The Relationship between Cyberbullying and Depression Among College Students

Al-Badayneh DM¹*, Khelifa M² and Aladra I³

¹Department of Security Studies, Graduate College, Police Academy, MOI, Qatar & IKCRS, Jordan

²Department of Social Sciences, Psychology Program, College of Arts & Sciences, Qatar University, Qatar

³Department of Social Work, Faculty of Arts, Jordan University, Jordan

*Corresponding author: Diab Al-Badayneh, Department of Security Studies, Graduate College, Police Academy, MOI, Qatar & IKCRS, Amman, Jordan, Tel: 4125968701; Email: dbadayneh@gmail.com

Abstract

The purpose of the study is to examine the relationship between cyberbullying and depression among college students. Like real life bullying, cyberbullying leaves severe marks on victims' psyche, the most important of which is depression. Therefore, this study examined the effect of cyberbullying on college students' depression. One thousand Jordanian students from Tafila Technical University participated in the study. They represented all 12 Jordanian governorates and had a balanced representation of males (45.4%) and females (54.6%), and science (49.6%) and non-sciences college students (50.4%). Findings showed that cyberbullying exposed 26% of the students to violence and 9% percent of participants knew cyberbullying victims on and off-campus. A little over a third of the sample (37%) reported depression, 33% had a death wish, while a higher percentage (45%) had no interest in life. Females reported a slightly higher tendency towards depression than males of (19% vs. 18% respectively), but showed higher levels of no interest in life (25% vs. 20%), and death wish (18% vs. 14.8%). Further, cyberbullying correlated significantly with college students' depression (.010) and low self-control (LSC) (.023) but most importantly, cyberbullying had a significant effect on depression (F = 9.538, α = 0.002). There was a significant effect of cyberbullying, LSC, fear, anger, gender, college type, and father's work status on depression (F = 901.401, α = 0.000). Their combined effect explained 86% of the variance of the depression variable.

Keywords: Cyberbullying; Cyberbullying Victimization; Cyberbullying Perpetration; Depression; Low Self-Control; Gender; College Students; Jordan

Introduction

The internet has transformed daily life and behavior in the 21st century imposing a digital culture for everyone, especially children and youth. One of the many associated dangers of the internet is cyberbullying, which extends beyond physical settings and involves sending intimidating messages online, allowing perpetrators to escalate abuse and traumatize victims [1]. Due to the double-edged nature of modern technology, cyberbullying (cyberbullying victimization and cyberbullying perpetration) has become a thorny societal problem. The internet connects youths thus the number of students using the internet at home or in school has rapidly increased. However, negative social

repercussions such as cyberstalking and sexual predation have overshadowed the benefits of the internet [2-4].

Cyberbullying can worsen depression and post-traumatic stress disorder symptoms in young inpatients, especially those with a history of abuse. It's more pernicious than other forms due to its viral and persistent nature. Bullied individuals scored higher on PTSD, depression, anger, and dissociation scales. Psychologists should regularly inquire about past abuse and bullying [5]. Cyberbullying, a form of bullying, is a growing concern in cyberspace. It involves repeatedly harassing someone through social media platforms, causing psychological harm like depression. Victims often feel isolated and helpless, leading to feelings of depression and anxiety. Research suggests that cyberbullying has a more significant impact on mental health than traditional bullying [1]. Cyberbullying, often unreported, can lead to depression in teens due to the constant harassment and negative experiences on social media. This can manifest as sadness, irritability, anger, withdrawal, sleep issues, and risky behaviors. Parents should be aware of the consequences and help their children cope [6-8]. Cyberbullying, a growing concern, is linked to higher levels of depression, suicidal thoughts, emotional distress, and delinquency among young victims, potentially resembling high school bullying [9]. Cyberbullying significantly impacts students, causing reduced concentration, school avoidance, increased absences, isolation, and negative school climate perceptions, particularly affecting girls and persisting throughout childhood and adulthood [10].

The anonymity and wider audience of cyberbullies may contribute to feelings of power and encourage harsher bullying. Cyberbullying often leads to more detrimental outcomes for victims, particularly depression symptoms. Studies show higher rates of stress, depression, and anxiety among students victims of cyberbullying, with some suggesting lower rates than traditional bullies. The mental health effects of cyberbullying may differ from traditional bullying [11].

