

Association Between Cyberbullying Victimization, Anxiety, Depression And Self-Esteem Among University Students

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Abstract:

The present study aimed to investigate the association between cyberbullying victimization, anxiety, depression, and self-esteem among university students. A total of 400 participants completed a self-report questionnaire that included measures of cyberbullying victimization, anxiety, depression, and self-esteem. Results showed that cyberbullying victimization was significantly positively correlated with anxiety and depression, and significantly negatively correlated with self-esteem. Furthermore, anxiety and depression were found to partially mediate the relationship between cyberbullying victimization and self-esteem, indicating that cyberbullying victimization may lead to lower self-esteem via increased anxiety and depression. These findings highlight the importance of addressing cyberbullying victimization in university settings to promote the mental health and well-being of students.

Keywords Cyberbullying victimization, self-esteem, anxiety, and depression.

Introduction

Internet and electronic devices are a central part of our life, especially in our youth (Boak, 2014). The use of electronic devices such as social networking service, instant messages changed the way in which youth communicate with each other (Boak et al., 2014). Information is being transmitted more quickly and easily through texting, video chatting, mails, online chatting, social media platforms, blogs, and other technical platforms, while these techniques have numerous advantages, such as effective knowledge transfer, there is also a bad side that is emerging. Information that is often transmitted has the potential to be harmful, annoying, and hostile. This brings up the concern of old-fashioned bullying techniques advancing into modern technology (Friedman, 2016) In a digital world youth is facing different kind of issues one of the major issues is Cyberbullying (Cross et al., 2009).

Bullying is the act of abusing, intimidating, or aggressively controlling people via threats, force, or compulsion. Bullying is defined as behavior that is repeated over time with the intention to aggressively damage others and involves a power imbalance (Smith, Sharp, 2017). This new phenomenon of cyberbullying is made up of seven different types. Following are the seven types of cyberbullying, flaming, internet harassment, cyber stalking, denigration, masquerading, outing, and exclusion. In contrast to online harassment, which involves sending messages repeatedly, flaming involves the electronic communication of angry, vulgar, and

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nasty comments. It occurs in public internet sites instead of personal message exchanges (Chibbaro, 2007). Harassment, blocking, and victims are some of the terms used for cyberbullying. Harassment is the deceptive or undesired behavior of a person or group and includes things like requests, threats, and blackmail (Patchin, 2015). Denying access is the definition of the term "blocking." If someone is blocked from joining a conversation, they often receive a warning indicating that access has been refused. A victim is an innocent person who has been harmed by another or an external power without their fault. Cyberbullying Victimization is linked with Self-esteem, Depression and Anxiety (Belsey, 2009).

Self-esteem is our positive or negative attitude towards ourselves (Rosenberg, 1995). People with positive self-esteem are totally satisfied with themselves, whereas people with low self-esteem are not satisfied with themselves. People with low self-esteem are demotivated and doubt their abilities. Previous research studies showed that victims of Cyberbullies suffer low self-esteem, they doubt their own abilities and are not capable to do any kind of work (Irwin et al., 2019)

Depression is Feelings of hopelessness, low self-worth, self-deprecation and loss of interest in daily life activities over a period of time (Lovebird, 1995). Research indicates that cyber victims are more likely to experience internalization issues like anxiety. Another internalizing disorder that has been linked to victimization and cyberbullying is depression. Previous research studies showed that there is a positive relationship between depression and cyberbullying victimization (Lynch, 2013). According to research studies victims of cyberbullies suffer severe kind of depression (Caoye, Tenanant, 2015).

Anxiety is defined as the state of excessive fear which leads to autonomic arousal and effect skeletal muscles, one issue that both bullies and victims may experience is anxiety, which is characterized as a negative affective state, anxiety is different from fear, it is a response to any future threat (Crocq, 2015). It is feeling of uneasiness, worry, and over reaction to situation (Bouras & Holt, 2007). Previous research studies showed that Cyber victimization correlated with anxiety positive correlation was also found for cyberbullies victims.

