

Association between Cyberbullying Victimization, Anxiety , Depression and Self-Esteem among University Students



by

Mahnoor Ahmed
BSP191001

A Research Thesis submitted to the
DEPARTMENT OF PSYCHOLOGY
in partial fulfillment of the requirements for the degree
of BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences
Capital University of Science &
Technology, Islamabad
January, 2023

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CERTIFICATE OF APPROVAL

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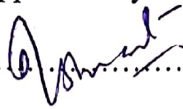
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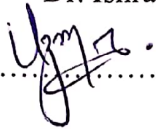
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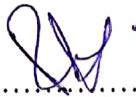
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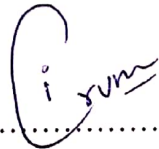
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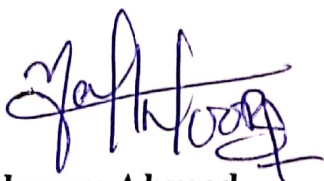
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DECLARATION

It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.



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January-2023

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DEDICATION

First of all, I want to dedicate this to Almighty Allah, who gave me the strength and opportunity to initiate and complete it.

To my family specially my mother and my father, Mr. Naqeeb Ur Rehman, for his support, resilience and affection during this thesis and my education.

To my supervisor, Dr, Ishrat Yousaf for her endless efforts, assistance, motivation, patience, and belief in me through the entire journey's trials and tribulations.

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Firstly, I am immensely grateful to Almighty Allah for his assistance throughout this expedition. It was His mercy that made it possible for me to complete this work in the first place. I am very thankful to my supervisor Dr. Ishrat Yousaf for her guidance and support. Her admirable efforts groomed me in many ways.

I am very thankful to my family for their love, support and care towards me. Their support gave me the courage and motivation to persist and do my best during thesis.

Last but not the least, I dedicate this dissertation to my friends Zain Shahbaz, Ahmar Malik for always listening to me, appreciating me and encouraging me, and to my mates Maryam Dawood and Hamna Nadeem for helping me a lot during research.

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List of Abbreviation

CYBVICS	Cyberbullying victimization scale
RSE	Rosenberg self esteem scale
PHQ	Patient health questionnaire
ASE	Anxiety self rating scale

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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.

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Chapter 1: 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). This advancement access to educational information, entertainment, and friendship interaction connected with electronics devices on a daily basis. 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. Such conduct was typically repetitive and habitual. 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)

Types of Bullying

Emotional bullying is a intentional act to harm someone, verbal abuse, ridicule, teasing, threats, lies and exclusion from a group. When someone is taunted, ridiculed, embarrassed, or insulted verbally, it is known as verbal bullying. Physical bullying refers to the use of one's own body or one's own actions to obtain control over and exercise authority over others (Olweus,2016). Cyberbullying is one of the new phenomena which is linked with traditional bullying (Davison, Stein, 2014) Cyberbullying involves electronic communications such as calls and text messages, websites and social platforms (Quintana Orts 2015). The repetitive, deliberate damage of another person through the use of technology, such as email, text messages from mobile phones, social networking websites, chat rooms, and instant messaging, is known as Cyberbullying (Beran et al, 2019). It may be committed by a single person or several persons. Cyberbullying is fully anonymous as compared to classical bullying where face to face interactions is required (Smith et al, 2008).

Terms of

Cyberbullying

Harassment

Harassment is the deceptive or undesired behavior of a person or group and includes things like requests, threats, and blackmail. The "repeated, continual sending of offensive texts to an individual" is another type of harassment (Patchin, 2015).

Blocking

Denying access is the definition of the term "blocking," which is used in relation to the use of online media. If someone is blocked from joining a conversation, they often receive a warning indicating that access has been refused.

Victim

A victim is an innocent person who has been harmed by another or an external power without their fault. A perpetrator is a person who causes pain or injury to unintentional victims.

Cyberbullying is a social problem that has arisen as a result of modern communications technology, particularly social networking websites like Facebook, Instagram, Snapchat, and Twitter. Posting rumors, threats, sexual remarks, private or sensitive information, or abusive language are all examples of cyberbullying. Due to the growth of social media, people now frequently publish comments, posts, images, and other content that can be seen by both friends and random people (Campbell et al, 2018).

Types of Cyberbullying

This new phenomenon of cyberbullying is made up of seven different types. Following are the seven types of cyberbullying: flaming, internet harassment, cyberstalking, denigration, masquerading, outing, and exclusion. In contrast to online harassment, which involves sending messages repeatedly, flaming involves the electronic communication of angry, vulgar, and nasty comments. It occurs in public internet sites instead of personal message exchanges (Chibbaro, 20007).

Cyberharassment is a type of cyberbullying in which offensive messages are delivered repeatedly to a target. Harassment typically occurs through non-public messages such as emails, but it can also be seen in public forms (Kowalski, Limber& Agatston,..2012).

Denigration (put-downs) is the dissemination to others of unpleasant and possibly false information about a person. which includes spreading gossip or rumors about a person in an

effort to damage reputations and friendships (Willard, 2006). It refers to the transmission of false facts or rumors on the internet, which can then be spread through private communication channels.

Masquerading is the act of faking another identity in order to spread information that may harm someone's connections or reputation. Sharing private or delicate facts about a person with others is known as "outing." Excluding someone from a group online on purpose is the last kind of exclusion (Mitchell, 2014).

Impersonation is a type of cyberbullying in which the perpetrator pretends to be the victim and sends or shares unwanted, harsh, or inappropriate information in an attempt to damage that character's reputation (Willard, 2006). Impersonation can also occur when the offender completely disguises himself as someone else in order to obtain information. This ties to another type of cyberbullying known as trickery, which involves convincing someone to reveal secrets and techniques or humiliating facts and then sharing them online (Kowalski, Limber & Agatston, 2012). sometimes trickery may additionally cause the outing, which refers to sharing of personal secrets and techniques or sensitive information without the victim's permission.

