

EXPLORING THE RELATIONSHIP BETWEEN CYBER-VICTIMIZATION, AGGRESSIVENESS, AND SOCIAL ANXIETY: A CASE STUDY OF SHAH ABDUL LATIF UNIVERSITY KHAIRPUR MIRS, SINDH

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Abstract

Cyberbullying has emerged as one of the most pressing challenges facing university students in the digital era, with consequences that extend well beyond the online space into students' emotional, social, and academic lives. This study examined the relationships among cyberbullying, cyber-victimization, social anxiety, and aggressiveness among students at Shah Abdul Latif University, Khairpur Mirs, Sindh. Using a quantitative, correlational research design, data were collected from 260 university students through a structured questionnaire employing standardized instruments, including the Buss-Perry Aggression Questionnaire and validated cyber-victimization and social anxiety scales. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in Smart-PLS. The measurement model demonstrated strong reliability and validity across all constructs, and the structural model confirmed that cyberbullying exerts a very strong positive effect on cyber-victimization ($\beta = 0.946$, $p < 0.001$), which in turn significantly predicts both social anxiety ($\beta = 0.747$, $p < 0.001$) and aggressiveness ($\beta = 0.561$, $p < 0.001$). The model explained 89.4% of the variance in cyber-victimization, 55.9% of the variance in social anxiety, and 31.5% of the variance in aggressiveness. All three hypotheses were supported. These findings confirm that cyber-victimization functions as a critical link between cyberbullying exposure and students' psychological and behavioral outcomes. The study concludes with practical implications and recommendations for universities, counselors, and policymakers, along with directions for future research.

INTRODUCTION

CHAPTER-1

1.1 Background of the Study

The arousal of technology in the modern age has made cyberbullying an increasingly widespread problem confronted across nearly every digital space. Unlike traditional bullying, cyberbullying occurs through digital environments such as social media, image abuse, audio threats, video harassment, and instant messaging and email that intimidate and pursue victims (Kowalski & Limber, 2013). The anonymity and constant accessibility of the internet allow cyberbullies to reach their victims around the clock, often amplifying the emotional and psychological damage inflicted, and online bullying knows no geographic boundaries, reaching victims even within the sanctuary of their own homes (Kowalski, Giumetti, Schroeder, & Lattanner, 2014).

Cyberbullying is broadly understood as the act of bullying through electronic means such as text messages, social media, online gaming, or email, and it carries measurable negative consequences for the mental health and well-being of those affected. Young people are especially exposed to this risk, given how central working, streaming, scrolling, and gaming on the internet have become to daily life. Globally, out of roughly 8 billion people, approximately 5.35 billion about 66 percent of the world's population now use the internet (Statista, 2024), and Pakistan alone accounts for more than 72 million internet users (APP, 2024). This expanding use of freely accessible social media platforms has raised pressing questions around e-security. Average daily internet use stands at roughly 6.5 hours (Mander & Young, 2017), with users aged 16 to 24 spending markedly more time online than users aged 55 to 64, and research from the Pew Research Center found that 92 percent of teens go online daily, with 56 percent accessing content multiple times a day (Lenhart, 2015).

In Pakistan, the scale of the problem is reflected in the roughly 85,000 complaints of hate speech, harassment, threat messages, and blackmail on virtual platforms recorded by the FIA Cybercrime Wing. The Digital Rights Foundation has

reported that exposure to cyberbullying makes individuals 1.9 times more prone to suicidal thoughts, and the Cyber Wing has taken action against individuals for harassment and the leaking of objectionable data (APP, 2024). Cyberbullying disproportionately affects certain groups, including individuals targeted because of their gender identity or expression, and it manifests in many forms from everyday harassment, threats, and hate speech to doxing and the non-consensual sharing of personal information. Its consequences for mental, social, and physical health can be debilitating, including distress, depression, anxiety, self-injury, and suicidal ideation, with exposure to negative content online intensifying feelings of isolation. Stigmatization and discrimination further create conditions in which cyberbullying can flourish, aided by the anonymity and ubiquity of online platforms.

