JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal

ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

ACTIVE VIDEO GAMING AND SOCIAL CONNECTEDNESS AMONG ADOLESCENTS: A MEDIATION ANALYSIS OF EMOTIONAL REGULATION

Amna Khalid[*1], Dr. Hira Jahangier[2], Muhammad Ashfaq[3]

[*1]*MS Scholars, Department of Clinical Psychology, Faculty of Allied Health Sciences, The Superior University, Lahore, Pakistan*
[2]*Lecturer Psychology, Higher Education Department, GOP, Lahore*
[3]*MS Scholars, Department of Clinical Psychology, Faculty of Allied Health Sciences, The Superior University, Lahore, Pakistan*

[*1]khalid90188329@gmail.com, [2] hirabutt411@gmail.com, [3] muhammadashfaq4362390@gmail.com

DOI: https://doi.org/10.5281/zenodo.23120721

Keywords
Active Video Gaming, Social Connectedness, Emotional Regulation, Adolescents

Article History
Received: 25 June 2026
Accepted: 16 September 2026
Published: 03 October 2026

Copyright @Author
Corresponding Author: *
Amna Khalid

Abstract

This study aimed to examine the relationship between active video gaming, emotion regulation and social connectedness among adolescents. Also, the predictive effect of active video gaming on social connectedness and emotion regulation and the mediating effect of emotion regulation in the relationship between active video gaming and social connectedness were explored. For this purpose, a purposive sample of 385 adolescents was selected. Three research tools, including Game Addiction Scale for Adolescents (GASA; Lemmens et al., 2009), Social Connectedness Scale-Revised (SCS-R; Lee et al., 2001), and Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) were used. Results showed that there was a negative correlation between problematic video gaming and social connectedness and cognitive reappraisal but a positive correlation between problematic video gaming and expressive suppression. Social connectedness was positively correlated with cognitive reappraisal but negatively correlated with expressive suppression. Active video gaming significantly predicted social connectedness and cognitive reappraisal negatively but predicted expressive suppression positively. Additionally, cognitive reappraisal and expressive suppression partially mediated the relationship between active video gaming and social connectedness. The school-based counseling and psychoeducation can assist adolescents in controlling their gaming behavior and regulating their emotions. The study is significant for educational, social and counseling psychology.

1. INTRODUCTION

Active video gaming is a popular leisure activity among adolescents that may affect their psychosocial and emotional functioning. According to research, gaming can both be good and bad depending on how often the game and the type of interaction occur, along with adolescents' emotional coping abilities. Further, emotional regulation is influential in impacting social connectedness and peer interaction of adolescents in digital environments (Domoff et al., 2019; Teng et al., 2022). This is the importance of knowing how active video gaming is connected to social

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

connectedness and whether emotional regulation mediates this connection among adolescents.

Active video games are video games that require the player's physical, cognitive, and affective participation during play. Compared to passive screen-based activities, active video gaming involves real-time decision-making, physical movement, social interaction, and emotional responses, making it a multidimensional leisure activity among adolescents (Schettler et al., 2024). Active video gaming includes many video games featuring online multiplayer, motion games, exergies, and competitive digital games where players physically perform actions and are able to actively compete against other players through strategies, communication and other behavioral reactions. Adolescents use video gaming not only for entertainment but for interaction with others, emotional expression, and coping with stress (Joy & Mathai, 2024).

kowert and Domahidi (2021) Active video gaming is an important socializing behavior of adolescents and influences their interactions and development of social relationships. Through collaboration, competition, and communication within a virtual environment, modern multiplayer and online games allow adolescents to maintain peer relationships that enhance their sense of belonging and social connectedness. Research showed that engaging in gaming in a balanced and healthy way can strengthen friendships, teamwork, and communication in socially interactive gaming environments.

Pooja et al. (2025) social connectedness as feeling close to, committed to, and accepted by other people in social environments. Researchers claim that active video gaming can putatively promote social connectedness through teamwork, communication, and shared gaming experiences between peers. Packed with amusement, gaming can also put a dent in face-to-face interaction and lead to social isolation, loneliness, and psychological difficulties. Recent researches showed that problematic gaming behaviors were significantly related to lower levels of social connectedness and psychosocial adjustment among adolescents.

Teenage friendship closeness is significantly impacted by video games (Pouwels et al., 2021), which also enhance social connectedness by allowing teenagers to interact digitally with their peers. For example, when playing multiplayer online games, players collaborate and compete with one another as well as engage with individuals from diverse backgrounds. All of this results in online connections and groups, which are great for teenagers who might have trouble interacting with others in person. Playing prosocial games that promote cooperation, teamwork, mutual aid, and resource sharing with other players also fosters prosocial behaviours, compassion, and social skills (Shoshani et al., 2021).

Emotion regulation is the capability to monitor, manage, control, and express one's emotions to suit the demands of different situations. In the context of active video gaming, emotional regulation is important in terms of the reaction of adolescents (also known as teenagers) during gaming, during social activities, during competition, and during stressful situations involving gaming. Further, teens usually play video games to cope with stress and anxiety, frustration, and negative feelings. Thus, emotional regulation plays an important role in gaming behavior (Schettler et al., 2023).

