

Gaming Addiction, Negative Emotions, and Aggression in Young Adults

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Abstract

In the contemporary era of technology, millions of students worldwide are exposed to violent video games. The present study examined the effect of gaming addiction on aggression among young adults, with gaming addiction operationalized as PUBG addiction. A total of 250 PUBG addicts, including an equal number of men ($n = 125$) and women ($n = 125$) aged between 18 and 25 years ($M = 21$, $SD = 2$), participated in the study. The instruments used included the Gaming Addiction Scale for Adolescents to assess PUBG addiction, the Buss and Perry Aggression Questionnaire to measure aggression, and the Profile of Mood States Questionnaire to assess negative emotions. The findings revealed a significant positive relationship between PUBG addiction and aggression, whereas the relationship between PUBG addiction and negative emotions was nonsignificant. Additionally, negative emotions were found to be significantly associated with aggression. Men reported significantly higher levels of PUBG addiction than women, while gender differences in negative emotions and aggression were nonsignificant. The study concluded with comprehensive implications for young adults in Pakistan, emphasizing the need for awareness and preventive measures to mitigate the adverse psychological effects of excessive gaming behaviour.

Keywords: *PUBG addiction, profile of mood state, negative emotions, aggression, young adults.*

Introduction and Literature Review

Gaming addiction means compulsive or excessive use of technological games that is responsible for clinical distress in the life of addicts (Jeong & Kim, 2011). There are some alternative names used for gaming addiction i.e., "Internet gaming disorder", "Pathological video gaming", "problematic gaming", and "internet gaming addiction" (Lemmen et al., 2009; Van Rooji et al., 2011). In the 1990s online video games began for the first time and gets popularity immediately as these games were widely accessible (Kulsoom et al., 2022). In

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recent years the number of video game players has significantly increased, the video games allow different players to play together to accomplish common and complex goals. That is the reason young adults spend several hours playing these games (Singh, 2019). Online video games are associated with significant distress in the individual's routine (World Health Organization, 1992).

Player Unknown's Battle Grounds shortly known as PUBG is a multiplier live video game that first appeared in 2017. This game was inspired by "Battle Royal" which was a Japanese movie. This game is played by multiple players from different IP addresses, the game started when the players jump from the Aeroplan into the island, the goal of the players is to gather the weapons initially and not be get killed or harmed by the enemy while killing the enemy with different techniques and weapons. The game is played on the open ground surrounded by water, as time increases the red circle zoon of the game begins to reduce. If any player of the group survived till the end and kills all the enemies, his level increases, and he or she feels happy and excited (Razzaq, 2021).

Gaming addiction is operationalized as PUBG addiction which is the first and the most important variable in this study. PUBG is a highly addictive video game that has ruined the life of many individuals as it leads to suicidal ideation and attempts (Mamun et al., 2022). It also contributes to causing clinically significant distress in occupational, academic, practical, and social areas of functioning (Sunil et al., 2021). Negative emotions can be described as miserable and sad feelings or being upset about an event or occasion. There are many types of negative emotions Tension or anxiety Anger or Hostility, Fatigue or Inertia, Depression or dejection, and Confusion or Bewilderment. Anxiety is an emotional state associated with tense feelings, negative thoughts, and physical changes like palpitation (Renna, 2021).

Aggression can be defined as the behavior which is anticipated to harm the other person who is avoiding this harm (Davis et al., 2018). There are four types of aggression: Physical Aggression, Verbal aggression, Anger, and Hostility (Buss & Perry, 1992). There is ample literature that states that violent video game addiction has badly affected the lives of many young adults as it disrupts the mood due to its violent nature and causes aggression consequently.

One of the most addictive video games is PUBG. PUBG is a highly addictive game because it is easy to learn but hard to master, offers excitement for new levels, earning outcomes, gradual improvement, and clear progression (D'Souza et al., 2019). A recent study in Pakistan on young students depicts that PUBG addiction is significantly and positively correlated with aggression (Shahid & Yaseen, 2025). People with video game addiction exhibit negative emotions such as anger and anxiety, which are associated with aggression (Shahid et al., 2024; Shahid et al., 2025).

The current study aims to address the gap in previous research, as no researcher has previously worked on the topic "Gaming Addiction, Negative Emotions, and Aggression in Young Adults." Gaming addiction is operationalized as PUBG addiction in this study. This study will be beneficial because it will make us aware of the manipulative variable—PUBG addiction—that causes aggression in young adults, so that we can develop intervention strategies to decrease aggression and effectively deal with this variable.

The goal is to decrease the violence that is caused by violent video games as much as possible through different intervention techniques and strategies. The core purpose of this

research is to spread awareness in society, especially among young adults regarding the hazardous effects of the violent video game PUBG. The aim of this study is to find out the relationship between PUBG addiction, negative emotions, and aggression in young adults.