Literature Review

Extremiera et al. (2018) conducted a study on "Cyberbullying Victimization, Self-Esteem and Suicidal Ideation in Adolescence: Does Emotional Intelligence Play a Buffering Role?". This study measures correlation between suicidal ideation, emotional intelligence, and self-esteem, for this purpose he selected 1660 adolescents, age 14 years as a sample of the study. Scales of the study were Rosenberg self-esteem scale, suicidal behavior questionnaires, Wong and Law Emotional Intelligence Scale. Result of the study showed correlation between suicidal ideation, and low emotional intelligence with cyberbullying victimization, and showed link with low self-esteem.

A study on "Self-Esteem and Adolescent Bullying/Cyberbullying and Victimization/Cyber victimization Behaviors: A Person-Oriented Approach" was conducted by Palermi et al. (2022). Sample of the study were 936 adolescents age 13-16 years. Scales of the study were self-esteem questionnaires, Florence bullying and victimization scales, and Florence cyberbullying/cyber victimization scale. Findings of the study proved relationship between cyberbullying victimization and low self-esteem.

"Cyberbullying and self-esteem: An Italian study" was conducted by Palermi et al. (2017). The study aim is to analyse the relation between self-esteem and cyberbullying victimization. There are 438 participants were included in the study. Rosenberg self-esteem scale was used

for analyze the data. Result of the study proved that there is low self-esteem in cyberbullying victims.

“Relationship between suicidal thinking, anxiety, depression and stress in university students who are victims of cyberbullying” were measured by Martinez-Monteagudo et al. (2020). Objective of the study were to find out anxiety, depression, and stress among university cyberbullying victimize students. The European cyberbullying intervention project questionnaire, the depression anxiety stress scale-21 and the suicidality scale, scales were used to analyze the result. 594 males, 688 females were included in the study age 18 to 46 years. The result of the study proved that cyberbullying victimization increased the probability of high level of suicidal ideations, anxiety, depression, and stress.

“An Investigation of Short-Term Longitudinal Associations between Social Anxiety and Victimization and Perpetration of Traditional Bullying and Cyberbullying” was measured by Pabian, & Vandebosch, (2016). This study examine social anxiety among cyberbullying vicioms. 2128 subjects were included in the study, age 10-17. Result of the study proved high social anxiety among cyberbullying victims.

“Oh, What A Tangled Web We Weave: Cyberbullying, Anxiety, Depression, And Loneliness” was examined by Johnson, (2016). The present study find out the relationship between cyberbullying and depression, anxiety, and loneliness. Scales used in the study were child social experience questionnaires, internet used behavioral check list, loneliness questionnaire short-form, revised child anxiety and depression scale short-form. Cyberbullying scale. Result of the study indicates that cyberbullying is significantly correlated with anxiety, depression, and loneliness.

“Longitudinal and Reciprocal Relations of Cyberbullying with Depression, Substance Use, and Problematic Internet Use among Adolescents” was measured by Gámez-Guadix, 2013. Aim of the study was to find out association between cyberbullying, depression, substance use, problematic internet use. A total of 845 adolescents were included in the sample. result of the studies showed increased level of depressive symptoms, and high level of substance use among problematic internet users and cyberbullies.

The relationship between parental mediation and Internet addiction among adolescents, and the association with cyberbullying and depression was examined by Chang et al, (2015). Aim of the study was to measure the correlation between parental mediation, internet addiction with cyberbullying, and depression. 1808 school students were involved in the study. Result of the study proved the association between cyberbullying victimization, smoking, alcohol consumption, and depression.

Rationale

Cyberbullying is a term used to describe bullying or harassment that occurs across digital platforms including computers, smartphones, and social networking sites. Cyberbullying is increasing day by day. This study's goal is to understand cyberbullying victimization, which keeps happening more frequently as technology advances. The main purpose of this study is to examine the association between Cyberbullying victimization, anxiety, depression and self-esteem among university students. Previous studies just focused on college and school students, this study focused on university students and most important variables which was effected.