Emotional regulation could mediate the relationship between active video gaming and social connectedness. For healthy social gaming experiences that encourage peer bonding and cooperative interaction, adolescents must be emotion-regulated. Emotionally dysregulated adolescents tend to experience social withdrawal, aggression, and gaming difficulties. Recent studies have consistently indicated that emotional difficulties, self-control difficulties, and stress contribute to adolescents' pathological gaming. This suggested that examining emotional regulation as a mechanism to affect social outcomes related to gaming would be an important area to investigate (Kim et al., 2025).

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

1.1 Objective of the Study

- To examine the significant relationship between active video games, emotional regulation and social connectedness
- To analyze the significant impact of active video games on emotional regulation and social connectedness
- To see the mediating role of emotional regulation between active video gaming and social connectedness

1.2 Hypotheses of the study

- H1: There would be a significant correlation between active video games, emotional regulation and social connectedness
- H2: There would be a significant impact of active video games on emotion regulation and social connectedness
- H3: Emotion regulation would play a mediating role between active video games and social connectedness.

1.3 Rationale and Significance of the Study

Gaming has become increasingly popular among adolescents. This may influence the social interaction and emotional functioning of the adolescents. According to Too et al. (2022), a teen's connection with others and ability to control their emotions influences their mental well-being. Recent studies show that recent generations of active video gaming can improve social interaction and emotional experience under conditions of balance and social interaction (Rüth & Kaspar, 2021). Nevertheless, few studies have examined emotional regulation as a mediator between social connectedness and active video gaming, particularly in Pakistani adolescents. Therefore, the present study aims to fill this gap and provide insight into adolescents' social skills, emotional competencies, and gaming behaviors.

In addition, today's adolescents spend considerable time in digital and gaming environments, which may influence their emotional behavior and social interactions. Adolescents' gaming experiences may be managed via emotional regulation, and this may assist them in improving their social interaction with peers (Gross, 2015). It is important to understand these relationships because emotionally and socially healthy adolescents are more likely to use active video gaming for recreational play, communication, and positive engagement rather than to escape their emotions or engage in problematic behavior. Consequently, this study may shed light on the extent to which emotional regulation moderates the relationship between social connectedness and active video gaming among adolescents.

2. Literature Review

The current study is theoretically grounded in the ideas of social connectedness, emotional regulation, and active video gaming among adolescents. According to Steinberg (2017) adolescence is a difficult phase of development. During this time, adolescents undergo rapid changes to their emotions, social relationships, and behaviors. They depend on their friends, use emotions and different digital environments. A study revealed that the emotional experience, peer bonding and social behavior of adolescents may be influenced by active video game environments (Gómez-León, 2025). Likewise, social connectedness is also noted as an important protective factor for adolescents' emotional adjustment, psychological well-being, and interpersonal functioning (Too et al., 2022). In addition, emotional regulation plays a key role in how adolescents manage feelings, respond to stress, and engage socially in person and online (Gross, 2015). Consequently, theories of social interaction, emotional development, and media engagement offer an approach to understanding how active video gaming is related to adolescents' social connectedness and emotional regulation.

Playing active video games may have a positive effect on adolescents' social and affective experiences. Nagata et al. (2026) reported that active gaming activities may strengthen adolescent friendship, peer communication, and social bonding as multiplayer gaming environments encourage interaction and cooperation among players. Just like that, Mittmann et al. (2022) found that augmented

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

reality games with social interaction enhance adolescents' belongingness, classroom climate, and peer connection through cooperative game experience. The findings suggest that playing video games in active and participatory environments may support adolescents' social connectedness and interpersonal development.

The social connectedness of participants supports adolescent development and serves as a protective measure. The term implies individuals' perception of connectedness with their peers, family, school, and community, as well as emotional closeness and supportive relationships (Too et al., 2022). Adolescents who are more socially connected show healthier emotions, higher self-esteem, and lower feelings of loneliness and psychological distress. Weak social connectedness, on the other hand, has been linked to social isolation, depression and emotional difficulties (Allen et al., 2021). Collaborative digital activities and experiences in social gaming environments impact adolescents' feelings of belongingness and peer interaction.

Research suggested that socially supportive environments may affect the gaming behavior and emotions of adolescents towards active video gaming. Adolescents with greater peer support, family bonding, and school connectedness are more likely to cope better emotionally, enjoy positive social interaction, and engage more moderately (Do et al., 2025). Adolescents who experience inadequate social connectedness and difficulties with emotional regulation may use gaming to escape emotionally, lessen stress, or avoid real-life social challenges (Schettler et al, 2024).

Games that allow adolescents to play with friends in a physically active way may also help in expressing emotions, team building, communication and peer involvement (Mittmann et al., 2022). Therefore, emotional regulation may be an important psychological mechanism through which social connectedness influences adolescents' active video gaming experiences and behavioral outcomes. Lobel et al. (2017), video gaming might enhance emotional coping and recovery from stress through emotionally engaging and socially interactive experiences. The study suggested that games can provide adolescents with a space to practice their adaptive emotional responses and reframe frustrations in a way that is less threatening.

