

Research Article**CYBERBULLYING VICTIMIZATION AND ITS IMPACTS ON EMOTIONAL STRESS, ANXIETY, AND DEPRESSION LEVEL AMONG UNIVERSITY STUDENTS IN BANGLADESH****Md. Aminul Islam****Department of Sociology, Jagannath University, Dhaka - 1100, Bangladesh**Received: 12 June 2022, Accepted: 06 October 2022***ABSTRACT**

The present paper focuses on cyberbullying among university students in Bangladesh, as this problem has not sufficiently been addressed yet. By doing a survey on 570 both Honors and Master's students between the ages of 18 and 28 at Jagannath University, the aim of this study is to know whether cyberbullying is prevalent and whether university students who suffer from cyberbullying victimization are more likely to experience emotional stress, anxiety, or depression. It is noteworthy that around 26 percent of students became victims of cyberbullying. The results of Pearson's correlation coefficient clearly reveal that there is a statistically moderate positive association between cyberbullying victimization and students' emotional stress, anxiety, and depression ($r = .33, .36, \text{ and } .37$ respectively). Furthermore, the results of bivariate regression analyses also confirm a positive relationship between being a victim of cyberbullying and emotional stress, anxiety, and depression (unstandardized $\beta = 0.159, 0.176, \text{ and } 0.189$, respectively).

Keywords: *Cyberbullying, Cyberbullying victimization, Emotional stress, Anxiety, Depression, University students*

Introduction

Cyberbullying has emerged as a problematic issue among school as well as university students globally because of the increased and easy access to different sources of information and communication technologies. Although many studies have been done on cyberbullying among university students globally, this problem has not been thoroughly studied in Bangladesh. Nowadays, children, adolescents, and youths spend a significant amount of time on social media and electronic devices, which are positively correlated with negative physical and mental health outcomes (Albdour *et al.*, 2019). The advancement of different kinds of technological devices has helped to decrease the price of mobile phone sets, different types of computers, and internet services. As a result of this type of advancement, the nature of bullying has taken on a multi-

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dimensional aspect, crossed the boundaries of earlier forms of bullying, and entered the digital arena, which is called cyberbullying. It is worth mentioning that many studies have already been done on aggression and bullying that guide academics in conceptualizing cyberbullying. Moreover, the gap between the improvement in information and communication technology and the scarcity of studies on cyberbullying among university students suggests that more extensive study is required to understand the nature and scope of this new type of bullying (Aricak *et al.*, 2008).

Generally, cyberbullying occurs when willful and repeated harm is inflicted upon someone by the means of information and communications technologies (Siegel, 2009). Since cyberbullies can hide their identities, people of any age group can do cyberbullying as well as can be the victim of it.

Previous research on cyberbullying generally depicts that mischief is anticipated in the occurrence of cyberbullying (Akbulut and Eristi, 2011). Some other studies also show that cyberbullying can have a number of negative impacts, including emotional suffering, low self-esteem, a higher level of anxiety, etc. (Eristi and Akbulut, 2019). Likewise, as becoming a cyberbullying victim and academic achievement are inversely related, cyberbullying is most likely to affect different aspects of university students (Eristi and Akbulut, 2019).

However, university students in Bangladesh are right now, especially during the COVID-19 pandemic, using more internet and spending more time on social media. As a result, the students or other persons are able to create a cyberspace and inflict willful and repeated harm, i.e., cyberbullying, upon other students through the computer via the internet or mobile phone-based communications without being physically visible. Therefore, as there is a dearth of research on cyberbullying victimization and its impacts on the emotional stress, anxiety, and depression levels of university students, it is necessary to explore whether cyberbullying prevails among university students and whether students who suffer cyberbullying victimization are more likely to experience emotional stress, anxiety, or depression.