Cyberbullying is repetitive in nature and relationship between victim and perpetrator can be identify by power imbalance. Cyberbullying repetition is sending a single email to hundreds of recipients (Kowalski 2014). Some research studies shows that repetition is not an essential part of cyberbullying. . Cyberbullying is becoming more prevalent as technology advances and the number of social networking sites increases (Dooley 2009).

Cyberbullying Victimization is linked with Self-esteem, Depression and Anxiety (Belsey, 2009)

Self-esteem

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 victim 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

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

Anxiety is defined as the state of excessive fear which leads to autonomic arousal and effect skeletal muscles (Lovibond, 1995). One issue that both bullies and victims may experience is anxiety, which is characterised as a negative affective state (Craig, 1998). Previous research studies showed that Cyber victimization correlated with anxiety positive correlation was also found for cyberbullies victims. Many previous research studies showed that victims of cyberbullying suffer anxiety.

Literature Review

According to a study cyberbullying victimization rate is 10 -15% in university students (Lund,et,al, 2017). Males are more likely to be involved as a perpetrator and females as a cyber- victim, but no gender differences have been found.

Another study reported the rate of cyber bullying victimization in university students is 27% and perpetrator rate 8 % (Kota and Moreno 2016). Pakistan is one of the countries where internet access is rising rapidly. According to a global digital report, there are 73.68 billion users in Pakistan, with 37 million using social media on a daily basis (Haider 2020). 40% of women's suffer cyber harassment through Facebook, Instagram, email and snapchat (Haider 2020) Among the total cases of cyber harassment in Pakistan 215 cases of them are related to online stalking and 268 cases are gender violence cases. Women in Pakistan experience severe forms of cyberbullying and internet abuse. 40% women are online bullied and among them only 29% report cyber harassment. 9 out of 10 women journalists face cyber harassment (Women cyber harassment, 2006). The most widespread form cyberbullying is the disclosure of private information; which included emails, text news and pictures (Lenhart., 2007)

According to a research study girl are more often involved in cyberbullying than boys. older girls between the ages of 17 to 25, are most likely to be involved in some form of cyberbullying. Cyberbullies believed that thy are anonymous to the victim that's why they hurt more their victim as compared to face to face victim (Juvonen and Gross 2008).Cyber bullying is associated with anxiety, depression and self-esteem (Carvalho,2017). Cyberbullying increase the feeling of sadness, depression, anxiety (Ferrin, 2012).

Cyberbullying can also have a negative impact on an individual's self-esteem. Victims of cyberbullying may feel powerless, helpless, and inadequate, which can result in a diminished sense of self-worth and confidence. Cyberbullying victimization is positively associated with anxiety and depression: University students who experience cyberbullying are more likely to report symptoms of anxiety and depression compared to those who have not experienced cyberbullying. This relationship has been found in multiple studies, suggesting that cyberbullying can have a significant negative impact on students' mental health (Overbeek, 2016) Cyberbullying victimization is negatively associated with self-esteem: Students who experience cyberbullying are more likely to report lower levels of self-esteem compared to those who have not experienced cyberbullying. This relationship has also been found in multiple studies, suggesting that cyberbullying can have a negative impact on students' sense of self-worth (Bernasco, 2016) Anxiety and depression mediate the relationship between cyberbullying victimization and self-esteem: Several studies have found that anxiety and depression partially or fully mediate the relationship between cyberbullying victimization and self-esteem. This suggests that cyberbullying can lead to lower levels of self-esteem through its impact on students' mental health. Studies have shown that cyberbullying victimization can lead to increased levels of anxiety and depression among university students (Forbes, 2019) . These negative emotional states may arise due to the persistent and anonymous nature of cyberbullying, which can make it difficult for victims to escape or seek help. In addition, cyberbullying can cause social isolation and feelings of worthlessness, which can further contribute to anxiety and depression. Moreover, cyberbullying victimization can also negatively affect self-esteem among university students. Self-esteem refers to the perception of oneself, including one's worth and value as a person. Cyberbullying can erode self-esteem by exposing victims to negative and hurtful comments about themselves, leading to feelings of inadequacy and inferiority (Salmiwari, 1999).

Theoretical Framework:**Social Dominance Theory:**

Social dominance theory explains people's relatively strong desire to align inside an organized social order. According to the social dominance idea, society is made up of dominating groups who enjoy dominance over subjugated groups that are scarce. The superiority may appear, for example, as discrimination and gender inequity. According to the theory, the hierarchical structure of social groupings within a society functions as a setup that maintains the position of the illustrious group. Humans are predisposed to form social hierarchies based on groups, with caste, racial, and societal systems serving as simple examples. Age, gender, and income are the three stratification factors that are associated with social cycles arbitrary (Ptatto et al, 2014). According to a research study, the gender group is a system in which men and women do not have equal amounts of authority. Adults have an advantage over children in the age group system; however, men is more dominating and more social power than women. They also explained that the arbitrary group might be established around nationality and that it is defined by a specific class of people's racial background, religion, and socioeconomic class. Negative behaviors like physical violence and verbal abuse can be used as agonistic methods. Various research have revealed that these tactics are employed in the initial phases of group social hierarchies are formed through relationships. According to a research by de Waal (1986), after a position of dominance has been attained, people would turn to more affiliative tactics, such as influencing others to maintain social stability.

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. This study has provided the recommendations for university students to understand how Cyberbullies victims were affected negatively. 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

Chapter 2: Method

Research design

A quantitative correlational study was used to find out the Association between Cyberbullying Victimization, anxiety, depression and self-esteem among university students.