Tyack and Mekler (2020) found that emotionally challenging games may promote players' emotional development and reflective thinking. Their findings showed that emotionally engaging gameplay experiences encourage players to reconstrue emotional situations, tolerate frustration, and develop adaptive emotional coping strategies.

2.1 Theoretical Background

2.1.1 Uses and Gratification theory (UGT). The Uses and Gratifications theory or UGT, gives the notion of other video games in social science proposed by Katz et al. (1973). This theory proposed that people select media and digital actions according to their psychological and social needs like entertainment, relaxation, emotional release, achievement, and social interaction. In active video gaming, young people play exergames and multiplayer games for fun, physical activity, stress relief and connection with peers. Teenagers often use active video gaming for emotional coping, social bonding, and enjoyment (Hamari & Tuunanen, 2014). The theory explains the strength of the adolescents' motivations to engage in playing the videogames.

2.1.2 Belongingness Theory. The Belongingness Theory by Baumeister and Leary (1995) stated that the need to belong is a fundamental human motivation. Individuals, according to this theory, have a fundamental drive to be with others in a relationship that provides a stable and affectively meaningful sense of security. Teens who feel accepted, loved, and emotionally supported by their peers, family, and social groups have a better emotional functioning and mental health. The theory further suggests that the lack of belongingness may also enhance loneliness, depression, anxiety, and emotional problems. Recent studies of adolescents have reaffirmed the significance of belongingness for mental

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

health and social development (Allen et al., 2021).

Xu (2025) has also shown that young people make use of the gaming environment to fulfil social needs like belongingness, acceptance by peers, and companionship. Online multiplayer gaming communities shape adolescents' social identity and sense of belonging significantly. Research suggests that gaming together may help adolescents develop friendships, group identity, and participate in society. The author also observed that unhealthy online behavior, which constitutes cyberbullying, could damage great social interaction if the gaming environment is not moderated properly (XU, 2025).

Pooja et al. (2025) found there is a strong negative relationship between problematic video gaming and social connectedness. Teens with excessive gaming activity had a lower degree of socialization and bonding. The study concluded that moderate and socially balanced gaming may facilitate social interaction while excessive or addictive gaming patterns may lead to social isolation and reduced emotional engagement with others.

Gaming activities that included cooperation, peer interactions, communication, and an equal share of games lead to a positive effect on the social connectedness of adolescents. However, gaming too much or problem gaming can negatively impact relationships and feelings. As a result, one may see that the regulation of emotions and healthy gaming practices plays an important role in deciding the social benefits or harms adolescents face because of gaming experiences (Gonçalves et al., 2023).

Further, in a systematic review on video games for emotion regulation, it was revealed that the appropriate use of video games may uplift mood, reduce stress, and engender positive feelings. According to the review, games that are emotionally engaging can help adolescents to manage their affective states, relieve emotional tension, and improve abilities for emotional coping (Villani et al., 2018). According to research, the link between emotion regulation strategies and problematic online gaming in adolescents is highly correlated with gaming problems. As per the findings, adolescents who experience difficulty in managing their repetitive negative thought patterns become more reliant on gaming for emotional relief and avoidance (Kökönyei et al., 2019).

Schettler et al. (2023) found that emotion regulation difficulties predict problematic gaming in adolescents. According to the research, adolescents with less mature emotional regulation abilities are at a greater risk for addictive gaming behavior because it is often used to escape or cope with stress, anxiety, and negative emotions.

According to research by Ma et al. (2025) it was suggested that positive emotional regulation impacts adolescents' social adaptability through better connection with parents. Adolescents who can regulate emotions were seen to be positively communicating with parents and peers. This reinforces social functioning and relationships. The skill of emotional regulation helps adolescents manage social challenges and stay connected with social supporters (Ma et al., 2025).

Azevedo et al. (2025) parental emotional socialization and adolescents' emotional regulation difficulties using network analysis. Research suggested that supportive parental emotional reactions (e.g., empathising with the youth, giving emotional rewards, and providing emotional validation) are associated with fewer emotional regulation difficulties. On the other hand, emotional dysregulation and social-emotional adjustment problems were associated with neglect and punishment from parents.

Liu et al. (2024) investigated emotional regulation in different social situations and examined how adolescents' emotional regulation strategies vary across interpersonal and academic social contexts. According to the results of the experiment, social environment that is positive fosters cognitive reappraisal and emotional expression as adaptive emotional regulation strategies. Further, stress in the social environment fosters emotional suppression and avoidance as maladaptive strategies.

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

According to recent literature, varying degrees of emotional regulation can serve as a significant mediator between social connectedness and active video gaming. Researchers say that young people who are more socially connected will usually have better emotional regulation. This will influence the way they interact with gaming environments, which will make gaming either adaptive or problematic (Goh et al., 2025). Teenagers tend to use gaming for fun, teamwork, and chatting if they are more peer-and-family connected. On the other hand, adolescents who are emotionally dysregulated tend to use gaming to escape stress, loneliness, or dislike feelings. Moreover, Teenagers skilled in managing emotions develop healthier relationships and better social adjustment. According to researchers, emotional regulation is an internal psychological mechanism that connects social experiences with behaviours. This mediation process may also account for how social connectedness affects adolescents' involvement in active video gaming (Meyer et al., 2025).