Literature Review

Although many researchers have been studying the occurrence, factors and effect of cyberbullying on school going kids over the last two decades, little attention, however, has been given to studying the impact of cyberbullying among university students. Generally criminologists refer the term ‘bullying’ to the children or any other persons who commit repeated negative acts against other children or any other persons. Siegel (2009) narrates that bullies usually harass their victims in two ways: (1) bullies can use computers or tabs and send embarrassing e-mails or text messages, post vulgar, humiliating and defamatory information to internet or social media, or purposefully develop web portals for disclosing harmful messages; (2) cyberbullies can use mobile phones to disseminate embarrassing messages to victim students. Moreover, he highlighted a survey result which showed that one-third of American youths aged 12 to 17 years old became victims of cyberbullying in the preceding 12 months (Siegel, 2009). However, some studies regarding cyberbullying and its impact on school students have been done in Bangladesh. The present research, first of all, reviews some of these studies below.

According to Sarker and Shahid (2018), 47.62 percent of students opine that cyberbullying might affect a student mentally; 38.09 percent report that it could discourage them from going to school; and 57 percent express their view that it could make the student fearful to use the internet. UNICEF's (2019) study findings also show that cyberbullying may cause serious harm since it can spread humiliating messages instantly through a town or country and can be accessible online for an indefinite period of time.

While no study explored the prevalence, causes, and impacts of cyberbullying on university students in Bangladesh, a couple of studies have been done regarding cyberbullying among university students in different countries. For example, Khine *et al.* (2020) demonstrated that 40.8 percent of males and 51.1 percent of female university students in Myanmar experienced cyberbullying in the last 12 months.

Myers *et al.* (2017) found that students who are habituated to bully at the university level might have been continuing this for years and might assume their actions are acceptable and very usual (Myers *et al.* (2017). Likewise, Porhola (2015) found that there is a continuation of bullying at school and university levels. Porhola's (2015) study findings confirm that around 50 percent of bullies at the university level were the victims at the school level (Myers *et al.*, 2017).

Porhola (2015; Cassidy *et al.*, 2017) also identifies the everlasting effects of becoming the victim of bullying at the school level, which can persist into adulthood. Porhola (2015) shows that the negative impacts are related to trust level, isolation, anxiety, depression, refraining from the normal course of life, and a low level of self-esteem. Cassidy *et al.* (2017) also showed that the findings of these studies revealed some severe negative impacts on university students' mental and physical aspects, for example, being angry, sad, hurt, embarrassed, hatching hostility, suffering from increased anxiety and depression, developing suicidal tendencies, feeling loneliness, going through severe relationship problems, being fearful, developing a crying tendency, being habituated to blame themselves, assuming to have low self-esteem, having problems paying full attention to studies, which results in a lower grade in examination, as well as starting to remaining absenteeism (Cassidy *et al.*, 2017).

Cassidy and her associates' (2017) study findings, based on four Canadian universities, revealed that the victims of cyberbullying experienced different kinds of mental and physical problems. They found that university students were cyberbullied chiefly by other university students, whereas university teachers as well as supporting staff were cyberbullied by both the university students and their fellow co-workers. Surprisingly, both the students and the university teachers opined that they faced almost the same type of negative impacts because of being cyberbullied. They sometimes become sad, feel embarrassed, are hurt, feel dishonored, are wounded, are marginalized, and sometimes develop a sort of feeling to take revenge (Cassidy *et al.*, 2017). Their study findings, moreover, revealed that cyberbullying imposed a negative impact on students' academic results and their different social bonds. Moreover, victims of cyberbullying start avoiding some specific people as well as some identified places where they once experienced cyberbullying. Turan and her associates (2011) showed that more than 50% of their study respondents suffered from negative effects due to being cyberbullying victimization. 54.4% respondents of Turan and her associates' (2011) study were affected by cyberbullying. Among the

affected respondents, 80.6% reported that they became angry, 20% were scared, 12.7% were excited, 8.9% were embarrassed, 6.3% were hurt, and 3.5% blamed themselves, respectively.