Objectives:

1. To examine the association between Cyberbullying Victimization, Anxiety, Depression and self Esteem among university students.

Hypotheses

H1. There is a significant relationship between Cyberbullying Victimization and self-esteem among university students.

H2. There is a positive relationship between Cyberbullying Victimization and Anxiety among university students.

H3. There is a positive relationship between Cyberbullying Victimization and Depression among university students.

Methodology

Sample

In this study 400 students were selected from universities of Rawalpindi and Islamabad. Data was collected through convenient sampling. Both male and female participants were included in this study. Participants from different universities of Rawalpindi and Islamabad were included. Participants who were able to understand English were included in the study. Participants who were cyberbullied only those were included, Participants having other cognitive illness were excluded.

Instruments:

Cyberbullying victimization Scale

This scale was developed by Buelgaet in 2012, this scale was used for the measurement of cyberbullying victimization. The 18 item scale was used to assess cyberbullies victim. The questionnaire consists of 5 statements that reflects the components of cyberbullies victimization. On a scale of 1 to 5, respondent's rate statement, with 1 indicating never and 5 indicating always (Buelgaet et al, 2012).

Rosenberg Self Esteem Scale:

RSE developed by Morris Rosenberg in 1965. The 10 items scale was used to measure the self-esteem among university students. It is a Likert type scale which measure self-esteem. The questionnaire consists of 4 statements that reflects the components of self-esteem. On a scale of 1 to 4, respondent's rate statement with 1 indicating strongly disagree and 4 indicating strongly agree (Rosenberg, 1965).

Patient Health Questionnaire (PHQ-9)

(PHQ-9) developed by Spitzer and his colleagues in 1999. The 9 items scale was used to measure the depression. It consists of 4 statements which reflects the symptoms of depression. On a scale of 1 to 4 respondent's rate statement with 1 indicating no difficulty at all and 4 indicating extreme issue (Spitzer et al. 1999).

Anxiety rating scale

This scale was developed by Zung M.D in 1929-1992. The 20 items scale was used to measure the depression. It is a Likert type scale. It consists of 5 statements which reflects the symptoms of Anxiety. On a scale of 0 to 4 respondent's rate statement with 0 indicating no anxiety and 5 indicating extreme anxiety.

Procedure

Convenient sampling was used to select 400 university students. Participants was given brief Introduction to the study. Participants has to fill consent forms, demographic sheet and questionnaires. They have provided with self-report questionnaires. All data was analyzed through using IBM SPSS.

Result

The present study aimed to identify the relationship between Cyberbullying victimization, self-esteem, anxiety and depression. Statistical Package for Social Sciences (IBM-SPSS-21) was used for the statistical analysis of the present study.

Reliability of scales used in this study:

Below is the table presenting the reliabilities of scales used in this study.

Table 1 Cronbach's Alpha reliability Coefficient's with Mean and Standard Deviation of Cyberbullying victimization scale, Rosenberg self-esteem scale, Patient health questionnaire and Anxiety self-rating scale (N = 400)

Variables	Items	M	SD	α	Skewness	Kurtosis
–						
CYBVICS	18	35.57	11.52	.853	.680	-.781
RSE	10	26.47	4.169	.716	.711	.091
PHQ	9	22.01	7.842	.896	1.266	1.535
ASE	10	18.40	9.414	.877	.711	-.219

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Note= CYBVICS: Cyberbullying victimization scales, RSE: Rosenberg self-esteem scale, PHQ: patient health questionnaire and ASE: Anxiety rating scale. M= Mean, SD= Standard deviation, α = Cronbach's Alpha reliability.

Table 1 indicates the reliability coefficient for Cyberbullying victimization scales (CYBVICS, $\alpha = .85$), Rosenberg self-esteem scale (RSE, $\alpha = .71$), patient health questionnaire (PHQ, $\alpha = .89$) and Anxiety rating scale (ASE, $\alpha = .87$) which shows that the instruments had acceptable reliability in this study. Therefore, it is concluded that all the instruments were internally consistent and were reliable measures of the constructs.