Within Pakistan, the rapid, largely unregulated expansion of digital media into business, education, and everyday life combined with data privacy loopholes has left individuals vulnerable to threats and misuse for purposes of revenge, defamation, and reputational harm. It is against this backdrop that the present study was designed to examine how cyberbullying and its consequences unfold among university students in Sindh, Pakistan, with specific attention to the psychological and behavioral pathways connecting cyber-victimization to social anxiety and aggressiveness.

1.2 Purpose of the Study

The purpose of this study is to explore how cyber-victimization, aggressiveness, and social anxiety are related among university students. It aims to determine whether students who are cyber-victims develop more anger and social anxiety, and whether these feelings, in turn, are associated with bullying others online. By clarifying how these factors are connected, the study seeks to provide useful information for teachers, counselors, and university staff, with the broader goal of helping institutions build better support systems and more effective prevention strategies for cyberbullying in university settings.

1.3 Significance of the Study

This study is significant because it focuses on how cyber-victimization connects to students' emotional and behavioral responses specifically aggressiveness and social anxiety. In today's digital environment, a large share of university students faces online harassment that can escalate into serious mental health challenges. By examining the relationships among cyber-victimization, aggressiveness, and social anxiety, this research contributes to a clearer understanding of how involvement in cyberbullying, whether as a victim or as a perpetrator, affects students' overall well-being.

The findings are intended to help educators, counselors, and policymakers create safer and more supportive environments for students, and they underscore the importance of developing programs that address not only cyberbullying itself

but the emotional aftermath that follows it. As more of student life moves online, this study highlights the need for stronger anti-cyberbullying policies, targeted awareness campaigns, and expanded mental health support services to protect students in both physical and digital spaces. More broadly, the research contributes to the ongoing effort to reduce cyberbullying and its harmful effects, and it encourages closer collaboration between mental health professionals, educators, and university administrators.

1.4 Research Objectives

- To explore the relationship between cyberbullying and cyber-victimization.
- To estimate the significant relationship between cyber-victimization and aggressiveness.
- To estimate the link between cyber-victimization and social anxiety.

1.5 Research Model

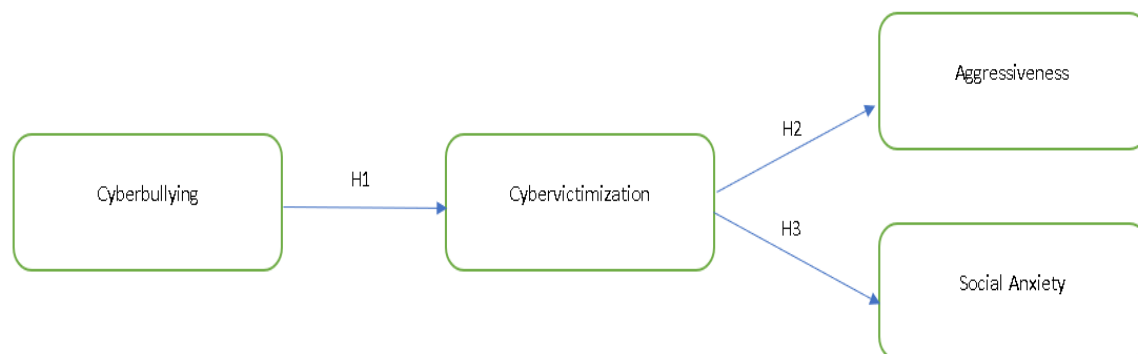


Figure 1.1: Describes the model and relationship among variables

The research model proposes a sequential structure in which cyberbullying acts as the antecedent condition that gives rise to cyber-victimization, which in turn functions as the central mechanism driving two downstream outcomes: social anxiety and aggressiveness. Cyberbullying is positioned as the exogenous construct, cyber-victimization as the key mediating construct, and social anxiety and aggressiveness as

the endogenous outcome constructs. This structure reflects the study's central premise: that the experience of being victimized online, rather than exposure to cyberbullying alone, is what most directly shapes students' emotional and behavioral responses.