Population and sample

In this study 400 students were selected from universities of Rawalpindi and Islamabad.

Sampling Technique

Data was collected through convenient sampling. This sampling technique was used due to time duration and cost effectiveness.

Inclusion Criteria

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

Exclusion criteria

Participants having other cognitive illness were excluded.

Ethical consideration:

The study was conducted under the supervision of Dr.Ishrat and approved by Capital University of Science and Technology .Consent taking and debriefing was done. Participant can leave the study at any time. Confidentiality was ensured by the researcher.

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

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.

Patient Health Questionnaire (PHQ-9)

(PHQ-9) developed by Spitzer and 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.

Anxiety rating scale

This scale was developed by Zung M.D in 1992. .The 10 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.

Analysis:

Statistical Package for Social Sciences (IBM-SPSS-21) was used for the statistical analysis of the present study. After the data collection, data was entered; cleaned and descriptive statistics were analyzed. In descriptive statistics, the distribution and variance of the data were calculated. Mean, standard deviation, skewness and kurtosis were calculated through descriptive analysis. Demographics among the targeted sample were age, gender, education, socioeconomic status, GPA, CGPA. The frequencies of these demographics were computed. The reliability of cyberbullying victimization, Rosenberg self esteem scale, Patient health questionnaire and anxiety rating scale was examined through Cronbach's Alpha in inferential statistics.

Chapter 3: Results

The present study aimed to identify the relationship between Cyberbullying victimization, self-esteem, anxiety and depression. Hypotheses were tested using quantitative analyses in SPSS- 21.

Demographic Characteristics

Table 1

Descriptive Analyses of demographic variables of the study participants (N=400).

<i>Demographic variables</i>	<i>Categories</i>	<i>f</i>	<i>%</i>
Gender	Male	185	46.3
	Female	215	53.8
Age	18	67	16.8
	19	82	20.5
	20	86	21.5
	21	93	23.3
	22	60	15.0

	23	12	3.0
Socio-economic status	Upper class	94	23.5
	Middle class	263	65.8
	low class	43	10.8
Religion	Muslim	396	99.0
	Christian	4	1.0
Nationality	Pakistani	394	98.5
	Other	6	1.5
Current Semester	2	4	1.0
	3	154	38.5
	4	36	9.0
	5	83	20.8
	6	23	5.8
	7	65	16.3
	8	32	8.0
	10	3	.8
Current CGPA	1.00 -2.00 CGPA	27	6.8

	2.1-3.00 CGPA	162	40.5
	3.1-4.00 CGPA	211	52.8
TSM	1-9 hours	335	83.8
	9-19 hours	61	15.3
	20-24 hours	4	1.0
TB	1-2 times	266	66.5
	3-5 times	117	29.3
	above	17	4.3

Note: TSM= How many times spend on social media, TB= how many times you are bullied

Table demonstrates the frequency and percentages of the demographic variables.

Table illustrates that 53.8 were females and 46.3 were males. Age range was 18-23. Percentage of upper class family was 23.5%, 65.8 % was from middle class and 10.8 was from low class family. 99% participants were Muslims and 1.0% was Christians. 98.5% participants were Pakistani and 1.5% has different nationality. 1.0 participants were in 2nd semester,38.5% participants were in 3rd semester,9.0% participants were in 5th semester,5.8%participants was in 6th semester,16.3%participants were in 7th semester,8.0% participants were in 8th semester and .8% participants were in 10th semester.