Descriptive Statistics for Instruments Used in the Study

The descriptive statistics for Cyberbullying victimization scale, Rosenberg Self-esteem, Patient Health questionnaire and Anxiety self-rating scale are presented in the following table3

Table 2 Descriptive statistics for Cyberbullying victimization scale, Rosenberg Self-esteem, Patient health questionnaire and Anxiety self-rating scale (N=400)

Variables	Items	Me	Mdn	Mo	SD	Skewness	Kurtosis
CYBVICS	18	35.5	31.0	25.0	11.5	.680	-.781
RSE	10	26.4	26.0	23.0	4.16	.711	.091
PHQ	91	22.0	20.0	16.0	7.84	1.26	1.53
ASE	10	18.4	17.0	14.0	9.41	.122	-.21

Note: = CYBVICS: Cyberbullying victimization scales, RSE: Rosenberg self-esteem scale, PHQ: patient health questionnaire and ASE: Anxiety rating scale. M= Mean, SD= Standard deviation.

Table 2 shows the values of mean, median and mode with the standard deviation.

Correlational analysis for scales

A correlation analysis was conducted to assess the relationship between Cyberbullying victimization, self-esteem. Depression and anxiety. Pearson correlation was computed as the data was normally distributed.

Table-3 Pearson correlations between Cyberbullying victimization scale, Rosenberg Self-esteem scale, Patient Health Questionnaire and Anxiety self-rating scale (N=400)

Variables	Scales	1	2	3	4
1.	CYBVICS	—			
2.	RSE	-1.02**			
3.	PHQ	.173**	-.664**	—	
4.	ASE	.173**	-.660**	.865**	—

Note:

CYBVICS: Cyberbullying victimization scales, RSE=Rosenberg self-esteem scale, PHQ: patient health questionnaire and ASE: Anxiety rating scale, **p<0.01, *p< 0.05, (1- tailed).

Table 3 indicates the correlation among all the variables. Cyberbullying victimization has a negative correlation with self-esteem ($r = -1.02^{**}$). This entails that Cyberbullying victimization is high so self-esteem will be low. Cyberbullying victimization has a positive correlation with depression ($r = .173$) which entails that when cyberbullying increase so depression also increase. Cyberbullying victimization has a positive relation with Anxiety ($r = .173^{**}$) means when level of cyberbullying increase anxiety also increased.

Discussion

Cyberbullying is define as the intentional and repeated use of technology to harass, harm, or embarrass someone. Aim of this study was to find the association between cyberbullying victimization anxiety, depression and self-esteem among university students

As technology advances, our young generation is dealing with a variety of problems. Cyberbullying, a relatively recent topic, affects students today and refers to the use of information and communication technology, such as e-mail, text messages from mobile phones and telephones, instant messaging (IM), defamatory personal websites, and defamatory personalized voting websites, to support hostile, repeated, and intentional behavior by an individual or group aimed to harm others. Majority of the bullying was verbal and sexual bullying. The accessibility of the internet have made cyberbullying a growing concern in recent years. Cyberbullying victimization has been linked to negative psychological outcomes such as anxiety, depression, and low self-esteem among university students.

First hypothesis of the study stated that “there is a significant relationship between Cyberbullying Victimization and self-esteem among university students”.

Result of the present study (table 3) revealed correlation between low self-esteem and cyberbullying victimization, the same findings is supported by the study of Patchin, & Hinduja, (2010) “Cyberbullying and self-esteem”. The study examined the correlation between cyberbullying and self-esteem. 1963 subjects were included in the sample. Result of the study proved the correlation between cyberbullying victimization and low self-esteem. Another study “Cyberbullying victimization and self-esteem in Australian adults”, results of the study indicate low self-esteem among cyberbullying victims (Brack, Caltabiano, 2014). “The relationship between self-esteem and cyberbullying: A meta-analysis of children and youth students” was measured by Lei et al. (2019). Aim of the present study was to investigate level of self-esteem and cyberbullying. 49406 students were included in the sample. Rosenberg self-esteem scale was used for analysis of the study. Result of the study proved low self-esteem among cyberbullying victims.