Schettler et al. (2023) found that emotional dysregulation predicts problematic gaming in adolescents. Video gaming behaviors involving the use of video games for an extended period of time to cope with stress, worry, and negative feelings represent unhealthy gaming patterns. Adolescents with poor emotional regulation capabilities are more vulnerable to unhealthy gaming patterns because of the use of video games for coping. Supportive social relationships may mitigate adolescent problematic gaming by improving emotional regulation (Kokonkei et al., 2019).

Feeling socially connected to peers as well as non-family member's helps adolescents effectively regulate their emotions in everyday life. Researchers found that connectedness, which makes students more socially aware, improved adolescents' emotional coping. The results indicated that linked adolescents may use active video gaming in healthier and more socially adaptive ways because of higher emotional control (Do et al., 2025).

Kim et al. (2025) supportive social settings enable adolescents to regulate their social boundaries, manage emotional expression, and enhance interpersonal trust within online communication. The findings of the study revealed that emotional regulation supports healthier social interaction by adolescent digital users. The research pointed out that teens with better emotional control and interpersonal trust engage more meaningfully socially online (Kim et al., 2025).

3. Method

3.1 Research Design

The quantitative, correlational research design was used to assess the relation of active video gaming and social connectedness in adolescents with emotional regulation as a mediating variable.

3.2 Participants

A total of 385 adolescents were chosen for this study using the purposive sampling technique from various schools and community centers in Lahore who were easily approachable. The age of Participants varied from 13 years to 18 years and were involved in active video gaming. Participants were enrolled in an educational institute and came from varied socio-economic backgrounds.

Individuals aged 13-18 years who were enrolled in an educational institution and who played video games were included in the study. Students of either gender who could read and understand the study questionnaires and agreed to participate in the study voluntarily were included in the study. The final sample was restricted to those participants who gave informed consent and completed all the study measures. In the study, participants were excluded if they were less than 13 years or more than 18 years of age. Further, they were also excluded if they did not play video games or did not fill the questionnaire. People who either declined to take part, withdrew during the data collection or were incomplete in their answers were also excluded.

3.3 Research Instruments

3.3.1) Demographic Sheet. The researcher designed a demographic information sheet to

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

gather relevant background information from the subjects. The section included questions relating to age, gender, educational level, marital status, residence (urban/rural), family system (nuclear/joint), type of active video games played, and average number of hours of gaming per day. The sample characteristics were described and demographic differences in active video gaming, social connectedness and emotional regulation was examined using the information collected through the demographic sheet.

3.3.2) Game Addiction Scale for Adolescents (GASA; Lemmens et al., 2009). The Game Addiction Scale for Adolescents (GASA) was designed by Lemmens et al. (2009) to assess gameplay behavior in adolescents. The scale includes 7 items that gauge the seven significant dimensions of gaming addiction: salience, tolerance, mood modification, withdrawal, relapse, conflict, and problems. The respondents give answers on a 5-point Likert scale that ranges from 1 (Never), to 5 (Very Often), based on their experience of gaming within the past six months. A higher score shows a higher level of problem gaming and gaming addiction. The scale has shown good psychometric properties. The GASA showed good internal consistency in the validation study with a Cronbach's alpha coefficient of .82 on the 7-item version. The scale has been frequently used in adolescents and reported to have acceptable reliability and validity across cultures. In the current study, GASA was utilized to assess active and problematic video gaming behavior in adolescents (Lemmens et al., 2009).

3.3.3) Social Connectedness Scale–Revised (SCS–R; Lee et al., 2001). The Social Connectedness Scale-Revised (SCS-R) was created by Lee et al. (2001) to measure closeness, belongingness, and connectedness with others. The scale consists of 20 items and tries to gauge the degree to which people feel they belong to their social world. The SCS–R is a one-dimensional scale measuring overall social connectedness. Participants react to each item using a 6-point Likert scale ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). A few of the items were reverse scored, such as 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 18, 19, and 20 and higher total scores pertain to a stronger sense of belonging and social connectedness. This scale has sound psychometric properties. Indeed, the initial study reported a Cronbach's alpha coefficient of .92, which indicates good internal consistency reliability (Lee et al. 2001). The researchers in the current research used the Social Connectedness Scale-Revised (SCS-R) to evaluate the social connectedness of adolescents.

3.3.4) Emotion Regulation Questionnaire (ERQ; Gross & john, 2003). This scale was developed by Gross and John (2003). It consists of 10 items scored on a 7-point Likert scale. The measures of the scale include expressive suppression and cognitive reappraisal. The first one is made up of six items encompassing CR (1, 3, 5, 7, 8, and 10). The second one, on the other hand, is made up of four items covering ES (2, 4, 6, and 9). Independent total scores on the designated subscales (CR, ES) that combine additively. Participants received higher scores on some subscales as a reflection of the frequency of use of that tactic, while lower scores denote use of the emotion-regulating technique. The ERQ had a mean Cronbach's alpha internal reliability coefficient of 0.79 and 0.73 for expressive suppression and cognitive reappraisal, respectively (Gross & John, 2003).