1.6 Research Hypotheses

- H1: There is a significant positive relationship between cyberbullying and cyber-victimization.
- H2: Cyber-victimization is positively associated with aggressiveness.
- H3: Cyber-victimization has a significant relationship with social anxiety.

1.7 Research Questions

- R1: Does cyberbullying have any relationship with cyber-victimization?
- R2: Does cyber-victimization have any relationship with aggressiveness?
- R3: Does cyber-victimization have any connection with social anxiety?

1.8 Problem Statement

Cyberbullying has become a growing concern among university students, often leading to serious emotional and behavioral difficulties. Students who are victims of cyberbullying may develop feelings of anger, fear, or social anxiety, which can affect their mental well-being and their relationships with others, and in some cases victims may themselves become bullies, continuing the cycle of harm. Although the negative effects of cyberbullying are widely recognized, there remains limited research on how it relates specifically to aggressiveness and social anxiety within university settings. Understanding how these factors connect is important both for preventing further harm and for building a healthier learning environment. This study addresses that gap by examining the relationships among cyberbullying, cyber-victimization, aggressiveness, and social anxiety among university students, with the aim of helping universities design more effective support systems and prevention programs.

CHAPTER 2

LITERATURE REVIEW

Amid rapid advancements in internet and social media technologies, cyberbullying has drawn growing attention among researchers studying university student populations. It refers to the targeted harm of an individual through electronic

mediums such as social networking, email, and instant messaging (Kowalski et al., 2014). Higher levels of perceived discomfort, anxiety, and disrupted belongingness among cyberbullying victims can interfere with their social and academic experiences. The anonymity afforded by the internet appears to motivate forms of aggression that individuals would be unlikely to display in face-to-face interaction (Smith et al., 2008), and such behavior can erode a victim's sense of self-worth while producing heightened feelings of helplessness and fear.

2.1 Cyberbullying

Cyberbullying is a growing issue among university students, involving intentional harm directed at others through digital platforms such as social media, email, and messaging applications (Kowalski et al., 2014). Victims of cyberbullying frequently report feeling unsafe and isolated, and these experiences can disturb both their academic performance and their broader social functioning. The anonymity provided by online platforms tends to encourage aggressive behaviors that are far less likely to surface in offline, face-to-face settings (Smith et al., 2008).

2.2 Cyber Victimization

Cyber-victimization is defined as being targeted for harmful online experiences. Self-reported psychological distress including negative moods such as sadness, anger, and fear is strongly associated with being a cyber-victim among college students, and these emotional effects can produce serious long-term health outcomes if left unaddressed (Patchin & Hinduja, 2010). Research has also found that students who are victims of cyberbullying frequently go on to become cyberbullying perpetrators themselves, pointing to a cycle of aggravation and retaliation (Wang et al., 2020). Repeated cyber-victimization can further increase susceptibility to other psychological problems, such as stress and social withdrawal, which together compromise a student's overall quality of life.

2.3 Aggressiveness

Aggressive personality refers to an individual's propensity to express anger through hostile thoughts, verbal insult, and, in severe cases, physical aggression (Buss & Perry, 1992). This trait is directly relevant to cyber interaction, where it predicts both cyberbullying perpetration and victimization. Individuals predisposed to aggressive behavior are more likely to engage in negative online conduct, largely because they tend to exhibit lower impulse control and reduced empathy (Dou et al., 2020). Within the context of victimization specifically, being a target of cyberbullying can trigger aggressive responses, creating a cycle of online hostility in which highly aggressive students are more likely both to bully others and to retaliate when bullied themselves (Ak, Özdemir, & Kuzucu, 2015).