Hypotheses of Study

The hypotheses of the research are as follows:

1. There is likely to be a relationship among PUBG addiction, negative emotions, and aggression in young adults.
2. Men will score higher than women on PUBG addiction and aggression, whereas women will score higher than men on negative emotions.

Materials and Methods

Research Design

The present study was based on a correlational research design to examine the relationship between PUBG addiction, negative emotions, and aggression.

Sample Characteristics and Sampling Technique

The sample consisted of 250 school, college, and university students who play PUBG, recruited from various private and government institutions in Pakistan. Data were collected using a purposive sampling technique. Both genders, i.e., male and female participants, were included equally. Participants ranged in age from 18 to 25 years. Only students from schools, colleges, and universities were included, while individuals who had not played PUBG in the past six months were excluded.

Measures

Gaming Addiction Scale for Adolescents (GASA)

The Gaming Addiction Scale for Adolescents was developed by Lemmen, et al. (2009). It is a 29-item Likert scale with responses ranging from never (1) to very often (5). The Cronbach's alpha reliability for this scale was reported as 0.94.

Abbreviated Profile of Mood States-Revised Version (POMS-R)

The Abbreviated Profile of Mood States (Revised Version) was developed by Grove and Prapavessis (1992). It consists of 40 items that measure fatigue, anger, vigor, tension, esteem, confusion, and depression. Items 5, 12, 19, 25, 31, 40, 7, 17, 32, 36, and 38 are reverse-scored. The scale uses a four-point Likert response format ranging from not at all (1) to extremely (4). The Cronbach's alpha reliability for this scale was 0.80.

Buss-Perry Aggression Questionnaire (BPAQ)

The Buss-Perry Aggression Questionnaire was developed by Buss and Perry (1992). The scale consists of 29 items rated on a five-point Likert scale. The Cronbach's alpha reliability for the scale was 0.91.

Procedure and Ethical Considerations

The study adhered to the ethical guidelines of the APA (7th edition) throughout its procedures. The topic was approved by the internal review board, and the study commenced in October 2021 and concluded in July 2022. Permission for data collection was obtained from the Head of the Department. The authors of the measurement instruments were contacted via email for permission, and upon receiving approval, the data collection process began. Participants first signed an informed consent form before being provided with the demographic sheet and study instruments. The consent form clearly stated that participation was voluntary and that respondents could withdraw from the study at any time without facing any negative

consequences. Once collected, the data were entered and analyzed using IBM SPSS (Version 22).

Statistical Analysis

The study examined the predictive effects of shyness and inferiority feelings and the role of gender and education on phubbing behavior. Shyness and inferiority feelings were predictors of phubbing. Communication disorders and phone obsession were two factors of phubbing. Data normality was measured via skewness and kurtosis tests in SPSS version 29. The structural regression model was tested in MPLUS software. Gender and educational differences were tested using *t*-tests with a 0.05 significance level.

Results

Table 1

Sociodemographic Characteristics of Participants (N= 250)

Sample Characteristics	<i>F</i>	%	<i>M</i>	<i>SD</i>
PUBG Player	250	100		
Playing PUBG for the last six months	250	100		
Age			21	2
Gender				
Men	125	50		
Women	125	50		
Educational Level				
Bachelor	173	69.2		
Master	77	30.8		

Note. *f*=frequency, %=Percentage, *M*=Mean, *SD*=Standard deviation

Table 1 shows that all 250 participants in the study had been playing *PUBG* for the past six months. The sample included an equal number of men and women ($n = 125$ each). The participants' mean age was 21 years ($SD = 2$), indicating that most were young adults. Regarding education, the majority of participants were bachelor's students (69.2%), while 30.8% were enrolled in master's programs.

Table 2

Correlation among Study Variables (N=250).

Variables	1	2	3
1. PUBG Addiction	-	.08	.23**
2. Negative Emotions			.23**
3. Aggression			-

Note. ** $p < .01$

The table shows the associations between the study variables. PUBG addiction is significantly and positively related to aggression; however, PUBG addiction is positively but not significantly related to negative emotions. In contrast, the relationship between negative emotions and aggression is significant.

Table 3*Independent-Samples t-Test for Gender Differences Across Study Variables (N=250)*

Variables	Men(n=125)		Women(n=125)		t(248)	p	Cohen's d
	M	SD	M	SD			
PA	69.13	5.96	67.55	6.70	2.38	<.05	.24
NE	34.10	11.45	34.58	10.54	-.35	.72	.04
Aggression	77.58	11.97	75.55	11.68	1.35	.17	.17

Note. * $p < .05$. ** $p < .01$, M=mean, SD=Standard Deviation, PGA=PUBG addiction, NE=Negative Emotions

There is a significant gender difference in PUBG addiction; however, no significant gender differences are observed in negative emotions or aggression. Men scored higher on average in PUBG game addiction and aggression, indicating that men are more addicted to the PUBG game and are more aggressive than women.