3.4 Procedure

Before the collection of data, the topic was approved by the Board of Studies (BOS) research committee. Permission to use the research instruments was taken priory form original authors. After taking permission from the educational institution concerned, the willing respondents were contacted and apprised about the study objective and purpose. Participants were assured that participation is voluntary. Information will remain confidential and be used strictly for research purposes only. Participants who fit the inclusion criteria were invited to participate in the study. Before

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

administering the research instruments, written informed consent was obtained from all the participants. The participants were provided a demographic information sheet and all research instruments. Participants received clear instructions for completing the questionnaires and were encouraged to answer honestly. It is required approximately of 15-20 minutes to complete the questionnaire package. After data collection, the questionnaires were screened for completeness, and incomplete responses were excluded from the analysis. The information gathered was coded and entered into the Statistical Package for Social Sciences (SPSS-26) for analysis. To assess the study hypotheses and examine the relationships of active video gaming, social connectedness, and emotional regulation among adolescents, descriptive statistics, reliability analyses, Pearson product-moment correlation, independent samples t-test, and mediation analyses were conducted.

5 Results

The findings of the study that investigates the effect of active video gaming on social connectedness of adolescents, in which emotion regulation such as cognitive reappraisal and expressive suppression were used as mediators.

The sample consisted of 199 males (51.7%) and 186 females (48.3%). Participants ranged in age from 13 to 18 years (M = 15.68, SD = 1.63). Of these, 173 (44.9%) were aged 13–15 years, whereas 212 (55.1%) were aged 16–18 years. Regarding education, 271 respondents (70.4%) were enrolled in BS programs, 89 (23.1%) in MS/MPhil programs, and 25 (6.5%) in PhD programs. A majority belonged to joint families (71.9%), while 28.1% belonged to nuclear families. Furthermore, 62.6% resided in urban areas and 37.4% in rural areas. Regarding daily active gaming duration, 181 respondents (47.0%) played for 5–7 hours, 129 (33.5%) played for 8–10 hours, and 75 (19.5%) played for more than 12 hours per day.

GAS consists of 7 items with alpha coefficient α=.85, SCS consists of 20 items with α= .93, ERQ consists of 10 items, CR and ES consist of 6 and 4 items with alpha coefficient .80 and .74, respectively. All the scales show a good range of alpha coefficient values. The mean score for the Gaming Addiction Scale was 17.25 (SD = 5.08). Scores for the scale ranged from 7 to 33. The mean score for the Social Connectedness Scale was 82.89 (SD = 14.14), with scores ranging from 46 to 116. The mean score for cognitive reappraisal (a subscale for emotion regulation) was 27.05 (SD = 5.21), while the range of observed scores was 11–41. The mean score for expressive suppression (another subscale of emotion regulation) was 14.70 (SD = 3.67), with scores ranging from 5 to 24. Skewness and kurtosis were between −0.15 and 0.35, −0.35 and 0.01, respectively. Such findings indicate acceptable values and normal distribution of data.

Table 1 shows the bivariate correlation between active video gaming, social connectedness, cognitive reappraisal, and expressive suppression. The correlation between active video gaming and social connectedness is significantly negative, r (383) = −.48, p < .001, while the correlation between active video gaming and cognitive reappraisal is significantly negative, r (38) = −.38, p < .001. However, the correlation between video gaming addiction and expressive suppression is significantly positive, r (383) = .38, p < .001. Social connectedness has a significantly positive correlation with cognitive reappraisal, r (383) = .54, p < .001, while it has a significantly negative correlation with expressive suppression, r (38) = −.46, p < .001.

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

Table 1

Variables	1	2	3	4
1. Active Video game	-			
2. Social Connectedness	-.47**	-		
3. Cognitive Reappraisal	-.38**	.54**	-	
4. Expressive Suppression	.37**	-.45**	-.23**	-

Correlation Matrix of Active Video Gaming, Emotion Regulation and Social Connectedness (*N*=385)
Note. ** $p < .01$. All reported correlations were significant at $p < .001$.

The results of linear regression analyses are shown in Table 2 for the effects of Active video gaming addiction on social connectedness, cognitive reappraisal, and expressive suppression. Video Gaming addiction significantly and negatively predicted social connectedness, $B = -1.32$, $SE = 0.12$, $\beta = -.47$, $t = -10.60$, $p < .001$. The regression model was statistically significant as $F(1, 38) = 112.25$, $p < .001$ and gaming addiction accounted for 22.7% of the variance in social connectedness ($R^2 = .22$). This research suggests that the more a person scored on the gaming addiction scale, the lower their social connectedness score. Gaming addiction also significantly and negatively predicted cognitive reappraisal, $B = -0.38$, $SE = 0.05$, $\beta = -.38$, $t = -7.85$, $p < .001$. The model explained 14.4% of the variance in cognitive reappraisal, $R^2 = .14$, and was statistically significant, $F(1, 38) = 64.51$, $p < .001$. Therefore, higher gaming addiction was found to be correlated with lower cognitive reappraisal. However, expressive suppression was significantly and positively predicted by gaming addiction, $B = 0.27$, $SE = 0.03$, $\beta = .37$, $t = 7.72$, $p < .001$. The proportion of variance of expressive suppression accounted for by gaming addiction was 14.2% ($R^2 = .14$). This finding confirms that the higher the gaming-addiction score, the higher the level of adolescents' use of expressive suppression.