The above-mentioned literature reviews revealed that cyberbullying was not a unique problem related to adolescence but a concerning issue extending to adulthood globally. It, moreover, demonstrated that most of the studies on cyberbullying in Bangladesh have completely focused on school students, but very few studies have focused on university students. Moreover, as many of the above studies that were done on cyberbullying among university students in different countries clearly found the occurrence of cyberbullying and its serious negative consequences among them, this type of crime might also be present among university students in Bangladesh. Moreover, as cyberbullying is prevalent among school-going students in Bangladesh and many of them eventually got admitted into universities, some of them might continue to be bullies and some of them might be victims of cyberbullying. Besides, as the negative impact of cyberbullying among school students was confirmed by some studies in Bangladesh, cyberbullying might have some negative impacts on university students too. Since there are a few studies that have focused on cyberbullying among university students, there is a gray area regarding the prevalence and negative consequences of cyberbullying at the university level in Bangladesh. Therefore, this vacuum gives a delicate basis on which to embark on research, fills up this gap a bit, and sheds a new light on cyberbullying research in Bangladesh.

Objectives of the study

The broad objective includes knowing the victims of cyberbullying as well as its impact on Bangladeshi university students.

Specific objectives include:

- i) to know the socio-demographic and economic characteristics of the respondents;
- ii) to know the level of emotional stress, anxiety, and depression among university students because of being the victim of cyberbullying.

Hypothesis: This study seeks to test the following hypothesis:

Students who suffer from cyberbullying victimization are more likely to experience emotional stress, anxiety, and depression.

Rationale of the study

It is notable that the modern world is increasingly characterized by a great advancement in information and communication technologies. The pace of diffusion of these technologies, especially internet use via mobile phone sets or different types of computers, is several hundred times faster than it was earlier. The cost of using the internet has also been kept low. As a result, almost all the students of universities and other people are now using mobile phones or some kinds of electronic devices with internet connections. The data from Internet World Stats (2020) show that as of March 2020, 60.7% of the population in Bangladesh is now using the internet at any capacity, whereas 31.9% were in 2015.

As a result of excessive use of the internet, bullying has now transitioned from a physical occurrence to virtual harassment. Since the students and other people can create their own

cyberspace and the problem of remaining physically present has diminished, they can bully anyone from anywhere electronically (Siegel, 2009). Moreover, the COVID-19 pandemic has forced many of us, especially university students, to rely heavily on the internet in order to attend online classes, search for reading materials, do their assignments, or appear at online exams. So, it is evident that university students spend a longer period of time on the internet, which provides many university students with ample opportunity to create a cyberspace and do cyberbullying. Consequently, some students become the victims of cyberbullying, which has negative impacts on them.

In addition, many earlier studies confirm that cyberbullying at the university level imposes some kinds of negative impacts on students. For example, low level of trust, social isolation, suffering from anxiety and depression, withdrawal from the normal course of life, and possession of a low level of self-esteem (Porhola, 2015; Cassidy *et al.*, 2017). Therefore, the present study finds it logical to investigate if university students in Bangladesh also suffer from some types of problems, especially emotional distress, anxiety, and depression because of being the victims of cyberbullying.

Materials and Methods

Participants

Survey data was collected online from the current students of Honors and Master's aged 18 to 28, at Jagannath University, Dhaka. The online survey covers 570 samples, comprising both male and female students. The study was based on a convenience sample. Samples were willingly provided for the survey. The researcher posted the self-administered questionnaire in different online groups to different years/batches of various departments, and the students were informed to participate voluntarily. Therefore, the respondents had full freedom regarding participating in or declining the survey. Moreover, although the total number of participating students was 570, the researcher took the respondents who became victims of cyberbullying (N = 147) into consideration for analysis.

Research Design

For conducting the present research work, a cross-sectional survey design was followed. As the researcher does not have any intention to repeat this study in the near future, a cross-sectional survey was the perfect method to accomplish the study on cyberbullying. The present study tried to find out whether some university students who have been the victims of cyberbullying are more likely to experience emotional stress, anxiety, and depression. And as most of the university students are experts in using the internet, the online survey method seemed conducive to carrying out this study. Moreover, since all of the respondents are educated, a self-administered questionnaire was used to collect data electronically.