Anxiety is a major problem during adolescents that may make difficult for adolescents to communicate with others properly, but when these adolescents are victimized by cyberbullying, every new situation is interpreted more threatening for them.

Second hypothesis of the study stated that “There is a positive relationship between Cyberbullying Victimization and Anxiety among university students”

Result of the present study on (table-3) confirm the hypothesis and proved relationship between anxiety and cyberbullying victimization. “The moderation of empathy in the longitudinal association between witnessing cyberbullying, depression, and anxiety” is measured by Wright et al, (2021). There were 1090 participants were included in the study. Aim of the study was to analyze the relation between cyberbullying, depression, and anxiety. Result of the study proved the correlation between cyberbullying, depression, and anxiety. Another study that support our result Cyberbullying and Social Anxiety: A Latent Class Analysis among Spanish Adolescents

(Martínez-Monteaquedo et al., 2020). 1412 (12-18 years) participants were included in the study. Social anxiety scale for adolescents was administered on the sample.

Result of the study confirmed that participants with high cyberbullying score high on social anxiety scale. Coelho, Romao, (2018). Measured “The relation between social anxiety, social withdrawal and (cyber) bullying roles: A multilevel analysis”. Aim of the study was to find out the relation between bullying, social anxiety, and social withdrawal, result of the study revealed that there is high level of social anxiety in female participants as compared to boys, whereas high social withdrawal in boys as compare to girls.

As the use of internet increase, cyberbullying become more common, because of its psychological effects it becomes public mental health issues. Social interaction increased by using electronic means, which has negative consequences many studies confirm its profound psychological effect on human mind like anxiety, low self-esteem, loneness, suicidal ideation, and depression.

Third hypothesis of the study states that “There is a positive relationship between Cyberbullying Victimization and Depression among university students”.

Result on table-3 confirmed the association between cyberbullying victimization and depression. Maurya et al, (2022) conducted a study on “The effects of cyberbullying victimization on depression and suicidal ideation among adolescents and young adults: a three year cohort study from India” support our result. Sample of the study consist of 4428, and 11,864 adolescents (age 10-19 years). Result of the study proved that cyber bullying victimization increase the prevalence of depression among girls as compare to boys and confirmed that individuals who experience cyberbullying victimization were 2.07 times more prone to experience depression then to those who did not experience. Selkie et al, (2015) conduct a study on “Cyberbullying, depression, and problem alcohol use in female college students: a multisite study”. 265 female students were included in the sample. Scales of the study were patient health questionnaires-9, the alcohol use disorder identification test. Result of the study revealed that with any kind of involment in cyberbullying leads to increased level of depression.

Conclusion:

The purpose of this study was to find out the correlation between Cyberbullying victimization, Research suggests that there is a significant association between cyberbullying victimization and anxiety, depression, and low self-esteem among university students. Cyberbullying can have a profound impact on mental health, especially among young adults who are still developing their sense of identity and self-worth. Students who are repeatedly targeted by cyberbullies may experience feelings of isolation, and helplessness, which can contribute to a range of mental health problems. It is important for universities to take steps to prevent cyberbullying and support students who have been victimized. This may include developing policies and procedures for addressing cyberbullying, providing counseling and mental health services for affected students, and educating students about the risks and consequences of cyberbullying. By taking proactive measures to address this issue, universities can help to create a safer and more supportive learning environment for all students.

Limitation

- The limitation of this study would be the data was only collected from only twin cities so it can't be generalized.
- The study sample should be large.
- This research is specifically performed on university students.

Implications

Our youth is facing one of the major issue which is cyberbullying. The association between cyberbullying victimization, anxiety, depression, and self-esteem among university students highlights the need for universities to take a proactive approach to address this issue. By providing resources and support systems, promoting positive self-esteem, and raising awareness about cyberbullying.

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