Figure 1

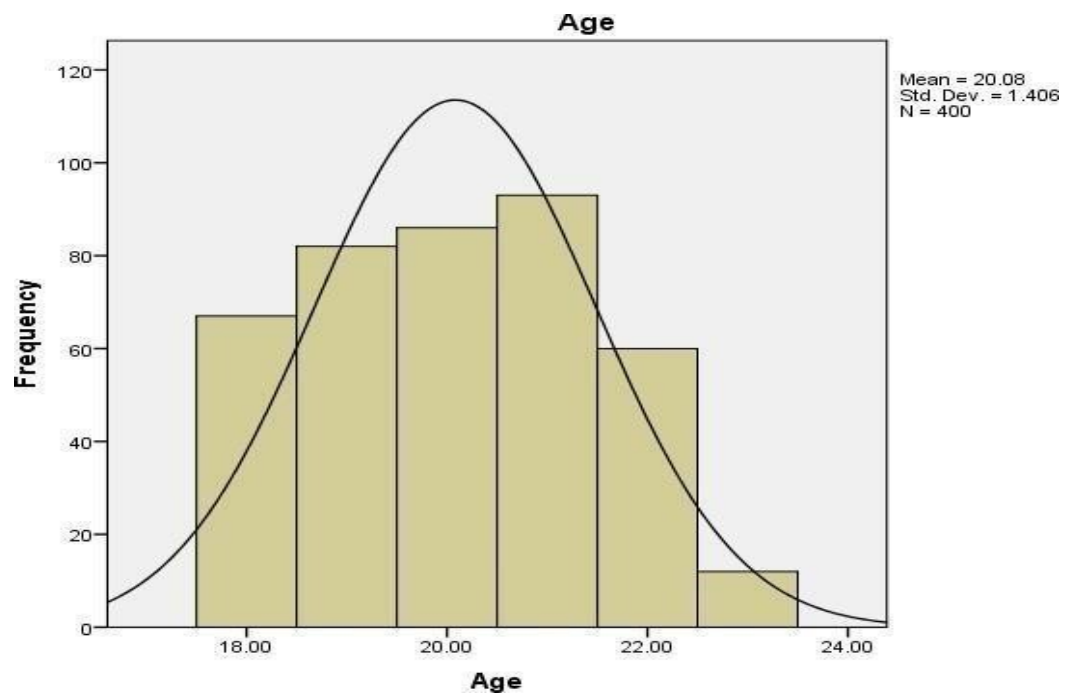


Figure 2

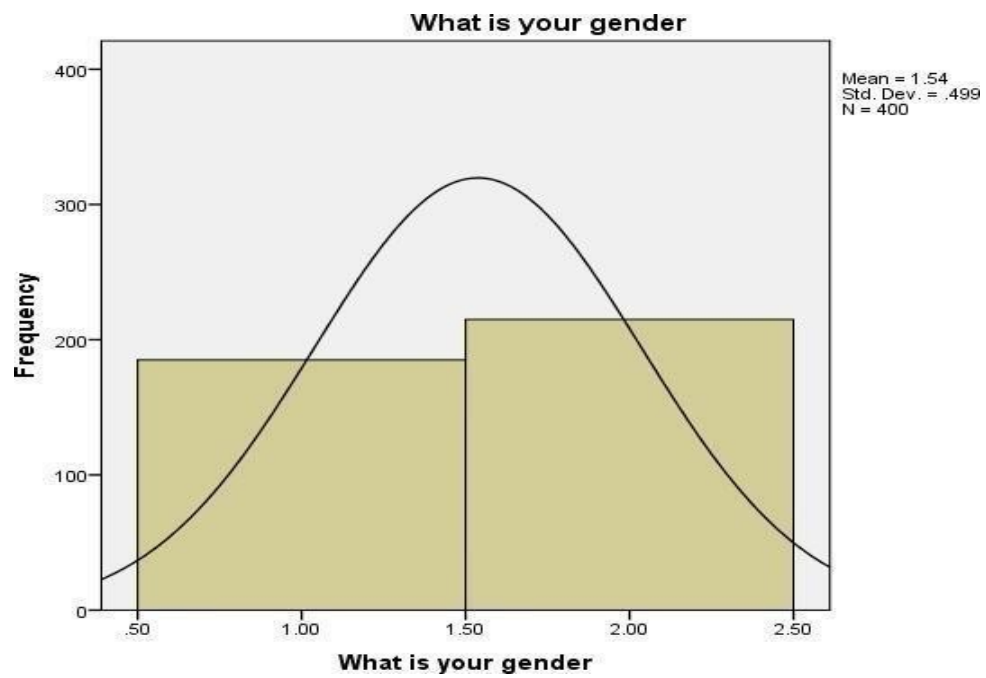


Figure 3

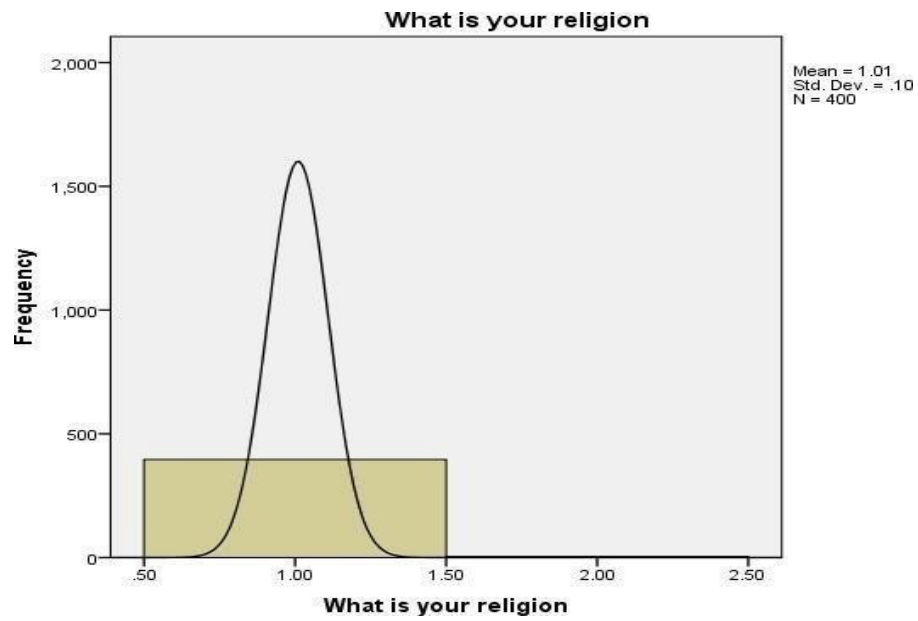


Figure 4

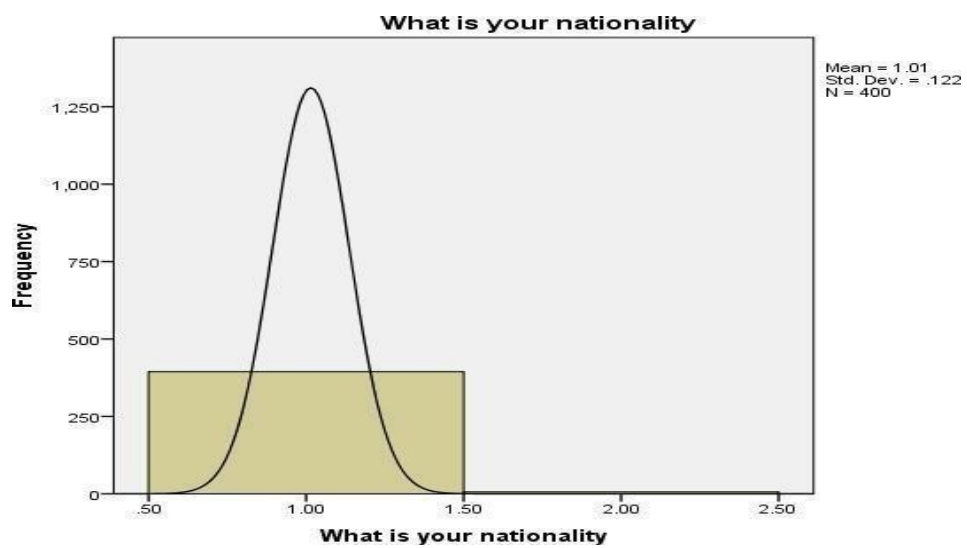


Figure 5

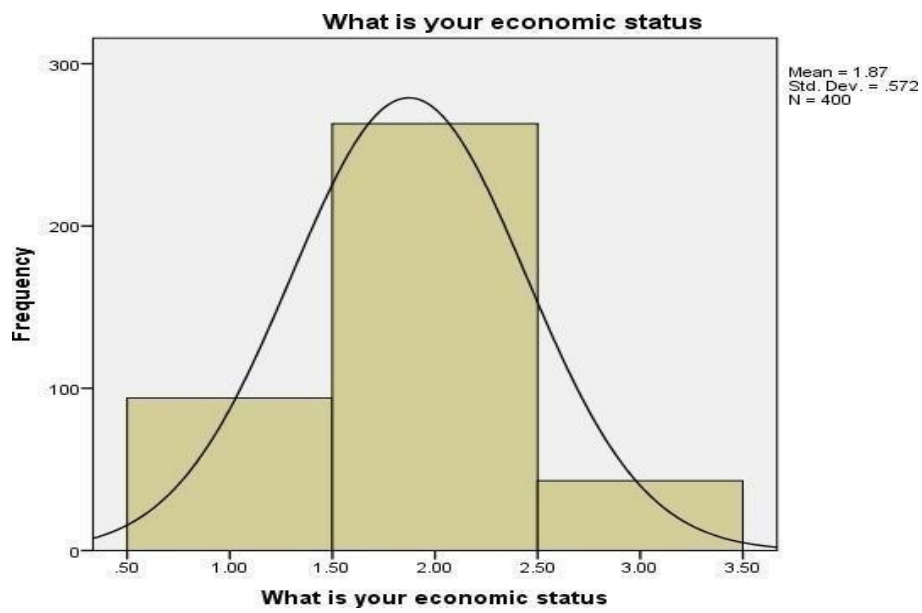


Figure 6

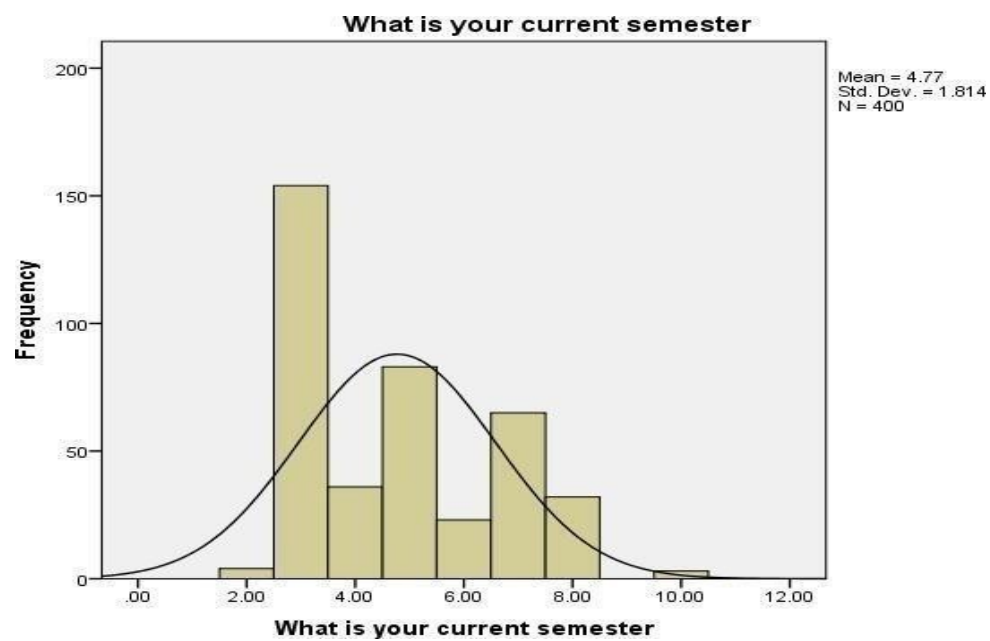


Figure 7

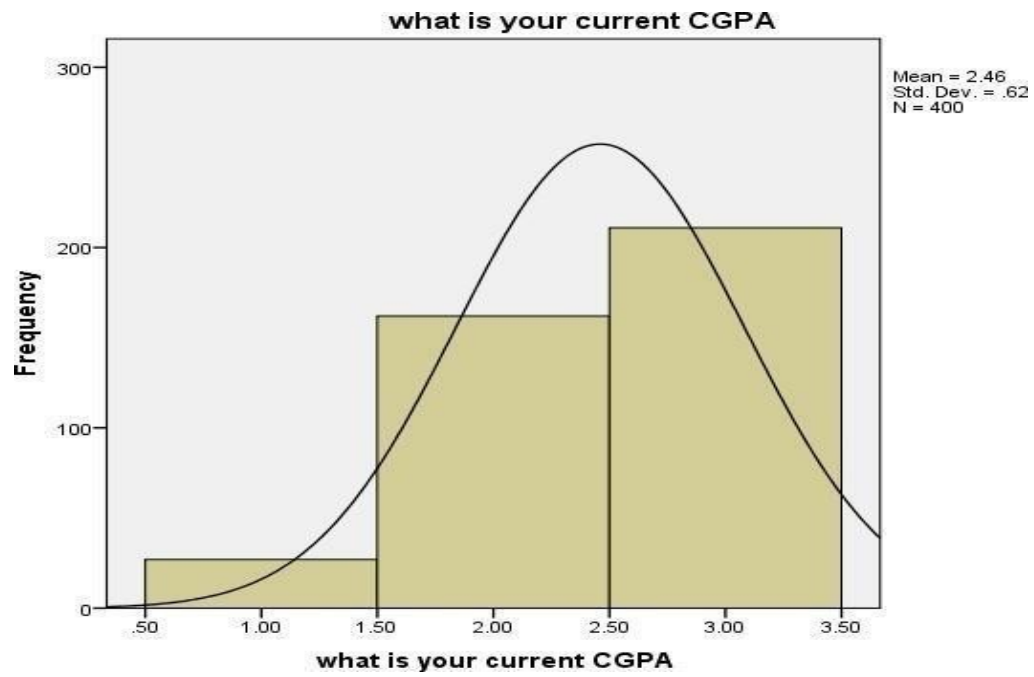


Figure 8