2.4 Social Anxiety

Social anxiety is another factor closely associated with cyberbullying and victimization. It refers to excessive fear or discomfort experienced in social settings, which can prompt individuals to avoid such situations altogether (Spence & Rapee, 2016). College students with elevated social anxiety often experience difficulties with online interaction that mirror those they face in person, and cyberbullying can further discourage social activity both online and offline thereby exacerbating existing symptoms (Erdur-Baker, 2010). Victims of cyberbullying commonly report feeling judged, excluded, and humiliated; they may worry excessively and struggle with sleep, patterns that can develop into a form of anxiety marked by social withdrawal. Social anxiety, therefore, appears to function both as a consequence of cyber-victimization and as a vulnerability factor that heightens susceptibility to it. As digital communication platforms have become central to student life, this dynamic has become an increasingly widespread concern, particularly as victims often feel unsafe, anxious, and isolated in ways that disturb both social interaction and academic performance.

2.5 Linking the Constructs

Taken together, the literature reviewed above suggests a coherent pathway linking these four constructs. Cyberbullying behavior directed at a student produces the experience of cyber-victimization (Kowalski et al., 2014; Patchin & Hinduja, 2010). That experience of victimization, marked by psychological distress, then appears to branch into two related but distinct outcomes: heightened social anxiety, as victims withdraw from social interaction out of fear of further judgment or exposure (Spence & Rapee, 2016; Erdur-Baker, 2010), and heightened aggressiveness, as some victims respond to their distress with anger, hostility, or retaliatory behavior (Buss & Perry, 1992; Dou et al., 2020; Wang et al., 2020). This pathway forms the conceptual basis for the research model and hypotheses tested in this study.

2.6 Research Gap

Cyberbullying is increasingly recognized among university students, and many of them go on to experience negative emotional and behavioral consequences as a result. Students who are victimized are likely to experience anger, fear, or social anxiety, and their mental health and interpersonal relationships may be adversely affected; in some cases, victims themselves become perpetrators, perpetuating the cycle of abuse. Despite widespread awareness of cyberbullying's impact, relatively little research has directly examined the relationship between cyber-victimization and both aggressiveness and social anxiety within a university context, and even less has done so using structural equation modeling to test these relationships simultaneously. Understanding how these factors are connected is essential both for preventing further harm and for building a healthier learning environment. This study addresses that gap by examining the relationships among cyberbullying, cyber-victimization, aggressiveness, and social anxiety among students at Shah Abdul Latif University, Khairpur Mirs, with the aim of helping the university and similar institutions develop more effective support structures and prevention measures.

2.7 Chapter Summary

This chapter reviewed the existing literature on cyberbullying, cyber-victimization, aggressiveness, and social anxiety, establishing the conceptual link between exposure to online harassment and its downstream psychological and behavioral consequences. The reviewed studies converge on a common finding: that cyber-victimization is a critical mechanism through which cyberbullying translates into emotional distress and behavioral change among students. The next chapter outlines the methodology used to empirically test these relationships.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Research Design

This study employed a quantitative, correlational research design. The purpose of this design was to examine the relationships between cyberbullying, cyber-victimization, aggressiveness, and social anxiety among university students, without manipulating any of the variables under study. A cross-sectional survey approach was used, with data collected at a single point in time.

3.2 Population and Sample

The target population for this study included students currently enrolled at Shah Abdul Latif University, Khairpur Mirs, Sindh, across its various faculty programs, totaling approximately 8,000 students. A non-probability convenience sampling technique was used to collect data from students who were willing to participate.

3.3 Sample Size

The sample size was determined using Slovin's formula. For a population of 8,000 with a 10 percent margin of error at a 90 percent confidence level, the required sample size was calculated at approximately 251 respondents. In total, more than 300 responses were collected; after discarding unfilled, irrelevant, and dummy responses, 260 valid, usable responses remained and were carried forward for data analysis, exceeding the minimum sample size required.

3.4 Data Collection Method

Data were collected using a structured questionnaire administered to consenting students. The questionnaire was organized into sections measuring cyberbullying behavior, cyber-victimization, aggressiveness (trait anger and aggressive tendencies), and social anxiety. Each section consisted of statements rated on a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.5 Research Instruments

The study used standardized, previously validated instruments for each construct:

- Cyberbullying and Cyber-Victimization Scale, to measure exposure to and experience of online harassment.
- Buss-Perry Aggression Questionnaire (Buss & Perry, 1992), to measure aggressiveness.
- Social Anxiety Scale, to measure fear and discomfort in social situations.