Table 2
Simple Linear Regression of Active video Gaming Predicting Emotion-Regulation Strategies and Social Connectedness (N = 385)

Outcome variable	*B*	*SE*	*β*	*t*	*P*	R^2
Social connectedness	−1.32	0.12	−.47	−10.59	< .001	.22
Cognitive reappraisal	−0.38	0.05	−.38	−7.84	< .001	.14
Expressive suppression	0.27	0.03	.37	7.71	< .001	.14

Note: Predictor =Active Video Gaming, B = unstandardized regression coefficient; *SE* = standard error; *β* = standardized regression coefficient

Table 3 shows the parallel mediation of the relationship between gaming addiction and social connectedness by cognitive reappraisal and expressive suppression. A higher level of gaming addiction significantly and negatively predicted the use of cognitive reappraisal, $B = -0.38$, $SE = 0.05$, $t = -7.85$, $p < .001$. However, expressive suppression was significantly and positively predicted by gaming addiction ($B = 0.27$, $SE = 0.03$, $t = 7.72$, $p < .001$), such that the more people were addicted to gaming, the more they used expressive

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

suppression. Cognitive reappraisal was a significant and positive predictor of social connectedness, B = 1.06, SE = 0.11, t = 8.97, p < .001. In contrast, expressive suppression was a significant and negative predictor of social connectedness, B = −1.08, SE = 0.14, t = −7.32, p < .001. The direct pathway between gaming addiction and social connectedness was still significant after the two mediators, B = −0.61, SE = 0.12, t = −4.99, p < .001. The indirect effect through cognitive reappraisal was significant, B = −0.41, BootSE = 0.07, 95% CI [−0.55, −0.28]. The indirect effect through expressive suppression was also significant, B = −0.29, BootSE = 0.05, 95% CI [−0.41, −0.19]. The total indirect effect was significant, B = −0.71, BootSE = 0.08, 95% CI [−0.89, −0.54]. As the direct effect was still significant and the two indirect effects were significant, cognitive reappraisal and expressive suppression partially mediated the relationship between gaming addiction and social connectedness. The overall outcome model was significant, F (3, 381) = 111.48, p < .001, explaining 44.69% of the variance in social connectedness, R^2 = .44.

Table 3

Mediation of Cognitive Reappraisal and Expressive Suppression in the Relationship between Active Video Gaming and Social Connectedness (N = 385)

Predictor and path	Effect	B	SE/BootSE	t	p	95% CI
Gaming addiction						
Active video Gaming → Cognitive reappraisal	Path a_1	−0.38	0.05	−7.84	< .001	[−0.48, −0.29]
Cognitive reappraisal → Social connectedness	Path b_1	1.06	0.11	8.97	< .001	[0.83, 1.29]
Active video Gaming → Expressive suppression	Path a_2	0.27	0.03	7.71	< .001	[0.20, 0.34]
Expressive suppression → Social connectedness	Path b_2	−1.08	0.14	−7.31	< .001	[−1.38, −0.79]
Active video Gaming → Social connectedness	Direct effect (c')	−0.61	0.12	−4.99	< .001	[−0.85, −0.37]
Active video Gaming → Cognitive reappraisal → Social connectedness	Indirect effect (a_1b_1)	−0.41	0.07	–	–	[−0.55, −0.28]
Active video Gaming → Expressive suppression → Social connectedness	Indirect effect (a_2b_2)	−0.29	0.05	–	–	[−0.41, −0.19]
Total indirect effect	$\Sigma a^{**}b$	−0.71	0.08	–	–	[−0.89, −0.54]

Note: PROCESS Model 4 has been carried out using 5,000 bootstrap resamples along with heteroscedasticity robust standard errors (HC3). B refers to the unstandardized regression coefficient while SE refers to the standard error. Boot SE refers to bootstrap standard error while CI refers to confidence interval. Indirect effects are considered to be statistically significant if 95% bootstrap confidence interval does not include zero

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal

ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

5 Discussion

The present research analyzed these correlations in 385 people. It also investigated the predictive role of active video gaming in social connectedness and emotion-regulation strategies, as well as the mediating roles of cognitive reappraisal and expressive suppression in the relationship between active video gaming and social connectedness.

The **H1** of present study was "There would be a significant relationship between active video gaming, emotional regulation and social connectedness. The results of this hypothesis are explained in Table 3. Table 3 presents the bivariate correlations among active video gaming, social connectedness, cognitive reappraisal, and expressive suppression. The correlation between active video gaming and social connectedness was significantly negative, while the correlation between active video gaming and cognitive reappraisal was significantly negative. However, the correlation between gaming addiction and expressive suppression was significantly positive. Moreover, Social connectedness had a significant positive correlation with cognitive reappraisal and a significant negative correlation with expressive suppression. Similar results were found to be consistent by Uçur and Dönmez (2020) in a study of 1291 adolescents, which found that problematic Internet gaming was linked to lower perceived social support. The researchers found that teens who are having issues with their games might have less positive relationships or less participation in offline social networks. The negative link between problematic gaming and social connectedness that was identified in the current study is also consistent with previous studies on adolescent gaming that identified that gaming disorder is linked to poor social relationships with parents, teachers, and peers (Tan et al., 2024).