As a growing public health concern, cyberbullying is affecting middle and high school students with prevalence ranging from 20% to 40%. Victims report higher levels of depression, emotional distress, and delinquency. Perpetrators of cyberbullying cause adverse health effects to victims, including increased depression, anxiety, substance use, and comorbidities. College students who frequently use digital technology face the consequences, with depression and alcohol use being commonly reported health issues. Understanding risk factors is crucial for preventing morbidity and [12,13].

According to a study in Qatar, the majority of students at Qatar University have encountered cyberbullying, and about half of them have reported experiencing symptoms of depression. Cyberbullying and cybervictimization are prevalent behaviors, with significant associations between gender and depression, suggesting a link between these issues [14].

However, research on the consequences of cyberbullying among college students is sparse but growing. Hence, this study aims to examine the effects of cyberbullying victimization and depression in both male and female college students, with females expected to be more likely to be victims and more susceptible to depression as suggested by the literature.

Methodology

Sample

A study of 1000 Tafila Technical University students revealed that 45.4% were males and 54.6% were females. Students came from all 12 Jordanian governorates, and the sample was almost equally distributed between science (49.6%) and non-science colleges (50.4%). Cyberbullying exposed 26% of the students to violence. A little under tenth of the sample (9%) knew victims on campus and outside.

37% of the sample reported depression, 45% had no interest in life, 33% had a death wish. Females reported a slightly higher percentage of depression than males (19% vs. 18%), no interest in life (25% vs. 20%), and death wish (18% vs. 14.8%).

Research Tool

Measurement
Cyberbullying scale: We meticulously measured cyberbullying, a complex construct, using a comprehensive set of 34 items derived from a literature review Al-Badayneh, et al. [10,15-17] and tested them using factor analysis. We rotated these items to ensure accuracy. We composed 10 items for the perpetration factor, 14 items for the self- and vicious cyberbullying factors, and another 14 items for the cyberbullying victimization factor. The reliability coefficient measured by Cronbach's alpha was 0.99, and the validity with the LSC scale was 0.28 α=0.00.

The Depression Scale: We measured the depression scale by asking the students in the last six months if they felt depressed or lost hope in life; if they had no interest in life, wished to die. Responses were 1—yes, 0—no. The scale's Cronbach's α was 0.59, and the validity (correlation between the LSC scale and depression was 0.21 α = 0.00.

Procedure

Our research team, guided by strict ethical standards, distributed the survey to all participants. They took the time to explain the study's purpose, the confidentiality measures in place, and the instructions for completing the survey. The researchers diligently obtained informed consent from all students and emphasized the voluntary nature of their participation, ensuring they could withdraw from the study whenever they wished.

Findings

Approximately 26% of the sample experienced cyberbullying, while 9% were acquainted with victims both on campus and beyond. Around 26% participated in violence. A total of 37% of the sample reported depression, 45% had no interest in life, and 33% had a death wish.

Cyberbullying Effects on Depression

Table 1 shows a significant overall effect of cyberbullying on depression ($F = 9.538$, $\alpha = 0.002$).

Model	Sum of Squares	df	Mean Squares	F	Sig
regression	73.536	1	73.536	9.54	0
residual	7694.668	998	7.71		
Total	7768.204	999			

Table 1: ANOVA Regression Analysis of Independent Variables on Depression.
Dependent Variable: Depression.
**Predictors:** (Constant), cyberbullying and Low self-control.

Table 2 shows the unique contribution of cyberbullying on depression (9%).

Model	Unstandardized Coefficients		Standardized Coefficient s	t	sig
	B	Standard. Error	Beta		
(Constant)	6.432	0.127		50.812	0
Cyberbullying	0.008	0.003	0.097	3.088	0.002

Table 2: Regression Coefficients.

Relationship between Cyberbullying and Depression

Figure 1 shows a significant relationship between cyberbullying, and depression.