All scales were adapted to suit the university context and, where necessary, translated to ensure clarity for respondents.

3.6 Data Analysis Technique

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in Smart-PLS, alongside descriptive statistics computed in the Statistical Package for the Social Sciences (SPSS). The analysis proceeded in two stages, consistent with standard PLS-SEM practice. The first stage assessed the measurement model, examining indicator loadings, internal consistency reliability (Cronbach's alpha, composite reliability rho_a and rho_c), and convergent validity (Average Variance Extracted). The second stage assessed the structural model, examining path coefficients, coefficients of determination (R^2), and the statistical significance of hypothesized relationships using bootstrapping procedures to generate t-statistics and p-values. Descriptive statistics, including means, frequencies, percentages, and standard deviations, were also computed to characterize the sample.

3.7 Ethical Considerations

All participants were informed about the purpose of the study prior to data collection. Participation was entirely voluntary, and respondents were free to withdraw at any point without consequence. Responses were kept confidential, and no personally identifying information was collected from participants at any stage of the research.

3.8 Limitations of the Study

- The use of convenience, non-probability sampling limits the generalizability of findings beyond the sampled population.
- The cross-sectional design captures relationships at a single point in time and cannot establish causal direction between variables.
- Data were based entirely on self-report measures, which may be subject to social desirability or recall bias.
- The study was confined to a single university, which may limit the applicability of findings to other institutional or regional contexts.

3.9 Structure of the Thesis

This thesis is organized into five chapters. Chapter One introduces the background, purpose, significance, objectives, model, hypotheses, and problem statement of the study. Chapter Two reviews the relevant literature on cyberbullying, cyber-victimization, aggressiveness, and social anxiety, and identifies the research gap addressed by this study. Chapter Three describes the research methodology, including the research design, population and sample, data collection method,

research instruments, and data analysis technique. Chapter Four presents the results of the data analysis, including the measurement model, structural model, and hypothesis testing outcomes. Chapter Five presents the conclusion, discusses the implications of the findings, and offers recommendations for universities, policymakers, and future researchers.

CHAPTER 4

RESULTS AND DATA ANALYSIS

4.1 Introduction

This chapter presents the results of the data analysis conducted to test the study's three hypotheses. Data collected from 260 valid respondents were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in Smart-PLS. Consistent with standard PLS-SEM procedure, the analysis is presented in two stages: assessment of the measurement model (reliability and validity of the constructs) followed by assessment of the structural model (path coefficients, explained variance, and hypothesis testing).

4.2 Measurement Model Assessment

The measurement model was evaluated for internal consistency reliability and convergent validity across the four constructs: Cyberbullying (CB), Cyber-Victimization (CV), Social Anxiety (SA), and Aggressiveness (AG). Table 4.1 presents Cronbach's alpha, composite reliability (ρ_a and ρ_c), and Average Variance Extracted (AVE) for each construct.

1. Table 4.1: Reliability and Convergent Validity of Constructs

Construct	Cronbach's Alpha	Reliability (ρ_a)	Reliability (ρ_c)	AVE
Aggressiveness (AG)	0.765	0.769	0.865	0.681
Cyberbullying (CB)	0.922	0.923	0.951	0.865
Cyber-Victimization (CV)	0.955	0.956	0.971	0.918
Social Anxiety (SA)	0.758	0.792	0.861	0.675

All four constructs exceeded the commonly accepted threshold of 0.70 for Cronbach's alpha and composite reliability (with the exception of Aggressiveness's Cronbach's alpha at 0.765, which remains acceptable), indicating strong internal consistency. Likewise, all AVE values exceeded the minimum threshold of 0.50, confirming adequate convergent validity for each construct. Cyber-Victimization showed the strongest measurement properties of all constructs ($\alpha = 0.955$, AVE = 0.918), reflecting a highly reliable and well-defined measure.