In addition, Pooja et al. (2025) also found that there was a strong negative relationship between problematic video gaming and social connectedness. Teens with excessive gaming activity had a lower degree of socialization and bonding. The study concluded that moderate and socially balanced gaming may facilitate social interaction, while excessive or addictive gaming patterns may lead to social isolation and reduced emotional engagement with others. Gaming activities that included cooperation, peer interactions, communication, and an equal share of games lead to a positive effect on the social connectedness of adolescents. However, gaming too much or problem gaming can negatively impact relationships and feelings. As a result, one may see that the regulation of emotions and healthy gaming practices plays an important role in deciding the social benefits or harms adolescents face because of gaming experiences (Gonçalves et al., 2023).

Moreover, the link between emotion regulation strategies and problematic online gaming in adolescents was highly correlated with gaming problems. As per the findings, adolescents who experience difficulty in managing their repetitive negative thought patterns become more reliant on gaming for emotional relief and avoidance (Kökönyei et al., 2019). Yayla et al. (2025), the link between problematic digital gaming and life satisfaction is mediated by difficulties with emotional regulation. The study also found that greater difficulties with emotional regulation were linked to lower life satisfaction and more negative effects of excessive gaming behavior.

H2: There would be a significant impact of active video games on emotional regulation and social connectedness. The result of H2 was explained in Table 4. The scores from three simple linear regression analyses for the effects of gaming addiction on social connectedness, cognitive reappraisal, and expressive suppression. Gaming addiction significantly and negatively predicted social connectedness. The regression model was statistically significant and gaming addiction accounted for 22.7% of the variance in social connectedness. This discovery suggests that the more a person scored on the gaming addiction scale, the lower their social connectedness score. Gaming addiction also significantly and negatively predicted cognitive reappraisal. The model explained 14.4% of the variance in cognitive

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

reappraisal, R^2 = .144, and was statistically significant. Therefore, higher gaming addiction was found to be correlated with lower cognitive reappraisal. However, expressive suppression was significantly and positively predicted by gaming addiction. The proportion of variance of expressive suppression accounted for by gaming addiction was 14.2% (R^2 = .142). This finding confirms that the higher the gaming-addiction score, the higher the level of adolescents' use of expressive suppression.

These results of H2 were consistent with past research as Active video gaming or exergaming can impact adolescents' social connectedness, peer relationships, and emotional level. Active video gaming – as opposed to traditional sedentary gaming – is distinct in that it engages players in (physical) movements, cooperation, and social interactions. All of these may support adolescents' feelings of belongingness and interpersonal engagement. Further, cooperative active video game "exergaming" has been shown to boost team identification, social relatedness, enjoyment, and peer interaction among players. According to researchers, cooperation-based exergames create social experiences through physical and emotional interaction among adolescents while playing (Wang et al., 2025). Further, Schettler et al. (2023) found that emotion regulation difficulties predict problematic gaming in adolescents. According to the research, adolescents with less mature emotional regulation abilities are at a greater risk for addictive gaming behavior because it is often used to escape or cope with stress, anxiety, and negative emotions.

Cognitive reappraisal was significantly and positively correlated with social connectedness. This discovery suggests that reinterpreting emotional circumstances was associated with increased perceived belonging to, and interpersonal connection with others among adolescents. Previous studies have demonstrated that cognitive reappraisal is linked to improved interpersonal functioning and expressive suppression is linked to poorer interpersonal functioning. Adolescent studies have also reported high associations between cognitive reappraisal, expressive suppression and school connectedness, indicating that emotion regulation among adolescents is tied to their sense of connectedness in their social context

H3: Emotion regulation would play a mediating role between active video games and social connectedness. Table 5 shows the mediation of the relationship between gaming addiction and social connectedness by cognitive reappraisal and expressive suppression. A higher level of gaming addiction significantly and negatively predicted the use of cognitive reappraisal. However, expressive suppression was significantly and positively predicted by gaming addiction such that the more people were addicted to gaming, the more they used expressive suppression. Cognitive reappraisal was a significant and positive predictor of social connectedness. In contrast, expressive suppression was a significant and negative predictor of social connectedness. The direct pathway between gaming addiction and social connectedness was still significant after the two mediators. The indirect effect through cognitive reappraisal was significant. The indirect effect through expressive suppression was also significant. The total indirect effect was significant. As the direct effect was still significant and the two indirect effects were significant, cognitive reappraisal and expressive suppression partially mediated the relationship between gaming addiction and social connectedness. The overall outcome model was significant. Explaining 44.69% of the variance in social connectedness, R^2 = .447.