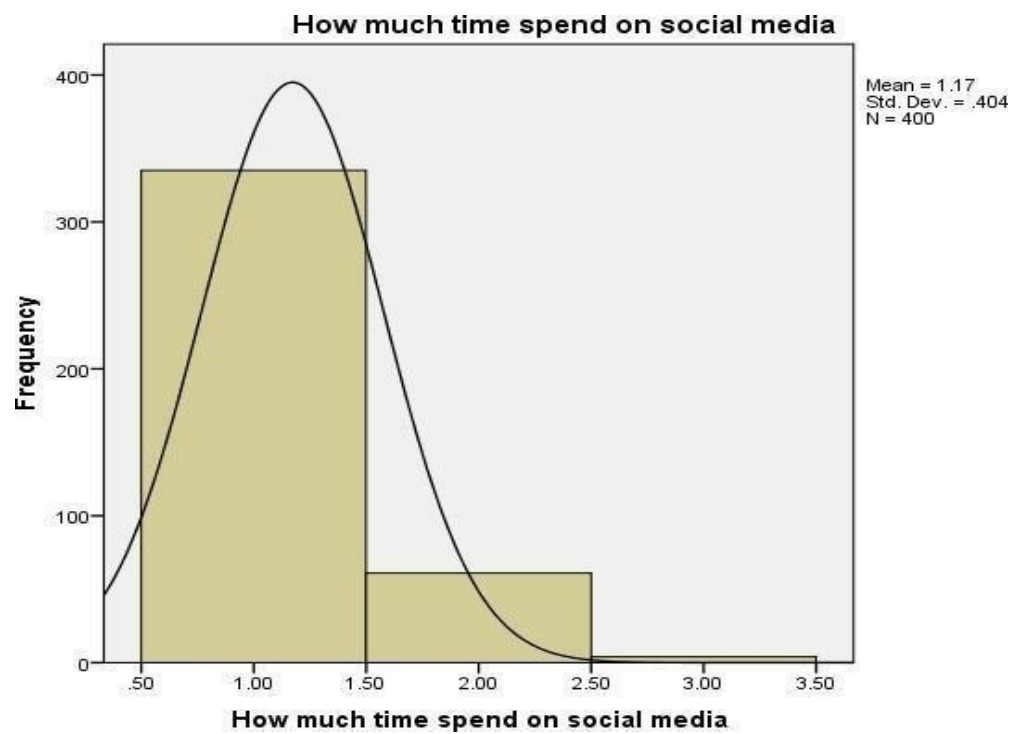
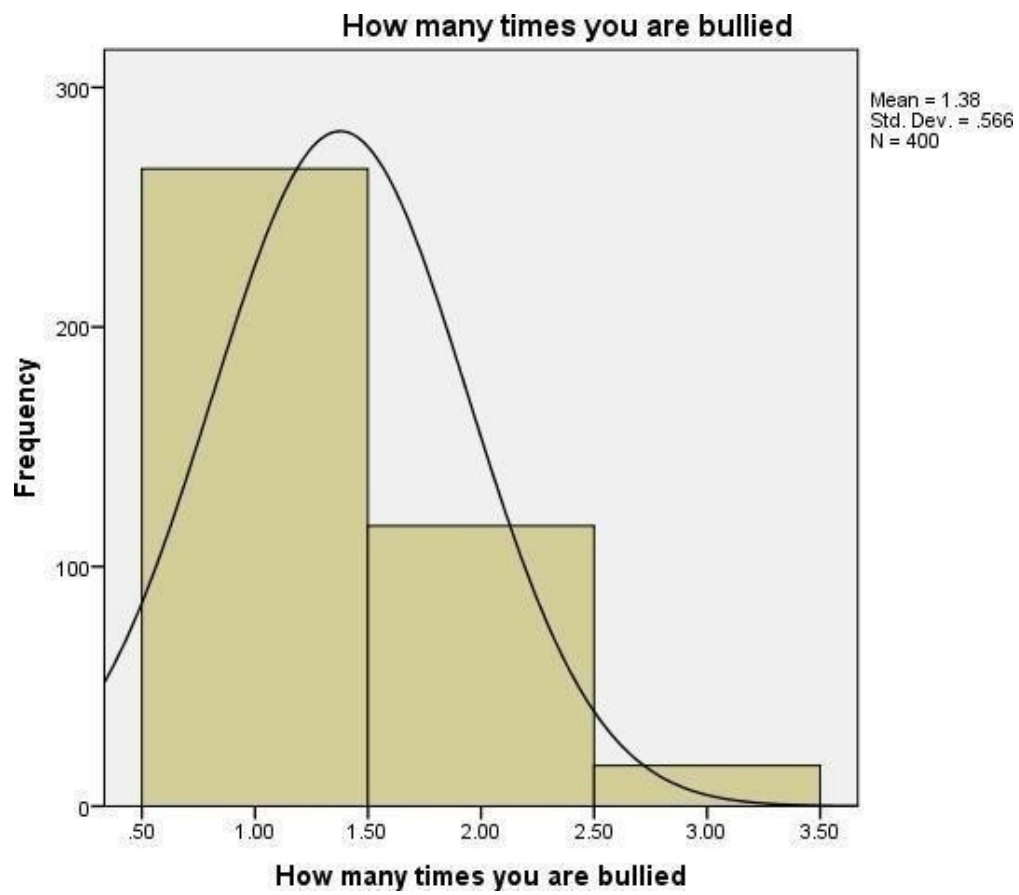


Figure 9



Reliability of scales used in this study:

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

Table 2

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

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 2 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 3**

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 3 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 4

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 4 indicates the correlation among all the variables. Cyberbullying victimization has a negative correlation with self-esteem ($r = -1.02^{**}$). This entail 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.

