

Cyberbullying, Psychological Well-being and Social Support among University Students: A Quantitative Sociological Analysis

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Abstract

Cyberbullying has become an important social problem in educational environments because digital communication enables harassment, humiliation and social exclusion to extend beyond physical settings. The present study examined the relationship between cyberbullying, psychological well-being and perceived social support among students. A quantitative cross-sectional survey design was used and data were collected from 99 respondents. Traditional bullying, cyberbullying, psychological well-being, social support and academic outcomes were measured using structured and previously validated instruments. Data were analyzed using descriptive statistics, Pearson correlation, principal component analysis, hierarchical regression, mediation, moderation and moderated mediation. The results showed a significant positive relationship between cyberbullying and psychological well-being ($r = .234, p < .05$) and a strong positive association between cyberbullying and social support ($r = .805, p < .01$). Psychological well-being was very strongly related to academic outcomes ($r = .943, p < .01$), whereas social support was moderately associated with academic outcomes ($r = .418, p < .01$). Mediation analysis revealed that cyberbullying significantly predicted psychological well-being ($B = .325, p = .020$), while psychological well-being significantly predicted academic outcomes ($B = .934, p < .001$), but the indirect effect was not statistically significant. Moderation analysis further showed that social support did not significantly moderate the relationship between cyberbullying and academic outcomes ($B = -.006, p = .920$). The results suggest that cyberbullying is closely connected with students' psychological and social experiences, although the associations are complex.

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Introduction

The development of digital communication has changed the ways of student interaction for the worse in some cases, creating new platforms for aggression and victimization. Cyberbullying is a form of bullying victimization using various forms of electronic communication. Unlike standard bullying, such harassment may be ongoing and may accompany the victim outside of school in the form of social media, messaging apps, email, and other methods of communication. Moreover, the dynamic and permanent nature of electronic communication, along with its ability to reach a large audience, increases the risks of victimization for students (Kowalski et al., 2014; Smith et al., 2008).

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Bullying has traditionally been viewed as a face-to-face social process involving physical, verbal, and relational aggression. According to Olweus (1993), such interactions are characterized by an intention to harm, repetition of actions, and an element of power differential. Relational bullying also includes social exclusion, manipulation, and damage to relationships (Crick & Grotpeter, 1995). The advent of technology has added a new dimension to such interactions that victimize individuals through online platforms. Cyberbullying is now often conflated with such victimization and relational aggression.

The adverse psychological impact of bullying is of particular concern from a sociological perspective because social aspects and structures affect individuals' well-being. Previous studies established that cyberbullying was often linked to negative psychological outcomes such as stress, depression, and anxiety (Bauman et al., 2013; Perren et al., 2010). The Transactional model of stress and coping perspective also holds that individuals process stressful events and adjust according to their appraisal of situations and their available resources (Lazarus & Folkman, 1984).

Social support is another critical factor affecting students' adjustment and coping. Students who have greater access to family, friends, and significant others can obtain resources and seek help when they encounter bullying (Cohen & Wills, 1985). However, the role of social support in coping may depend on the nature of student victimization and the specific services provided (Davidson & Demaray, 2007).

The present article focuses on social and psychological aspects of cyberbullying. Rather than looking at academic achievement as an outcome variable for cyberbullying, this article views psychological well-being and assesses whether social support acts as a moderator in the relationship between cyberbullying and students' academic performance.

Objectives

- To establish the relationship between cyberbullying and mental well-being.
- To assess the links between cyberbullying and perceived social support.
- To determine the connection between mental well-being and academic achievement.
- To evaluate if social support moderates the connection between cyberbullying and academic achievement.
- To analyze the mediating role of mental well-being in the relationship between cyberbullying and academic achievement.

Review of Literature

Cyberbullying has become an integral part of modern social interactions among students. Kowalski et al. (2014) underline the unique attributes of cyberbullying, such as potential anonymity and repeated exposure to victimization. Smith et al. (2008) similarly note that cyberbullying is differentiated from bullying due to the fact that technological means of communication contribute to victims being more exposed and vulnerable.

A person's psychological wellbeing seems to be the key resource for analyzing the impact of bullying. According to the stress-process model proposed by Lazarus and Folkman (1984), negative social events can undermine a person's wellbeing if the event is evaluated as stressful and there are no adequate coping mechanisms. The research literature has consistently underlined the impact of bullying victimization on psychological wellbeing. Namely, Perren et al. (2010) note the association between cyber victimization experiences and depressive symptoms, and Bauman et al. (2013) underline the role of bullying and cyberbullying in psychological difficulties.

The impact of psychological wellbeing on students' functioning in the educational environment seems to be particularly significant. According to the self-determination theory, an individual's need for autonomy, feeling of competence, and social belonging predict their motivation and behaviors (Deci & Ryan, 2000). Therefore, social victimization experiences undermine these aspects of students' functioning.