At the item level, indicator loadings were also strong across all constructs. Cyberbullying items loaded between 0.912 and 0.940, indicating that respondents reliably identified and reported cyberbullying behaviors. Cyber-victimization items showed near-perfect loadings between 0.938 and 0.972, confirming the clarity and consistency with

which respondents reported experiences of online victimization. Social Anxiety indicators loaded between 0.717 and 0.876, reflecting solid representation of emotional distress linked to online interactions, while Aggressiveness indicators loaded between 0.793 and 0.857, indicating reliable reporting of aggressive tendencies associated with victimization experiences. Taken together, these results confirm that the measurement model is stable, well-defined, and suitable for structural model testing.

4.3 Structural Model Assessment

Having established the reliability and validity of the measurement model, the structural model was assessed to examine the hypothesized relationships between constructs. Table 4.2 presents the coefficient of determination (R^2) for each endogenous construct.

2. Table 4.2: Coefficient of Determination (R^2)

Endogenous Construct	R-square	R-square Adjusted
Cyber-Victimization	0.894	0.894
Social Anxiety	0.559	0.557
Aggressiveness	0.315	0.312

Cyberbullying alone explained 89.4% of the variance in Cyber-Victimization, indicating an exceptionally strong and near-linear relationship between the two constructs. Cyber-Victimization, in turn, explained 55.9% of the variance in Social Anxiety and 31.5% of the variance in Aggressiveness, both of which represent substantial explanatory power for constructs of this kind in social science research.

4.4 Hypothesis Testing: Direct Effects

Path coefficients were estimated using a bootstrapping procedure to generate t-statistics and p-values for each hypothesized relationship. Table 4.3 presents the direct effects results.

3. Table 4.3: Direct Effects (Path Coefficients)

Path	Original Sample (O)	Sample Mean (M)	Std. Dev. (STDEV)	T-Statistics	P-Values
CB → CV	0.9460	0.9470	0.0140	66.313	0.000
CV → AG	0.5610	0.5600	0.0640	8.736	0.000
CV → SA	0.7470	0.7520	0.0610	12.244	0.000

All three hypothesized direct paths were statistically significant at $p < 0.001$. Cyberbullying strongly predicted Cyber-Victimization ($\beta = 0.946$, $t = 66.313$, $p < 0.001$), providing strong support for H1. Cyber-Victimization was significantly and positively associated with Aggressiveness ($\beta = 0.561$, $t = 8.736$, $p < 0.001$), supporting H2. Cyber-Victimization was also significantly and positively associated with Social Anxiety ($\beta = 0.747$, $t = 12.244$, $p < 0.001$), supporting H3. All three

research hypotheses were therefore supported by the data.

4.5 Indirect Effects

In addition to the direct paths, indirect effects were examined to assess how cyberbullying influences social anxiety and aggressiveness through cyber-victimization. Table 4.4 presents these indirect effects.

4. Table 4.4: Indirect Effects

Path	Original Sample (O)	Sample Mean (M)	Std. Dev. (STDEV)	T-Statistics	P-Values
CB → CV → SA	0.7070	0.7120	0.0580	12.226	0.000
CB → CV → AG	0.5310	0.5310	0.0630	8.369	0.000

Both indirect paths were statistically significant at $p < 0.001$, confirming that cyber-victimization functions as a significant mediating mechanism through which cyberbullying exposure translates into elevated social anxiety ($\beta = 0.707$, $t = 12.226$) and elevated aggressiveness ($\beta = 0.531$, $t = 8.369$)

among students. These results reinforce the central premise of the research model: cyber-victimization is not merely a byproduct of cyberbullying but an active pathway through which its psychological and behavioral consequences unfold.