Chapter 4: Discussion

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. The rate for reported bullying jumped from 27% to 33% in 2019 (Haider, 2019). Majority of the bullying was verbal and sexual bullying. According to Pakistani statistics online abuse are expanded to include those who reported that someone hurt them. (Cooper, 2014). Aim of this study was to find the association between cyberbullying victimization anxiety, depression and self esteem among university students.

Cyberbullying victimization has been linked to negative psychological outcomes such as anxiety, depression, and low self-esteem among university students. The anonymity and accessibility of the internet have made cyberbullying a growing concern in recent years. It is defined as the intentional and repeated use of technology to harass, harm, or embarrass someone (Cooper, 2014) Research has shown that university students who are victims of cyberbullying are more likely to experience symptoms of anxiety and depression. They may feel constantly worried, fearful, or on edge, and experience panic attacks or other physical symptoms such as headaches or stomachaches. Cyberbullying can also contribute to feelings of isolation and social withdrawal, leading to a sense of hopelessness or helplessness.

Low self-esteem is another common consequence of cyberbullying victimization among university students. Cyberbullying can undermine a student's confidence in their abilities, appearance, and social status, leading to feelings of worthlessness or inadequacy. This can impact their academic performance, personal relationships, and overall quality of life. Furthermore, the association between cyberbullying victimization, anxiety, depression, and self-esteem can be reciprocal in nature. Students who are already struggling with anxiety, depression, or low self-esteem may be more vulnerable to cyberbullying, while cyberbullying can exacerbate existing mental health issues.

Convenient sampling strategy was used, sample size was 400 and data was collected through different universities of Islamabad and Rawalpindi. Participants were given informed consent where it was mentioned that confidentiality will be our priority and data will not be shared with anyone, after that demographic sheet was given to participants. This study aimed to explore the correlation between cyberbullying victimization, self-esteem, depression, and anxiety. For data collection Cyberbullying victimization scale, Rosenberg self-esteem scale, Patient health questionnaire and anxiety self-rating scale was used. 215 females and 185 males participated in the study. All of the participants were the victims of cyberbullying, females were more bullied as compared to males, participants who were bullied more were from middle class families. According to this study Cyberbullying 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 increases so does depression. Cyberbullying victimization has a positive relation with Anxiety ($r = .173^{**}$) means when the level of cyberbullying increases anxiety also increases. 40% of women's face cyber harassment through Facebook, Instagram, email and snapchat (Haider 2020) Among the total cases of cyber harassment in Pakistan 215 cases of them are related to online stalking and 268 cases are gender violence cases.

Pakistan is a country where women face severe kind of cyberbullying and cyber harassment. 40% women are online bullied and among them only 29% report cyber harassment. 9 out of 10 women journalists face cyber harassment (Women cyber harassment, 2006). The most widespread form cyberbullying is the disclosure of private information; which included emails, text news and pictures (Lenhart., 2007)

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. Numerous studies have found that cyberbullying victimization is associated with increased levels of anxiety and depression, as well as decreased levels of self-esteem. Students who are repeatedly targeted by cyberbullies may experience feelings of isolation, hopelessness, 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, universities can help students to thrive both academically and personally.

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Appendices A**Informed Consent:**

I am Mahnoor Ahmed, I am doing BS Psychology from Capital University of science and technology Islamabad. This research project is a part of my Bachelor's Degree requirement. The topic of my research study is "Association between Cyberbullying Victimization and mental health among university students". Purpose of this study is to find out the relationship between Cyberbullying Victimization, Anxiety, Depression, and to explore the influence of Cyberbullying Victimization on the Self-Esteem of university students. For this purpose you have to fill out the demographic sheet and questionnaires. The time duration of this research will be of 20-25 minutes. Information in the study and its records will be kept confidential. This will only be used for research and academic purpose. At any stage you can withdraw from the research. Your participation will be highly appreciated. If you have any questions about the study, you can email at mahnoor.ahmed4218@gmail.com.

Appendices B

Demographic Sheet

Name _____

Age: _____

Gender; Male/Female

Religion: Muslim/Christian/Other Nationality:

What is your ethnic background?

Economic Status: _____

Current Semester: _____

Current CGPA: _____

How much time you spend on social media: _____

How many times you are bullied?

Appendices C

Cyber-Victimization Scale

Below, you will see some behaviors that some boys and girls might do to intimidate or really bother you (not as a joke), through the cellphone, Internet, social networks, tablets, or WhatsApp in the past year.