As the literature review has demonstrated, students' social wellbeing is the key predictor of their psychological wellbeing. At the same time, there is a significant theoretical and empirical gap in the research literature regarding the role of social support. Namely, the stress-buffering hypothesis proposed by Cohen et al. (1985) posits that social support can moderate the impact of negative events on an individual. Davidson and Demaray (2007) have shown that the impact of victimization on students' psychological wellbeing is associated with the source of perceived social support. That is, the same victimization experience is processed differently by different individuals, and the degree of distress is dependent on one's social networks and community. Therefore, the analysis of the role of social support in the context of cyberbullying victimization experiences is a significant research question.

Methodology

The study adopted a quantitative cross-sectional survey design. The thesis implemented a multi-stage stratified sampling procedure with the aim of recruiting respondents from diverse categories, including different study programs, student levels, and institutions. Consequently, the study had ninety-nine (99) respondents. The study's analytical framework was intended to quantify bullying and explore associations between bullying and students' social support, psychological well-being, and achievement. Traditional bullying was assessed using the Bullying Prevalence questionnaire with items adapted from the Olweus Bully/Victim Questionnaire. It included three sub-scales: physical, verbal, and social relational bullying. Cyberbullying was measured using the Cyberbullying Victimization Scale.

Depression, anxiety, and stress were evaluated using the Depression Anxiety Stress Scales-21 (DASS-21). It comprised a depression scale, an anxiety scale, and a stress scale. The research assessed social support using the Multidimensional Scale of Perceived Social Support (MSPSS). It specified three support domains: family, friends, and significant others. The study applied Pearson correlation, principal component analysis, hierarchical regression, mediation analysis, moderation analysis, and moderated mediation analysis. The thesis also applied PROCESS procedures to explore indirect effects.

Results

Table 1: Correlation Matrix among major variables of study

Variables	1	2	3	4	5
1. Traditional Bullying	1	.668**	.250*	.516**	.165
2. Cyberbullying	.668**	1	.234*	.805**	.193
3. Psychological Well-being	.250*	.234*	1	.377**	.943**
4. Social Support	.516**	.805**	.377**	1	.418**
5. Academic Outcomes	.165	.193	.943**	.418**	1

* $p < .05$, ** $p < .01$, two-tailed.

The correlation matrix below shows different relationships between the variables. Cyberbullying correlated significantly with psychological wellbeing ($r = .234$, $p < .05$) and had a very strong correlation with social support ($r = .805$, $p < .01$). Traditional bullying had a strong

correlation with cyberbullying ($r=.668$, $p<.01$). Psychological wellbeing was extremely strongly correlated with the academic outcome ($r=.943$, $p<.01$). Social support had a moderate positive correlation with the academic outcome ($r=.418$, $p<.01$). There was no significant correlation between traditional bullying ($r=.165$) and academic outcome and between cyberbullying ($r=.193$) and academic outcome.

Table 2: Principal Component Analysis of Major Variables

Variable	Component 1	Component 2
Traditional Bullying	.685	-.464
Cyberbullying	.786	-.526
Psychological Well-being	.730	.653
Social Support	.847	-.276
Academic Outcomes	.710	.688

Component 1 = 56.825%; Component 2 = 29.373%; Cumulative = 86.199%.

The principal component analysis was reported to have extracted two components with eigenvalues greater than one which jointly explained 86.199% of the variance. In particular, social support had the highest loading on Component 1 (.847), followed by cyberbullying (.786), psychological well-being (.730), academic outcomes (.710) and traditional bullying (.685). Academic outcomes (.688) and psychological well-being (.653) both demonstrated strong positive loadings on Component 2.

Table 3: Mediation of Cyberbullying and Academic Outcomes through Psychological Well-being

Path	B	SE	t	p	95% CI
Cyberbullying → Psychological Well-being	.325	.137	2.374	.020	[.053, .598]
Psychological Well-being → Academic Outcomes	.934	.034	27.403	<.001	[.866, 1.002]
Direct effect: Cyberbullying → Academic Outcomes	-.040	.047	-.850	.398	[-.134, .054]
Indirect effect	.304	.158	—	—	[-.005, .622]

Bootstrap = 5,000.

The analysis of mediation revealed that cyberbullying significantly predicted the level of psychological wellbeing ($B = .325$, $p = .020$). In turn, psychological wellbeing was found to be a highly significant predictor of academic outcome ($B = .934$, $p < .001$). Nevertheless, the direct effect of cyberbullying on students' academic achievement was non-significant ($B = -.040$, $p = .398$). Most importantly, the indirect effect of cyberbullying through psychological wellbeing was not significant at $p < .05$ level as zero was included in the bootstrapped CI ($B = .304$, 95% CI [-.005, .622]).

Moderating Role of Social Support

Table 4: Moderation of Cyberbullying–Academic Outcomes Relationship by Social Support

Predictor	B	SE	t	p	95% CI
Constant	6.066	17.851	.340	.735	[-29.373, 41.504]
Cyberbullying	-.458	1.014	-.451	.653	[-2.470, 1.556]
Social Support	1.219	1.075	1.134	.260	[-.915, 3.352]
Cyberbullying × Social Support	-.006	.058	-.100	.920	[-.121, .110]

$R = .483$; $R^2 = .233$; $F(3,95) = 9.637$, $p < .001$.

The moderation model explained 23.3% of variance in academic results. Still, there were no significant predictors for academic results in the moderation model, as both cyberbullying and social support were not significant individually. The most critical point, however, is that the interaction between cyberbullying and social support was found to be statistically insignificant ($B = -.006$, $p = .920$). As such, the study failed to provide evidence that social support could significantly change the effect of cyberbullying on students' academic performance.

Discussion

The findings highlight the complex interplay between cyberbullying, social support, psychological well-being, and academic outcomes among students. The moderate but significant association between cyberbullying and psychological well-being ($r = .234$) supports existing literature on the potential psychological impact of online victimization (Perren et al., 2010; Bauman et al., 2013). When viewed through the lens of the stress and coping framework, cyberbullying may act as a persistent stressor requiring individuals to engage their coping resources (Lazarus & Folkman, 1984). Cyberbullying experiences can consume time, energy, and emotional resources in efforts to address the situation.

One of the most striking findings was the strong relationship between cyberbullying and social support ($r = .805$). This suggests that students reporting cyberbullying experiences also perceive high levels of social support. Rather than viewing social support as a panacea against cyberbullying, the finding highlights the importance of understanding social support as a process. Students may actively seek out and utilize different forms of social support (Davidson & Demaray, 2007).

The very strong relationship between psychological well-being and academic outcomes ($r = .943$) is also a noteworthy finding. This aligns with the perspective that students' psychological functioning is deeply intertwined with their academic experiences. Self-Determination Theory posits that psychological needs for autonomy, competence, and connectedness are fundamental to thriving in academic contexts (Deci & Ryan, 2000). In other words, psychological well-being underpins academic success.

However, the mediation analysis requires careful interpretation. While cyberbullying was a significant predictor of psychological well-being and psychological well-being strongly predicted academic outcomes, the indirect effect was not statistically significant because the bootstrap confidence interval included zero. This illustrates the danger of inferring mediation based solely on significant individual paths (Preacher & Hayes, 2008).

The non-significant moderation effect of social support is equally compelling. The interaction between cyberbullying and social support was very small and non-significant ($B = -.006$, $p = .920$), so the stress-buffering hypothesis was not supported for this study. Cohen, and Wills (1985) proposed that social support can diminish the negative effects of stressful events, but this might depend on factors such as the nature of the stressor and the type of social support available to the individual.

Another notable finding was the strong relationship between traditional bullying and cyberbullying ($r = .668$, $p < .01$). This suggests that these two forms of victimization are not mutually exclusive. In other words, students who experience challenges in one context (e.g., school yard) are likely to encounter similar issues in another (online environment).

Conclusion

The present study aimed to demonstrate that cyberbullying is a multidimensional social phenomenon involving not only behavioral but also psychological and sociological aspects. The study revealed that among 99 participants, cyberbullying was related to their psychological well-being and strongly connected with the perceived level of social support. The analysis also found a very strong association between psychological well-being and academic performance. However, the mediation analysis failed to confirm a significant indirect effect of cyberbullying through the psychological well-being level on students' academic outcomes.

Also, there was no significant moderation effect of social support on the relationship between cyberbullying and academic performance. Nonetheless, the study found that social support is very closely related to cyberbullying, meaning that social aspects are essential for students' experiences of online violence. Therefore, the study suggests that educational facilities should consider developing comprehensive strategies for preventing and reducing cyberbullying among students based on psychological and social aspects, such as awareness programs, confidential reporting, counseling services, peer support, and other measures.

Recommendations

- Universities should create confidential reporting channels for cyberbullying.
- Student counseling centers should consider cyberbullying-related psychological difficulties in their programs.
- Awareness campaigns should focus on both traditional bullying and cyberbullying since they are highly overlapping.
- Schools should foster peer-based support networks but also recognize that support may not buffer all outcomes of cyberbullying.
- Researchers should conduct future studies examining different types of social support (e.g., family, friends, teachers, and institutional) independently.
- Longitudinal studies with large samples are needed to determine the causal relationships between cyberbullying, psychological well-being, social support, and academic achievement.

Limitations

The cross-sectional design of the study does not allow establishing causal relationships. Moreover, the sample size of the study was relatively small ($n=99$). It might have affected the statistical power of the study, especially for complex models such as moderation and moderated mediation. Besides, the study relied on self-report data, which is subject to common method bias. Moreover, the study revealed an unexpectedly strong correlation ($r=.943$) between two variables, namely, levels of psychological wellbeing and academic performance, which questions their theoretical distinction and should be considered in future studies.

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