Discussion

The aim of the study was to examine the relationship between PUBG addiction, negative emotions, and aggression among young adults. The first hypothesis of the study was supported by the Pearson product-moment correlation analysis, which indicated a significant positive relationship between PUBG addiction and aggression but not with negative emotions. This finding is consistent with previous research suggesting that PUBG addiction is strongly associated with triggering aggressive behavior, as three individuals from Lahore, Pakistan, reportedly committed suicide due to excessive gaming (Mamun et al., 2022).

Exposure to violent video game content, whether through watching or playing, can increase aggressive tendencies (Griffith, 1999). The results of this study are also consistent with a recent study conducted in Pakistan, which found a significant relationship between "Clash of Clans" addiction and aggression among young adults (Shahid et al., 2025). Furthermore, another indigenous Pakistani study aligns with our findings, demonstrating that online game addiction among young adults, particularly students, significantly correlates with aggression (Shahid et al., 2024).

A possible explanation for the non-significant association between PUBG addiction and negative emotions could be that participants may have used gaming as a coping mechanism to regulate or suppress negative emotions rather than expressing them through aggression.

The Pearson product-moment correlation also revealed a significant association between negative emotions and aggression. However, this finding contradicts the results of a study by Sukhodolsky and Ruchkin (2004), which reported a significant association between negative emotions and aggression.

The second hypothesis, regarding gender differences among the study variables, was partially supported. The independent sample *t*-test revealed a significant positive difference between men and women, indicating that men scored significantly higher on PUBG addiction. However, there was no significant mean difference in negative emotions and aggression, although men scored higher on aggression and women scored slightly higher on negative emotions, but not significantly. A recent study on gender differences in gaming addiction found that among young adults, men exhibit significantly higher levels of gaming addiction than women, particularly among students (Khan & Ibrar, 2024). Our findings are also consistent

with Pugalendhi and Janet (2019), who reported that PUBG is predominantly played by boys rather than girls.

This result may be due to the higher exposure of men to competitive and violent gaming environments, which reinforce aggressive behaviors and gaming engagement. Additionally, societal norms often encourage men to express dominance and competitiveness, contributing to their higher aggression and gaming addiction levels compared to women. In the cultural context of Pakistan, women are often considered inferior, which could explain their slightly higher, though not significant, scores on negative emotions compared to men. A previous study also found that women scored higher on depression, whereas men scored higher on aggression among young adults in Pakistan (Shahid et al., 2024).

Conclusion of the Study

Young adults often engage in the violent video game PUBG for entertainment; however, beyond the excitement, it can negatively affect mental well-being, particularly by increasing aggression when players become addicted. The goal of the study was to examine the relationship among PUBG addiction, negative emotions, and aggression. The Pearson product-moment correlation revealed that PUBG addiction had a significant relationship with aggression but a non-significant relationship with negative emotions. Furthermore, the independent sample *t*-test indicated that men scored significantly higher on PUBG addiction, while the scores for negative emotions and aggression remained non-significant between men and women.

Limitations and Suggestions of the Study

The first limitation of the study is that the data were collected from a relatively small sample ($N = 250$). If data had been collected from a larger population, the results might have been more robust. The findings also cannot be generalized, as the data were collected exclusively from students. Additionally, most of the scales were lengthy, which caused participants to feel fatigued while completing the questionnaires.

Implications of the Study

This study can help in developing intervention strategies to reduce gaming addiction and effectively regulate emotions, thereby mitigating its negative impact on mental health. Addicts can benefit from strategies such as reintegrating routine activities from their pre-addiction lifestyle, seeking medical and psychological support, and increasing parental involvement to monitor and spend quality time with their children to prevent addiction. Establishing a structured schedule can effectively limit excessive PUBG gameplay. Additionally, relaxation techniques such as deep breathing and progressive muscle relaxation can be employed to manage aggression among addicts. Parental awareness is crucial, as inadequate parental involvement may contribute to video game addiction among young adults. Educating youth about the adverse consequences of PUBG can enhance awareness and promote mental well-being. This study provides valuable insights into the relationships between PUBG addiction, emotional regulation, negative emotions, and mental health issues. Medical and academic professionals can utilize these findings to conduct seminars in educational institutions and healthcare settings to educate PUBG addicts about the detrimental effects and coping strategies associated with excessive gaming.

Acknowledgement: We duly acknowledge the thought-provoking suggestions provided by the reviewers, which were indeed very beneficial in improving the quality of this manuscript.

Conflicts of interests: The authors have not revealed any conflicts of interest.

Funding: This study was conducted without receiving any funding.

Authors' contribution: Muhammad Sajjad Shahid (planned the study, collected data and wrote original draft), Faiqa Yaseen (supervision, writing-reviewing and editing)

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