Figure 1: The Relationship between Cyberbullying and Depression.
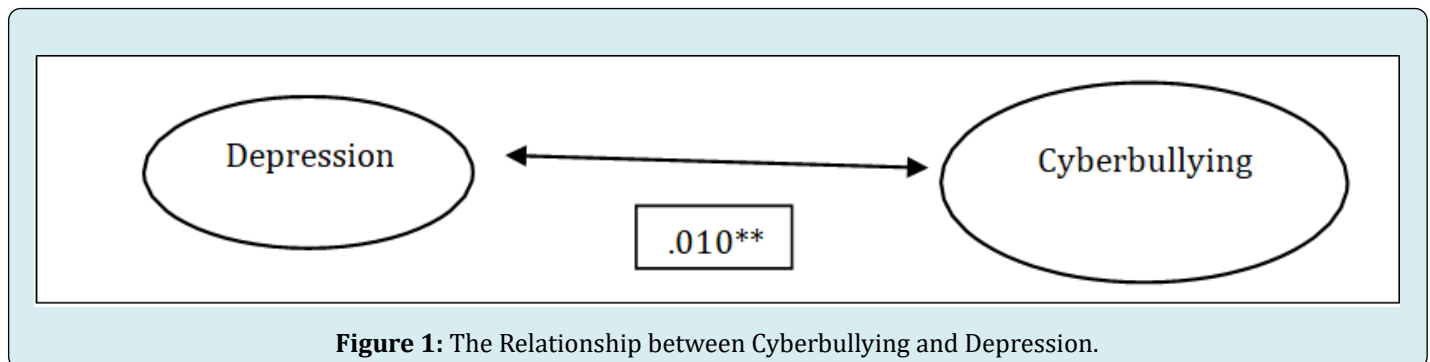
Determinants of Depression

A regression analysis of cyberbullying, low self-control, anger, fear, gender, type of college, father's work (0=no work, 1= work), on depression accounted for 86% of the variance of depression. Table 1 shows the overall significant effect of all predictors together (Table 3). Table 4 shows no significant differences attributed to gender or type of college.

Model	Sum of Squares	df	Mean Squares	F	Sig
regression	6712.841	7	958.977	901.4	0
residual	1055.363	992	1.064		
Total	7768.204	999			

Table 3: ANOVA Regression Analysis of Independent Variables on Depression.
Dependent Variable: Depression
Predictors: (Constant), cyberbullying, low self-control, anger, fear, gender, college, and father's work.

Model	Unstandardized Coefficients		Standardiz ed Coefficient s	t	sig
	B	Standard Error.	Beta		
(Constant)	0.63	0.161		3.912	0
Gender	0.062	0.069	0.011	0.901	0.368
College	-0.158	0.069	-0.028	-2.301	0.022
Father's Work	0.194	0.073	0.031	2.65	0.008
Anger	1.083	0.027	0.532	40.285	0
Fear	1.046	0.023	0.57	44.632	0
Low self-control	0.033	0.005	0.082	6.498	0
Cyberbullying	-0.002	0.001	-0.027	-2.204	0.028

Table 4: Regression Coefficients.

Gender and College Differences

	Model	Sum of Squares	df	Mean Squares	F	Sig
Gender	Between groups	0.06	1	0.06	0.008	0.93
	Within Groups	7768.144	998	7.784		
	Total	7768.204	999			
College	Between groups	2.471	1	2.471	0.318	0.573
	Within Groups	7765.733	998	7.781		
	Total	7768.24	999			

Table 5: Mean Differences in Depression Attributed to Gender and Type of College.
Mean: Males=6.7 Sd =2.8 Female=6.7 Sd =2. Sciences=6.8 Sd= 2.9 Others= 6.7 Sd=2.7

Discussion

This study examines the effect of cyberbullying on college students' feelings of depression. Just over a quarter of the sample (26%) experienced cyberbullying and actively participated in the violence. Less than ten percent (9%) had personal knowledge of victims, both on and off campus. More than a third (37%) of the sample reported depression, a little less than half (45%) expressed no interest in life, around a third (33%) expressed a death wish. Females reported a slightly higher percentage of depression than males (19% vs. 18% respectively), no interest in life (25% vs. 20%), and death wish (18% vs. 14.8%). The results indicate that cyberbullying (victimization and perpetration) is a significant positive predictor of feelings of depression. This is consistent with findings from previous studies. Results show that females are more prone to depression than males, regardless of cyberbullying victimization [7,9,18-24]. Evidence from the literature suggests that males are more involved in cyberbullying than females and are higher in cyberbullying perpetration, while females are higher in cyberbullying victimization [3]. Cyberbullying is linked to proactive aggression, violence justification, exposure to violence, and less perceived social support [8,25,26]. Other reasons include envy, prejudice, disability, religion, gender, shame, pride, guilt, and anger [27,28]. There are additional

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reasons for cyberbullying. These particular reasons can explain the use of cyberbullying by those who would not confront their victim face-to-face: anonymity, approval, boredom, feeling better, instigating jealousy, no perceived consequences, projection of feelings, protection, reinvention of self, and revenge [3]. Moreover, we can attribute gender differences in cyberbullying to differences in socialization patterns. Compared to males, females in Jordan face social constraints that prevent them from engaging in cyberbullying. Cyberbullying consequently victimizes females. Previous studies suggest that cyberbullying in college students increases the risk of mental health issues like depression, suicidal ideation, self-harm, and suicide attempts due to factors like a lack of peer support, emotional intelligence, and substance use [29]. In addition, cyberbullying victimization significantly predicts depression among college students [30,31]. However, there was no significant difference in depression attributed to either gender or college in this study.

Cyberbullying, as shown in this study, is common among adolescents who socialize online. There are six roles identified in previous research models: entitlement bullies, targets of entitlement bullies, retaliators, victims of retaliators, bystanders, and bystanders who are part of the problem or part of the solution. These roles involve individuals who believe they are superior, target others, retaliate, support the victim, and seek to stop bullying. Outward expressions of hate can trigger cyberbullying; a form of bullying that involves a wide range of potential participants. This phenomenon, which requires no personal traits, can be more prevalent online than in traditional forms of bullying. This has led to an increase in the number of offenders and victims, as well as a negative impact on the perpetrators' reputations. Cyberbullying is particularly insidious due to its anonymity and the ability to reach a large number of victims without a significant threat of punishment. The anonymity of the internet allows anyone to say and do things they would not do in person. Impulsivity among adolescents can also influence cyberbullying, as they act hastily to retaliate or avenge a minor issue. Students often think they are anonymous through electronic communication, but this is really not the case [3,32].

Youths with low self-control are more susceptible to physical, psychological, and cyberbullying. Cyberbullying causes severe consequences, including pain, depression, and criminal behavior in young adults [33-35]. Increased levels of strain were associated with higher engagement in cyberbullying behavior [36]. Victimization, including cyberbullying, increases youth's imprudent risk of social and health-deteriorating behaviors, particularly binge drinking behaviors. Gender heterogeneity is evident, with females experiencing cyberbullying victimization and males increasing cyberbullying perpetration [18,37]. A meta-analysis study examines the effectiveness of parent-related programs in reducing cyberbullying perpetration and victimization among adolescents. The review found that existing programs have small effect sizes on cyberbullying perpetration and victimization. Shorter durations of programs were more effective than longer ones. Interventions with a theoretical foundation were more effective. The review suggests that improving anti-cyberbullying interventions by enabling parent involvement, increasing parenting skills, parent-child interactions, and communication is crucial. Future research is needed to identify key moderators or develop school- family patterns to reduce cyberbullying [38].

Implications for Prevention and Intervention

The study suggests addressing cyberbullying and feelings of depression [1,32]. Educators, researchers, and policymakers must address this by teaching adolescents about the issue and identifying at- risk individuals for cyberbullying [39,40]. This study established that cyberbullying is a significant problem affecting university students in Jordan, causing them to feel a range of psychological harm. This study aimed to identify the critical ramifications of cyberbullying among university students and its risk factors for students' health, like depression, in order to guide the development of effective interventions aimed at reducing cyberbullying among university students [21]. Low self-control, opportunity, and gender were reported to significantly influence online harassment, with males experiencing more harassment than females. The interaction between low self-control and opportunity did not significantly affect harassment. The low self-control theory should be applied to gender in investigations and policy recommendations [41]. Cyberbullying, a growing issue among teenagers, can have significant psychological impacts as shown in the current study. Prevention requires guidance from parents, schools, and healthcare providers, addressing risk and protective factors [42].

Conclusion

The study found that cyberbullying significantly correlates with increased depression among students, highlighting the need for evidence-based interventions, protective factors, and physical activity. Girls reported more cyberbullying, while males were more likely to encounter physical threats. Future research should explore modality, visual elements, and app usage.

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References

1. Peprah P, Oduro MS, Okwei R, Asiamah-Asare BY (2023) Cyberbullying victimization and suicidal ideation among in-school adolescents in three countries: implications for prevention and intervention. BMC Psychiatry 23: 944.

2. Luo Q, Wu N, Huang L (2023) Cybervictimization and cyberbullying among college students: The chain mediating effects of stress and rumination. Front Psychol 14: 1067165.

3. Notar CE, Padgett S, Roden J (2013) Cyberbullying: A Review of the Literature. Universal Journal of Educational Research 1(1): 1-9.

4. Mishna F, Cook C, Gadalla T, Daciuk J, Solomon S (2010) Cyber Bullying Behaviors Among Middle and High School Students. American Journal of Orthopsychiatry 80(3): 362-374.

5. Harvey P (2020) Cyberbullying. Journal of Clinical Psychiatry.

6. AK S, Özdemir Y, Kuzucu Y (2015) Cybervictimization and cyberbullying: the mediating role of anger, don't anger me!. Computers in Human Behavior 49: 437-443.

7. Raskin S (2024) Could cyberbullying be the cause of depression in your teen?. Orlando Health.

8. Mishna F, Khoury-Kassabri M, Schwan K, Wiener J, Craig W, et al. (2016) The contribution of social support to children and adolescents self-perception: The mediating role of bullying victimization. Children and Youth Services Review 63: 120-127.

9. Almenayes J (2017) The Relationship between Cyberbullying Victimization and Depression: The Moderating Effects of Gender and Age. Social Networking 6(3): 215-223.

10. Cassidy W, Faucher C, Jackson M (2013) Cyberbullying among youth: A comprehensive review of current international research and its implications and application to policy and practice. School Psychology International 34(6): 1-38.

11. Greenwood M (2024) The Impact of Cyberbullying on Mental Health. News Medical Life Sciences.

12. Kraft EM, Wang J (2011) An exploratory study of the cyberbullying and cyberstalking experiences and factors related to the victimization of students at a public liberal arts college. International Journal of Technoethics 1(4): 74-91.

13. Selkie EM, Kota R, Chan YF, Megano M (2015) Cyberbullying, depression, and problem alcohol use in female college students: a multisite study. Cyberpsychol Behav Soc Netw 18(2): 79-86.

14. Al-Ahmed A, Makki H, Al-Rajeh S, Alsayed D (2020) The Relationship between Cyberbullying, Cyber-victimization, and Depression among Qatar University Students.

15. Al-badayneh D, Al-Assasfeh RA, Ekici S (2023) Developing A Robust Legal System Through Scale for Youth Extremism Across Arab Cultures. International Journal of Criminal Justice Science 18(1): 29-51.

16. Gaete J, Valenzuela D, Godoy MI, Rojas-Barahona CA, Salmivalli C, et al. (2021) Validation of the Revised Olweus Bully/Victim Questionnaire (OBVQ-R) Among Adolescents in Chile. Front Psychol 12: 578661.

17. Ruangnapakul N, Salam YD, Shawkat AR (2019) A Systematic Analysis of Cyber Bullying in Southeast Asia Countries. International Journal of Innovative Technology and Exploring Engineering 8(S8): 104-111.

18. Dou G, Xiang Y, Sun X, Chen L (2020) Link Between Cyberbullying Victimization and Perpetration Among Undergraduates: Mediating Effects of Trait Anger and Moral Disengagement. Psychology Research and Behavior Management 13: 1269-1276.

19. Ybarra ML, Mitchell KJ, Wolak J, Finkelhor D (2006) Examining Characteristics and Associated Distress Related to Internet Harassment: Findings from the Second Youth Internet Safety Survey. Pediatrics 118(4): e1169-e1177.