These findings were consistent with the longitudinal results, suggesting that stress, aggression, self-control problems, and negative emotions contribute to pathological gaming. Poor emotional management and emotional instability increase the risk of unhealthy gaming practices among adolescents (Kim et al., 2025). It was revealed that emotional regulation partially mediated the link between digital game addiction and academic motivation. Teenagers with higher emotional regulation self-efficacy tend to engage in healthy gaming practices and have a better academic

JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

adaptability than those who have poor emotional regulation (Celikkaleli et al., 2025). Teenagers tend to use gaming for fun, teamwork, and chatting if they are more peer-and-family connected. On the other hand, adolescents who are emotionally dysregulated tend to use gaming to escape stress, loneliness, or negative feelings. Moreover, Teenagers skilled in managing emotions develop healthier relationships and better social adjustment. According to researchers, emotional regulation is an internal psychological mechanism that connects social experiences with behaviours. This mediation process may also account for how social connectedness affects adolescents' involvement in active video gaming (Meyer et al., 2025).

5.1 Limitations and Future Recommendations

- Due to its correlational design, causal relationships between active video gaming, social connectedness and emotion regulation cannot be inferred from the study.
- Self-report questionnaires were used to collect data, with the possibility of social desirability, miscalling, or response bias.
- The sample consisted of 385 respondents from a specific population and context, which may limit the extent to which results can be generalized.
- Only cognitive reappraisal and expressive suppression were included as emotion-regulation strategies in the study. Other strategies were not explored, for example rumination, acceptance, avoidance, and problem solving.
- It was not taken into account whether it was a certain video game, a gaming platform, a gaming motive or a context (online or offline).
- Longitudinal designs are needed for further study on the changes in active video gaming, emotion regulation, and social connectedness over time.
- Experimental or intervention studies should be carried out to further elucidate the potential causal relationships between the study variables.
- More studies are needed with subjects from various schools, colleges, cities, and cultures for better generalizability.
- More emotion-regulation strategies such as acceptance, rumination, emotional avoidance, and problem-focused coping should be explored.
- Future studies need to examine gaming-related variables including game genre, competitive gaming, playing online multiplayer games, motives for gaming, and gaming platform.
- Qualitative interviews can be employed to discuss how children experience games, emotional responses to games and social encounters.

Implications

- Adolescents should be screened for problematic gaming by school counsellors and school psychologists, especially if they state that they are withdrawing from others or are having trouble with their emotions.
- EI strategies need to emphasize cognitive reappraisal and decrease the use of expressive suppression.
- Parents need to be mindful of the amount of time spent gaming, and factor in the intent, context and emotional motives for adolescents' gaming.
- Families need to be good role models in expressing feelings openly so that adolescents feel free to express their emotions instead of suppressing them.
- Schools should offer social-skills programmes and peer-support activities, and group-based recreational opportunities to enhance social connectedness.
- When evaluating adolescents who report feeling lonely, poor peer relationships, or emotional problems, mental-health workers should take into account their game behaviours.
- Awareness programmes should raise awareness among adolescents about healthy gaming, balanced screen time, and the

ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

potential social and emotional implications of excessive gaming.

- Results could be used to guide the design of preventative education programs that would affect better emotional regulation and lessen the social implications of disordered gaming.

5.4 Conclusion

The present study examined the relationships among active video gaming, social connectedness, cognitive reappraisal, and expressive suppression among 385 respondents. The findings showed that higher active video gaming was significantly associated with poorer social and emotional outcomes. Higher gaming-addiction scores were linked with lower social connectedness and lower cognitive reappraisal, while they were associated with greater expressive suppression. Social connectedness was positively related to cognitive reappraisal and negatively related to expressive suppression. These findings indicate that adaptive emotion regulation may strengthen adolescents' social relationships, whereas emotional suppression may weaken their sense of belonging and interpersonal connection. The regression findings further demonstrated that active video gaming significantly predicted social connectedness and both emotion-regulation strategies. Active video gaming negatively predicted social connectedness and cognitive reappraisal, while positively predicting expressive suppression. This suggests that adolescents with greater problematic gaming tendencies may experience reduced social involvement, may be less likely to reinterpret emotional situations positively, and may rely more heavily on hiding or controlling the outward expression of emotions. The mediation analysis showed that cognitive reappraisal and expressive suppression significantly and partially mediated the relationship between active video gaming and social connectedness. Higher gaming addiction was associated with lower cognitive reappraisal and greater expressive suppression, which in turn contributed to lower social connectedness. However, the direct effect of gaming addiction on social connectedness remained significant, indicating that emotion-regulation strategies explained part, but not all, of this relationship.

5.5 Conflict of Interest

The authors declare no personal, institutional, financial, or commercial conflicts of interest related to this study. This manuscript is an original publication based on the dataset. No other manuscript using this dataset has been published, accepted for publication, or submitted elsewhere.

REFERENCE

Allen, K. A., Kern, M. L., Rozek, C. S., McInerney, D. M., & Slavich, G. M. (2021). Belonging: A review of conceptual issues, an integrative framework, and directions for future research. *Australian journal of psychology*, *73*(1), 87-102. https://doi.org/10.1080/00049530.2021.1883409

Do, Q. B., McKone, K. M., Hofman, S. J., Morrow, K. E., