

Problematic Online Gaming and Cyberbullying Perpetration Among Young Adults: A Quantitative Study

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Abstract

There is substantial literature regarding problematic online gaming and cyberbullying perpetration among young adults. However, such studies are rare in Pakistan. Therefore, the objective of this study is to examine the effects of problematic online gaming on cyberbullying perpetration among young adults in Pakistan. The study adopted a cross-sectional correlational design and employed a purposive sampling technique to collect data from 250 individuals aged 18 to 30, all of whom had been using online gaming for at least the past year. Two scales were utilized, including the Gaming Addiction Scale for Adolescents (shorter version) and the perpetration subscale of the Cyberbullying Perpetration and Victimization Questionnaire (used to measure cyberbullying perpetration only). The correlational results indicate that problematic online gaming has a positive and significant association with cyberbullying perpetration. Moreover, problematic online gaming significantly and positively predicts cyberbullying perpetration among young adults in Pakistan. The study provides comprehensive implications for the well-being of young adults.

Keywords: Problematic Online Gaming, Cyberbullying Perpetration, Young Adults.

Introduction

Problematic online gaming can be defined as the excessive and pathological use of games, which leads to a loss of control over gameplay. This behaviour can have a detrimental effect on psychological well-being, cause clinical distress in daily functioning, and impair social, occupational, practical, and academic life (Bashir et al., 2024; Griffiths et al., 2015; Wong et al., 2020). Studies have shown an association between problematic online gaming and cyberbullying among young adults across the globe (Richard et al., 2021; Yang, 2012).

Cyberbullying is defined as the use of electronic communication to bully a person, typically by sending intimidating or threatening messages (Kowalski, 2018; Slonje et al., 2018). Cyberbullying perpetration refers to the act of engaging in online behaviour that intentionally harms or harasses others, as described in the Barlett and Gentile Cyberbullying Model (BGM)

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(Barlett et al., 2021; Barlett et al., 2017). A previous study found that increased online gaming, exposure to media violence, internet risk behaviors, and prior bullying experiences predicted the emergence of cyberbullying among Taiwanese youth (Chang et al., 2015). Another study also found that cyberbullying victimization is both directly and indirectly linked to cyberbullying perpetration and problematic social media use (Hussain et al., 2023).

Parental neglect has also been linked to adolescent cyberbullying perpetration, with internet gaming disorder and cyberbullying victimization acting as mediating factors. These findings emphasize the importance of addressing gaming addiction to reduce cyberbullying behaviors (Gan et al., 2023). A previous study revealed that addiction to Ludo Star is associated with aggressive behaviour among young adults through online social connectedness (Bashir et al., 2024). Another study found that PUBG, a violent game, is similarly linked to aggression through online social interaction among Pakistani youth (Kausar et al., 2024).

A recent study found that problematic PUBG playing leads to aggressive behavior among young adults via the mediating role of expressive suppression (Shahid & Yaseen, 2025). Another recent study also depicted a significant and positive effect of Clash of Clans addiction on aggressive behaviour among young Pakistani adults (Shahid et al., 2025). Excessive online activity has also been linked to aggression among young adults (Shahid et al., 2024).

According to the General Aggression Model, individual and situational factors contribute to aggression. Recent and previous studies congruent with this model depict that problematic online gaming behavior is associated with aggressive behaviour (Allen et al., 2018; Batool et al., 2025; Bushman & Anderson, 2002; Teng et al., 2014). A previous study conducted among 175 Greek university students found that cyberbullying and victimization were linked to problematic internet use, online disinhibiting, neuroticism, loneliness, and low agreeableness, supporting the General Aggression Model's view of personal and contextual factors influencing aggressive online behaviour (Kokkinos & Antoniadou, 2019).

Although substantial literature depicts the association between problematic online gaming and cyberbullying perpetration, these studies are very limited in the cultural context of Pakistan, despite this issue being commonly observed in daily life. Therefore, the objective of this study is to find the association between problematic online gaming and cyberbullying perpetration among young adults to fill the gap and provide useful implications for societal well-being.

Hypotheses

1. There is likely to be a positive and significant association between problematic online gaming and cyberbullying perpetration among young adults.
2. There is likely to be a positive and significant effect of problematic online gaming on cyberbullying perpetration among young adults.

Methodology

The study employed a cross-sectional correlational design and purposive sampling to examine problematic online gaming, and cyberbullying perpetration among 250 Pakistani university and college students aged 18 to 30, of both genders. Participants had been playing online games for at least one year. Measures included the Gaming Addiction Scale for Adolescents shorter version, a 7-item Likert scale of GASA of 21 items, ranging from “never” (1) to “very often” (5), with a reported Cronbach's alpha of 0.94 (Lemmens et al., 2009; Liu et al., 2020); in this study, reliability was 0.79. Cyberbullying perpetration was assessed using the perpetration subscale of the Cyberbullying Perpetration and Victimization Questionnaire (Lee et al., 2017), with 20 items and an internal consistency of 0.93. The reliability in this study was 0.70.

All APA 7 ethical protocols were strictly followed. This included obtaining permission from scale authors, securing institutional approval, and ensuring informed consent. Participants were assured of confidentiality, anonymity, and their right to withdraw at any time without

consequences. No physical or psychological harm occurred. Data were reported accurately, and entered to SPSS 27 version for analysis purpose.

Results

Table 1: Characteristics of Participants (N=250)

Characteristics	<i>f</i>	%	<i>M</i>	<i>SD</i>
Age			22.24	2.14
Gender				
Men	180	72		
Women	70	28		
Education				
Intermediate	168	67		
Bachelor	62	25		
Master	20	8		

Note: *f*=Frequency, %= Percentage, *M*= Mean, *SD*= Standard Deviation.

The table above shows that 180 participants (72%) are men, while 70 participants (28%) are women. The mean age of the participants is 22.24 years, with a standard deviation of 2.14. A total of 168 participants (67%) have an intermediate level of education. Participants enrolled in a bachelor's program make up 62 (25%) of the sample, followed by 20 participants (8%) pursuing a master's degree.

Table 2: Relationship between Problematic Online Gaming and Cyberbullying Perpetration (N=250)

Variables	1	2
1. Problematic Online Gaming		.40**
2. Cyberbullying Perpetration		

Note: ** $p < .01$

The above table depicts significant positive relationship between problematic online gaming and cyberbullying perpetration.

Table 3: Regression Analysis (N=250)

Variables	<i>B</i>	<i>SE</i>	β	<i>R</i>	<i>R</i> ²	<i>P</i>	<i>F</i>	95% CI	
								LL	UL
				.40	.16		47.94		
Constant	43.72	2.13				<.001		39.51	47.93
POG	.76	.11	.40			<.001		.55	.98

Note: POG= Problematic Online Gaming, *** $P < .001$

The above table depicts problematic online gaming predict cyberbullying perpetration significantly and positively making 16% variance in the cyberbullying score.

Discussion

There is substantial literature regarding the association between cyberbullying and problematic online gaming. However, in Pakistan, such studies are rare despite young adults' growing inclination toward pathological gaming and involvement in cyberbullying. Therefore, the aim of this study is to examine the association between problematic online gaming and

cyberbullying perpetration, in order to fill the literature gap and offer practical implications to enhance the well-being of Pakistani youth.

The first hypothesis of the study was supported through correlational analysis, which showed a significant and positive association between problematic online gaming and cyberbullying perpetration among young adults. This result aligns with a previous study conducted in China on 463 adolescents, which revealed a positive association between internet gaming disorder and cyberbullying perpetration (Xiang et al., 2022). Another study in Tunisia also found that problematic internet use scores were significantly related to cyberbullying perpetration scores among students (Fekih-Romdhane et al., 2023). Possible explanations for this significant association include the anonymity provided by online platforms, participants' personality traits, the violent nature of some games, biological factors—such as the predominance of male participants and the link between testosterone and aggression—and cultural factors, including the lack of awareness in Pakistan regarding the risks of problematic gaming and cyberbullying. The second hypothesis was also confirmed. Regression analysis showed that problematic online gaming significantly and positively predicts cyberbullying perpetration among young adults. This finding is consistent with a recent study conducted on 257 individuals aged 18 to 25, which revealed that problematic social media use significantly and positively affects cyberbullying perpetration. Moreover, empathy was found to moderate this effect among Pakistani young adults (Sadiq et al., 2025). Another study conducted in Taiwan on 2,315 high school students found that problematic online gaming, exposure to media violence, and pathological internet use predicted cyberbullying behaviors (Chang et al., 2015). Similar to the earlier discussion, these results may be due to factors such as anonymity, game content, personality traits, biological differences, and limited public awareness in the Pakistani context.

Conclusion

This study, which used a correlational research design and purposive sampling technique, concluded that among Pakistani college and university students aged 18 to 30, problematic online gaming is positively and significantly associated with cyberbullying perpetration. Furthermore, regression analysis confirmed that problematic online gaming significantly predicts cyberbullying. Thus, the study contributes meaningfully to existing literature and offers implications for improving the psychological well-being of young adults in Pakistan.

Implications

The first implication of the study is the need for increased awareness by mental health professionals. In Pakistan, there is a clear lack of knowledge regarding the psychological impact of problematic online gaming and cyberbullying. Workshops, seminars, and awareness campaigns should be implemented in educational institutions to reduce pathological gaming and improve academic performance. Parents and young adults must be informed of the potential negative consequences, and youth should be encouraged to seek psychological help if they find themselves excessively involved in gaming. Government intervention is also crucial. Cyberbullying perpetrators should be held accountable, and victims' rights must be protected. The Federal Investigation Agency's Cybercrime Wing should educate students on cyberbullying laws and their consequences. Lastly, promoting physical activities and healthy social interaction is essential to support the overall well-being of young adults.

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