20. Kim S, Kimber M, Boyle MH, Georgiades KS (2018) Sex Differences in the Association Between Cyberbullying Victimization and Mental Health, Substance Use, and Suicidal Ideation in Adolescents. Can J Psychiatry 64(2): 126-135.

21. Abd Ajis M, Kasim N, Ghazali F (2022) Gender Differences in Cyberbullying Victimization. Selangor Humaniora Review 6(1): 51-60.

22. Bonanno RA, Hymel S (2013) Cyber Bullying and Internalizing Difficulties: Above and Beyond the Impact of Traditional Forms of Bullying. Journal of Youth and Adolescence 42: 685-697.

23. Li Q (2007) New Bottle But Old Wine: A Research of Cyber-Bullying in Schools. Computers in Human Behavior 23(4): 1777-1791.

24. Didden R, Scholte RHJ, Korzilius H, De Moor JMH, Vermeulen A, et al. (2009) Cyberbullying among Students with Intellectual and Developmental Disability in Special Education Settings. Developmental Neurorehabilitation 12(3): 146-151.

25. Calvete E, Orue I, Estévez A, Villardón L, Padilla P (2010) Cyberbullying in adolescents: Modalities and aggressors' profile. Computers in Human Behavior 26(5): 1128-1135.

26. Chen D, Xu B, Chen J (2023) The association between domestic violence exposure and cyberbullying behavior among secondary school students. Front Psychiatry 14: 1302477.

27. Hoff DL, Mitchell SN (2009) Cyberbullying: Causes, effects, and remedies. Journal of Educational Administration 47(5): 652-665.

28. Jones LM, Mitchell KJ, Finkelhor D (2010) Online harassment in context: Trends from three youth internet safety surveys (2000, 2005, 2010). Psychology of Violence 3(1): 53-69.

29. Maurya C, Muhammad T, Dhillon P, Maurya P (2022) The effects of cyberbullying victimization on depression and suicidal ideation among adolescents and young adults: a three-year cohort study from India. BMC Psychiatry 22(1): 599.

30. Hu Y, Bai Y, Pan Y, Li S (2021) Cyberbullying victimization and depression among adolescents: A meta-analysis. Psychiatry Res 305: 114198.

31. Brandau M, Evanson T (2018) Adolescent Victims Emerging From Cyberbullying. Qualitative Health Research 28(10): 1584-1594.

32. Cowie H (2013) Cyberbullying and its impact on young people's emotional health and well-being. The Psychiatrist 37(5): 167-170.

33. Mcgrath H, Lianos H (2017) Can the general theory of crime and general strain theory explain cyberbullying perpetration? Crime & Delinquency 64(5): 674-700.

34. Sela-Shayovitz R, Levy M, Hasson J (2024) The Role of Self-Control in Cyberbullying Bystander Behavior. Social Sciences. 13(1): 64.

35. Moon B, Fifta L, Alarid (2014) School Bullying, Low Self-Control, and Opportunity. Journal of Interpersonal Violence 30(5): 839-856.

36. Kail R (2016) What Influences Cyberbullying: A Test Of General Strain Theory. THESIS Presented to the Faculty of The University of Texas at Dallas in Partial Fulfillment of the Requirements for the Degree of Master of Science In Criminology, The University of Texas at Dallas.

37. Nikolaou D (2021) Bullying, Cyberbullying, and Youth Health Behaviors. Kyklos 75: 75-105.

38. Wang, L, Jiang S (2022) Effectiveness of Parent-Related Interventions on Cyberbullying among Adolescents: A Systematic Review and Meta- Analysis. Trauma, Violence, & Abuse 24(5): 3678-3696.

39. Willard N (2005) Educator's guide to cyberbullying addressing the harm caused by online social cruelty. Scientific Research.

40. Singh M (2021) Cyberbullying Behaviour in Relation to Depression and Suicide among Adolescents. Academia Letters 1437: 1-6.

41. Baek H, Losavio MM, Higgins GE (2016) The Impact of Low Self-Control on Online Harassment: Interaction with Opportunity. The Journal of Digital Forensics, Security and Law 11(3): 26-42.

42. Sandeep G, Venkatesh RV (2023) Cyberbullying: A Narrative Review. Journal of Mental Health and Human Behaviour 28(1): 17-26.

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