4.6 PLS Model:

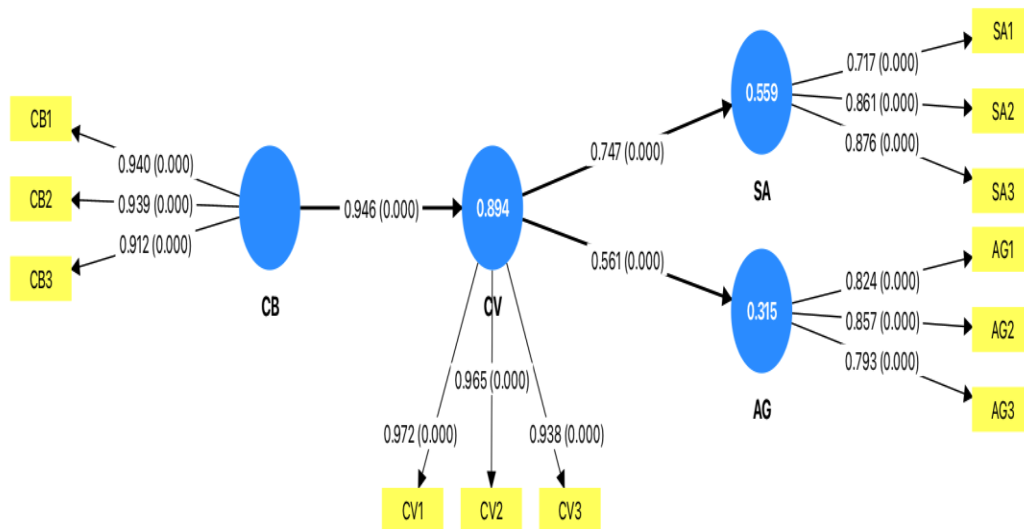


Figure 2.1: The above figure shows the PLS Results of Co-Efficient, (P) Value, R Square, & Relationship among Variables.

4.7: Descriptive Analysis:

To collect primary data for this study, a total of 400 questionnaires were distributed through social media platforms. Of the total responses received, 310 questionnaires were returned. Upon review, 50 responses were excluded due to incomplete, irrelevant or inconsistent information. After this screening process, 260 fully completed and relevant questionnaires were retained for analysis.

4. Summary of Findings

The results of the structural equation model provide strong empirical support for all three hypotheses proposed in this study. Cyberbullying is a very strong predictor of cyber-victimization, and cyber-victimization is, in turn, a significant predictor of both social anxiety and aggressiveness among university students. The measurement model demonstrated excellent reliability and validity throughout, lending confidence to the structural results. Table 4.5 summarizes the hypothesis testing outcomes.

5. Table 4.5: Summary of Hypothesis Testing

Hypothesis	Relationship	Path Coefficient	P-Value	Result
H1	Cyberbullying -> Cyber-Victimization	0.946	0.000	Supported
H2	Cyber-Victimization -> Aggressiveness	0.561	0.000	Supported
H3	Cyber-Victimization -> Social Anxiety	0.747	0.000	Supported

These findings, discussed in greater depth in the following chapter, confirm that cyber-victimization occupies a central position in the psychological experience of students affected by cyberbullying, shaping both their emotional state and their behavioral responses.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusion of the study titled "Exploring the Relationship between Cyber-Victimization, Aggressiveness, and Social Anxiety: A Case Study of Shah Abdul Latif University Khairpur Mirs, Sindh." The chapter summarizes the major findings, discusses the implications of the results, and provides recommendations for educational institutions, policymakers, and future researchers.

5.2 Summary of Findings

The primary objective of this study was to examine the relationships among cyberbullying, cyber-victimization, social anxiety, and aggressiveness among university students. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM).

The findings revealed that cyberbullying has a very strong positive effect on cyber-victimization ($\beta = 0.946, p < 0.001$). This indicates that students who are exposed to cyberbullying behaviors are highly likely to experience cyber-victimization. The model further demonstrated that cyber-victimization significantly predicts social anxiety ($\beta = 0.747, p < 0.001$), suggesting that students who become victims of online harassment are more likely to experience fear, discomfort, and anxiety in social situations.

The results also showed a significant positive relationship between cyber-victimization and aggressiveness ($\beta = 0.561, p < 0.001$). This finding indicates that victimized students may respond to their negative online experiences with anger, hostility, or aggressive behavior. Additionally, the R^2 values showed strong explanatory power of the model, where cyberbullying explained 89.4% of the variance in cyber-victimization, cyber-

victimization explained 55.9% of the variance in social anxiety, and 31.5% of the variance in aggressiveness.