Measures

Dependent Variables

The dependent variables of the study are the degree of experiencing emotional stress, anxiety, and depression. The study measured the degree of experiencing emotional stress, anxiety, and

depression because of being a victim of cyberbullying. To measure depression, anxiety, and stress, the present study used the Depression, Anxiety, and Stress Scale-21 (DASS-21; Martínez-Monteagudo *et al.*, 2020). The Depression Anxiety Stress Scale-21 (DASS-21) is a reduced version of the Lovibond and Lovibond (1995) scale, which was used for measuring depression, anxiety, and stress (Martínez-Monteagudo *et al.*, 2020). The DASS-21 scale, with a total of 21 items, takes three factors into consideration: anxiety, depression, and stress. The depression subscale measured dysphoria, hopelessness, sadness, anhedonia, depreciation of life, self-contempt, and a lack of interest or involvement. The anxiety subscale measured different aspects of psycho-physiological activation or autonomous excitation (sweating hands, tremor, etc.) and subjective experiences of anxiety. Lastly, the stress subscale measured the difficulty in being relaxed, nervous excitation, agitation, irritability, and impatience (Martínez-Monteagudo *et al.*, 2020). This test has satisfactory convergent validity and suitable discriminant validity (Martínez-Monteagudo *et al.*, 2020). Reliability was measured using Cronbach's alpha, which was found to be acceptable for the three scales (Martínez-Monteagudo *et al.*, 2020).

The study created three indices based on a bunch of questionnaire items on depression, anxiety, and stress by doing exploratory factor analysis, and reliability was verified for confirming the internal consistency of the scale, i.e., ensuring Cronbach's Alpha was at an acceptable level. In the present study, the reliability of these three indices was found satisfactory, having Cronbach's alphas of 0.79, 0.81, and 0.81 for the factors of anxiety, depression and stress indices, respectively.

Independent Variable

Victim of cyberbullying/cyberbullying victimization: The main independent variable of the study is becoming a victim of cyberbullying. The study examined whether university students who have been the victims of cyberbullying are more likely to experience emotional stress, anxiety, and depression.

With a view to measuring cyberbullying victimization, the "Cyberbullying Scale" (CBS) was used in the present study. The cyberbullying scale is a 16-item scale presented by Stewart (2014; Saleem *et al.*, 2021). The CBS measures cyberbullying victimization by asking the respondents about their lives' experiences in the past six months. The first two items of CBS were used to know the methods of cyber victimization and perpetration (e.g., via email, text messages, social media websites, etc.). The present study did not include these two questions as it did not focus on the perpetration of cyberbullying. Rather, this study included the remaining 14 items that measure different scenarios of cyberbullying (Saleem *et al.*, 2021). Students were presented with scenario questions such as "How often do you get online or text messages from another person threatening you with violence of any kind or hurting you physically?" and were asked to respond on a five-point Likert scale (1 = never; 2 = almost never; 3 = sometimes; 4 = almost all the time; 5 = all the time). A total score was calculated by summing the scores for the 14 items. The total score of the Cyberbullying Scale (CBS) ranges from 2 to 59. A score of 14 indicates that the respondent has never been cyberbullied, and a score of 59 indicates that the respondent has been severely cyberbullied. The rationale behind the selection of this instrument is its proven psychometric

properties. The instrument is represented by a one-factor model validated through Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). The Cronbach's α was 0.94 in the original study, and there was a significant positive correlation with constructs of anxiety, depression, and loneliness (Saleem *et al.*, 2021).

In this study, a "cyberbullying victimization index" was created based on these 14 items of the cyberbullying victimization scale by doing an exploratory factor analysis. The reliability was verified for confirming the internal consistency of the scale, i.e., for ensuring Cronbach's Alpha's acceptable level of value. In the present study, the reliability index was found satisfactory, with a Cronbach's alpha of 0.88.

Other independent variables, including gender, age, educational level, parents' living conditions, monthly family income, the father's educational qualification, the mother's educational qualification, the father's occupational status, the mother's occupational status, and the duration of using the internet (weekly), were used to gather demographic information about university students. It gives a scope for examining the research problem in different ways in the future. The study calculated mean, standard deviation, range, skewness, and kurtosis to ensure how far the sample distribution of this study is normally distributed. In addition, variance inflation factor (VIF) and tolerance were also examined in order to check whether there were any multicollinearity issues in the set of multiple regression variables of the present study.

Results and Discussion

Results

After screening the data, the researcher analyzed it with the help of Statistical Package for Social Sciences (SPSS) software version 20. The present study was conducted on the basis of three levels of data analysis, i.e., univariate, bivariate, and multivariate analyses. The results are presented in the following sections.

Results of the Univariate Analysis

The data in Table 1 show that around 26% of university students became victims of cyberbullying, while a large number of students (74%) did not suffer from cyberbullying victimization.

Table 1. Percentage distribution of the respondents by being victim of cyberbullying

Victim of cyberbullying	Frequency	Percentage (%)
Did not become victim of cyberbullying	423	74.2
Become victim of cyberbullying	147	25.8
Total	570	100

Source: Online survey, 2021

It is noteworthy that, among the total respondents, only N = 147 respondents, who were the victims of cyberbullying, were taken into consideration for the rest of the analysis.

Table 2. Percentage distribution of the respondents' demographic information

Sex of the respondents	Frequency (N=147)	Percentage (%)
Male	59	40.1
Female	83	56.5
System missing	5	3.4
Total	147	100
Age groups	Frequency (N=147)	Percentage (%)
18-20 years	14	9.5
21-23 years	99	67.3
24-26 years	29	19.7
System missing	5	3.4
Total	147	100
Education level	Frequency (N=147)	Percentage (%)
Honors first year	19	12.9
Honors second year	24	16.3
Honors third year	39	26.5
Honors fourth year	42	28.6
Masters	18	12.2
System missing	5	3.4
Total	147	100
Family monthly income (thousand in tk.)	Frequency (N=147)	Percentage (%)
Less than 10000	29	19.7
10001 to 20000	26	17.7
20001 to 30000	34	23.1
30001 to 40000	16	10.9
40001 to 50000	18	12.2
50001 to 60000	8	5.4
60001 and above	11	7.5
System missing	5	3.4
Total	147	100

Source: Online survey, 2021

The data in Table 2 reveal that, among the total respondents, around 57% were female students, while the rest (40%) were male. The missing value is only 3.4 percent, and it remains almost the same for all of the variables. Most of the students (around 67%) belong to the age group of 21 to 23 whereas the second-highest group of students (about 20%) belongs to the age group of 24 to 26 years. Only around 10% of students' ages are between 18 and 20 years old. Among the students who became cyberbullying victims, around 29% are from Honour's fourth year, whereas around 27% are from third year. Second-year students' share is 16%, and 13% of first-year students became victims of cyberbullying. Among the master's students, only 12% experienced cyberbullying victimization.

It is also evident from the data (Table 2) that most of the university students who became victims of cyberbullying come from middle-class families. The monthly income for this class is between Tk. 20,001 and Tk. 50,000. The second-highest student's family class position belongs to a lower stratum, in which their monthly income is up to Tk. 20,000, while only 13% of students, whose monthly family income is more than Tk. 50,000, are from the upper class.

Table 3. Percentage distribution of the respondents' duration of Internet using

Duration of Internet using	Frequency (N=147)	Percentage (%)
Less than 3 hours	6	4.1
3 to 6 hours	25	17
6 to 9 hours	24	16.3
9 to 12 hours	15	10.2
12 to 15 hours	22	15
More than 15 hours	50	34
System missing	5	3.4
Total	147	100

Source: Online survey, 2021

According to the data in Table 3, 34% of cyberbullying victims students use the internet for more than 15 hours per week, while only 4% use it for less than 3 hours per week. Moreover, it is also evident that 16% and 15% of university students use the internet for 6 to 9 hours and 12 to 15 hours every week, respectively. 17% of respondents' weekly internet use duration is between 3 and 6 hours, whereas the rest 10% of students' usage hours fall between 9 and 12 hours.

Results of the Bivariate Analysis

This section consists of the results of the bivariate analysis, in which the researcher examines the degree and direction of association between anxiety, depression, and emotional stress on students because of being victims of cyberbullying.

Table 4. Correlation between cyberbullying victimization and anxiety, depression, and emotional stress on university students

		Correlations			
		Cyberbullying Victimization Index	Anxiety level Index	Depression level Index	Stress Index
Cyberbullying Victimization Index	Pearson Correlation	1	.333**	.355**	.369**
	Sig. (2-tailed)		0.000	0.000	0.000
	N	141	121	124	122
Anxiety level Index	Pearson Correlation	.333**	1	.759**	.807**
	Sig. (2-tailed)	0.000		0.000	0.000
	N	121	121	119	117
Depression level Index	Pearson Correlation	.355**	.759**	1	.807**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	124	119	124	119
Stress Index	Pearson Correlation	.369**	.807**	.807**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	122	117	119	122

** Correlation is significant at the 0.01 level (2-tailed)

The patterns of the correlation coefficient indicate that the independent variable, i.e., the cyberbullying victimization index, is statistically significantly correlated with all three dependent variables, i.e., anxiety, depression, and stress. The result of Pearson's correlation coefficient indicates that there is a moderately positive relationship ($r = .33, .36, \text{ and } .37$ respectively) between cyberbullying victimization and anxiety, depression, and stress among students, and the result is statistically significant at the level of 0.001. And this result supports the present paper's hypothesis, which means if cyberbullying victimization increases, the level of anxiety, depression, and stress among university students goes up moderately.

Results of the Bivariate Regression Analyses

To explain the variance in anxiety, depression, and stress among university students because of being victims of cyberbullying, three separate bivariate regression models were run. These models included only one main independent variable, i.e., cyberbullying victimization, and three dependent variables, i.e., anxiety, depression, and stress. The paper did not include other control variables into the models, as the present paper's objectives do not include those for testing.

Table 5. Bivariate regression analysis of cyberbullying victimization on the level of anxiety of students

Coefficients					
Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.148	1.321		3.141	0.002
Cyberbullying Victimization Index	0.159	0.041	0.333	3.859	0.000

n=147; R square = 0.111 and Adjusted R square = 0.104

Table 6. Bivariate regression analysis of cyberbullying victimization on the level of depression of students

Coefficients					
Model 2	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.292	1.348		2.441	0.016
Cyberbullying Victimization Index	0.176	0.042	0.355	4.190	0.000

n=147; R square = 0.126 and Adjusted R square = 0.119

Table 7. Bivariate regression analysis of cyberbullying victimization on the level of stress of students

Coefficients					
Model 3	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.862	1.345		2.871	0.005
Cyberbullying Victimization Index	0.181	0.042	0.369	4.345	0.000

n=147; R square = 0.136 and Adjusted R square = 0.129

The aforementioned 3 bivariate regression analyses clearly indicate that the results of these three models examine whether cyberbullying victimization impacts levels of anxiety, depression, and

stress independently among university students. It is seen that all three models R-squares are 0.11, 0.13 and 0.14 and their adjusted R-squares = 0.10, 0.12 and 0.13 respectively. All three models were a good fit, but neither was a strong fit. But these models still carry significance in explaining the variances on dependent variables due to the impact of independent variables.

The equation for model 1 confirms that the independent variable, cyberbullying victimization (adjusted R-square = 0.10), accounts for 11% of the total variation in anxiety. This is because the R-square is 0.11 and this is clear. Additionally, the model 2 shows that the R-square is 0.13, which indicates that the independent variable accounts for 13% of the total variation in depression (adjusted R-square = 0.12). Similarly, in the third model, it is found that since the R-square is 0.14 which indicates that 14% of the total variation in stress has been accounted for by the independent variable (adjusted R-square = 0.13). Moreover, these models are a good fit as there is no problem regarding collinearity because the tolerance score is less than 1 and the VIF score is less than 2.

Here, it is found that if one unit increases in cyberbullying victimization, it also tends to increase anxiety, depression, and stress among university students by 0.159, 0.176, and 0.189 (unstandardized β) respectively, and these all results are statistically significant at the level of 0.001. This positive relationship implies that university students who have been victims of cyberbullying experience increased emotional stress, anxiety, and depression. These results support the study's hypothesis that students who suffer from cyberbullying victimization are more likely to experience emotional stress, anxiety, and depression.

Discussion

The present research paper finds that the results of bivariate, i.e., Pearson's r , and bivariate regression analyses confirm that students emotional stress, anxiety, and depression levels are positively associated with cyberbullying victimization. It means that if university students become the victims of cyberbullying, their emotional stress, anxiety, and depression levels tend to increase. And, hence, these results support the paper's hypothesis that students who become cyberbullying victims are more likely to experience emotional stress, anxiety, and depression. A sort of similar result was found in a study done by Sarker and Shahid (2018) that 47.62% of students believed that cyberbullying might affect students mentally. Likewise, Cassidy and her associates' (2017) study findings, based on four Canadian universities, revealed that the victims of cyberbullying experienced different kinds of mental and physical problems (Cassidy *et al.*, 2017). Similarly, Khine *et al.* (2020) concluded that the victim of bullying was having difficulty concentrating and understanding lectures, as well as using abusive substances.

Furthermore, Cassidy *et al.*, (2017) showed that cyberbullying victimization may pose some severe negative impacts on university students' mental and physical aspects. Similarly, Cassidy and her associates' (2017) study findings showed that the victim of cyberbullying might feel sad, embarrassed, dishonored, hurt, wounded, marginalized, and sometimes develop some sort of ill motive to take revenge. Their study findings, moreover, revealed that cyberbullying imposed a negative impact on students' academic results as well as their different social bonds. Likewise, Turan and her colleagues (2011) found that more than 50% of their study respondents suffered from negative effects due to being the victims of cyberbullying.

Conclusion

The findings of the present study provide us with a clear answer to the research question of whether becoming the victim of cyberbullying impacts university students' emotional stress, anxiety, and depression. The study finds a statistically significant positive relationship between being the victim of cyberbullying and emotional stress, anxiety, and depression. The results of Pearson's r clearly dictate that there is a statistically moderate positive association. Furthermore, the results of bivariate regression analyses also confirm a positive relationship between being a victim of cyberbullying and emotional stress, anxiety, and depression.

Therefore, the study findings confirm that university students in Bangladesh who suffer from cyberbullying victimization are more likely to feel emotional stress, anxiety, and depression. As a result, the findings of this study unquestionably support the hypothesis of the present paper. As there are very few studies done on cyberbullying victimization among university students in Bangladesh, the findings of the present study help us know the prevalence and victimization of cyberbullying scientifically (around 26% have been victims of cyberbullying). And, hence, it is ostensibly clear that my research joins the very sizable existing cyberbullying victimization research indicating that university students who become the victims of cyberbullying are more likely to feel emotional stress, anxiety, and depression.

Moreover, since the sample size is fairly large, we may generalize this result to all university students in Bangladesh. However, as very few studies have been done on this topic, more research is suggested to test the reliability of the findings of the present study. Especially, more research should be done on the influential factors that contribute to cyberbullying perpetration.

As the findings of the present study confirm the existence of and cyberbullying victimization among university students in Bangladesh, the competent authority of universities in Bangladesh as well as concerned ministries or departments of the Bangladesh government might take the findings into account and chalk out an integrated program to reduce cyberbullying at a minimum level.

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