Questions	1: Never	2: Once or twice	3: Few times (between 3 and 5)	4: several times (between 6 and 10)	5. Many times
1. Someone insulted or ridiculed me in social networks or groups like WhatsApp to really hurt me.	Never	Once or twice	Few times	Several times	Many times
2. Someone called my cellphone and hung up to bother or frighten me.	Never	Once or twice	Few times	Several times	Many times
3. Someone used threats to make me do things on the Internet or smartphone that I did not want to do (like recording myself on video, giving money, doing bad things).	Never	Once or twice	Few times	Several times	Many times
4. Someone told my secrets or revealed personal things about me in social networks	Never	Once or	Few times	Several times	Many times

or groups (WhatsApp, Snapchat		twice			
5. To make fun of me, someone made or manipulated videos or photos of me and uploaded or distributed them on social networks or by smartphone.	Never	Once or twice	Few times	Several times	Many times
6. Someone logged into my profile or accounts and I couldnot avoid it.	Never	Once or twice	Few times	Several times	Many times
7. Someone pretended to be me saying or doing bad things on the Internet.	Never	Once or twice	Few times	Several times	Many times
8 Someone purposely created a webpage, a forum, or a group just to make fun of me and criticize me in front Of everyone.	Never	Once or twice	Few times	Several times	Many times
9. Someone put my cellphone number on the Internet and said bad or false things about me so that people would call me and get me into trouble.	Never	Once or twice	Few times	Several times	Many times
10. Someone took my smartphone and used it to send photos, videos, or mean messages to others to get me into trouble with them.	Never	Once or Twice	Few times	Several	Many times
11. Someone criticized me or made fun of comments, photos, or videos I uploaded to social networks or Groups like WhatsApp.	Never	Once or twice	Few times	Several	Many times
12. Someone created a false profile on the Internet with my personal data in order to impersonate me saying or doing bad things	Never	Once or twice	Few times	Several	Many times
13. Someone ignored and did not answer messages or things I shared in groups or social networks, just to make me feel bad.	Never	Once or twice	Few times	Several	Many times
14. Someone provoked me in social networks or groups by insulting or taunting me to make me angry and Cause a big argument.	Never	Once or twice	Few times	Several	Many times
15. Someone eliminated or blocked me from groups to leave me without any friends.	Never	Once or twice	Few times	Several	Many times
16. Someone stole my photos, videos, or private conversations and uploaded them or sent them to others.	Never	Once or twice	Few times	Several	Many times
17. Someone changed my password to social networks so that I could not access them.	Never	Once or twice	Few times	Several	Many times
18. Someone sent me taunting messages to bother and annoy me.	Never	Once or twice	Few times	Several	Many times

ROSENBERG SELF-ESTEEM SCALE

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

Questions:	1.Strongly Disagree	2. Disagree	3.Agree	4.Strongly Agree
1. On the whole, I am satisfied with myself.	Strongly Disagree	Disagree	Agree	Strongly Agree
2. At times I think I am no good at all.	Strongly Disagree	Disagree	Agree	Strongly Agree
3. I feel that I have a number of good qualities.	Strongly Disagree	Disagree	Agree	Strongly Agree
4. I am able to do things as well as most other people.	Strongly Disagree	Disagree	Agree	Strongly Agree
5. I feel I do not have much to be proud of.	Strongly Disagree	Disagree	Agree	Strongly Agree
6. I certainly feel useless at times.	Strongly Disagree	Disagree	Agree	Strong ly Agree

7. I feel that I'm a person of worth, atleast on an equal plane with others.	Strongly Disagree	Disagree	Agree	Strongly Agree
8. I wish I could have more respect for myself.	Strongly Disagree	Disagree	Agree	Strongly Agree
9. All in all, I am inclined to feel that I am a failure.	Strongly Disagree	Disagree	Agree	Strongly Agree
10. I take a positive attitude toward myself.	Strongly Disagree	Disagree	Agree	Strongly Agree

Patient Health Questionnaire

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Please circle your answers.

PHQ-9	Not at all	Several days	More than half day	Nearly everyday
1. Little interest or pleasure in doing things.	Not at all	Several days	More than half day	Nearly everyday
2. Feeling down, depressed, or hopeless.	Not at all	Several days	More than half day	Nearly everyday
3. Trouble falling or staying asleep, or sleeping too much.	Not at all	Several days	More than half day	Nearly everyday
4. Feeling tired or having little energy.	Not at all	Several days	More than half day	Nearly everyday
5. Poor appetite or overeating.	Not at all	Several days	More than half day	Nearly everyday
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down.	Not at all	Several days	More than half day	Nearly everyday
7. Trouble concentrating on things, such as reading the newspaper or watching television.	Not at all	Several days	More than half day	Nearly everyday
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.	Not at all	Several days	More than half day	Nearly everyday
9. Thoughts that you would be better off dead, or of hurting yourself in some way.	Not at all	Several days	More than half day	Nearly everyday
<i>Add the score for each column</i>				

Anxiety Self-Rating Scale:

This scale is designed for your personal use. There are no right or wrong answers. Usually
your first response is the best

	0.never	1.sometimes	2.half time	3.frequently	4. always
1.I feel tense, nervous, restless, or agitated	never	sometimes	half time	frequently	always
2.I feel afraid for no apparent reason	Never	sometimes	half time	frequently	always
3.I worry about bad things that might happen to me or those I care about	Never	Sometimes	Half time	frequently	Always
4. I have difficulty falling asleep, staying asleep or waking up early	Never	Sometimes	Half time	frequently	Always
5. I have difficulty eating too much, too little ordigesting my food	never	sometimes	half time	frequently	always
6. I wish I knew a way to make myself more relaxed	Never	sometimes	half time	frequently	always
7. I have difficulty with my concentration, memory or thinking	Never	sometimes	half time	frequently	always
8. I would say I am anxious much of the time	Never	sometimes	half time	frequently	always
9. From time to time I have experienced a racing heartbeat, cold hands or feet, dry mouth, sweating, tight muscles, difficulty breathing, numbness, frequent urination, or hot/coldflashes	Never	sometimes	half time	frequently	always
10.I wish I could be as relaxed with myself as others seem to be	never	sometimes	half time	frequently	always

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