Overall, all proposed hypotheses were supported, confirming the existence of significant relationships among the study variables.

5.3 Discussion of Findings

The findings support the growing body of literature suggesting that cyberbullying is a major predictor of cyber-victimization. The exceptionally strong relationship between cyberbullying and cyber-victimization confirms that harmful online behaviors directly contribute to victim experiences among university students. This finding is consistent with previous studies that identified cyberbullying as one of the most serious challenges affecting students in digital environments.

The significant relationship between cyber-victimization and social anxiety indicates that victims of online harassment often experience psychological distress. Students who are repeatedly targeted online may develop fear of social interaction, feelings of insecurity, and concerns about negative evaluation by others. These findings support earlier studies that reported higher levels of anxiety, depression, and social withdrawal among cyberbullying victims.

Similarly, the positive relationship between cyber-victimization and aggressiveness suggests that victimized individuals may react to their experiences through anger and hostile behavior. Some victims may become aggressive as a coping mechanism, while others may engage in retaliatory behaviors against peers. This finding supports previous research indicating that cyber-victimization can contribute to emotional instability and aggressive responses.

The overall results demonstrate that cyberbullying is not merely an online issue but a significant psychological and behavioral concern that affects students' emotional well-being and social functioning.

5.4 Conclusion

This study concludes that cyberbullying significantly contributes to cyber-victimization among university students, and cyber-victimization

subsequently increases both social anxiety and aggressiveness. The results highlight the serious psychological and behavioral consequences associated with negative online experiences.

The findings emphasize that cyber-victimization is a critical factor influencing students' mental health. Victims are more likely to experience social anxiety, emotional distress, and aggressive tendencies, which may negatively affect their academic performance, interpersonal relationships, and overall well-being. Therefore, addressing cyberbullying and cyber-victimization should be considered a priority for higher educational institutions.

The study contributes to the understanding of cyberbullying dynamics within the context of Pakistani universities, particularly at Shah Abdul Latif University Khairpur Mirs. It provides empirical evidence that can assist educators, counselors, and policymakers in developing effective interventions to promote safer digital environments for students.

5.5 Practical Implications

- Universities should establish clear policies and reporting mechanisms for cyberbullying incidents.
- Student counseling centers should provide psychological support for victims of cyberbullying.
- Awareness campaigns should be conducted to educate students about responsible digital behavior and the consequences of online harassment.
- Workshops and training programs should be organized to improve digital citizenship and online ethics among students.
- Faculty members and university administrators should actively monitor and address cyberbullying-related issues to create a safer learning environment.

5.6 Recommendations

- Universities should implement comprehensive anti-cyberbullying policies and disciplinary measures.
- Mental health support services should be strengthened to assist students experiencing cyber-victimization.

- Educational programs should be introduced to improve awareness regarding cyberbullying, online safety, and emotional well-being.

- Parents, teachers, and university administrators should collaborate in identifying and addressing cyberbullying incidents.

- Social media literacy programs should be promoted to encourage responsible online communication and behavior.

5.7 Recommendations for Future Research

- Conduct similar studies in other universities across Pakistan to improve generalizability.
- Include additional variables such as depression, self-esteem, loneliness, academic performance, and psychological well-being.
- Examine mediating or moderating factors that may influence the relationships among cyberbullying, cyber-victimization, social anxiety, and aggressiveness.
- Utilize longitudinal research designs to examine the long-term effects of cyber-victimization.
- Compare the experiences of students across different demographic groups, including gender, academic level, and socioeconomic background.

5.8 Final Remarks

Cyberbullying has emerged as a significant challenge in the digital era, affecting students' psychological health and behavior. The findings of this study demonstrate that cyber-victimization is strongly influenced by cyberbullying and serves as a significant predictor of social anxiety and aggressiveness. Creating safer online environments, strengthening mental health support systems, and promoting responsible digital behavior are essential steps toward protecting students from the harmful consequences of cyberbullying and fostering healthier educational communities.

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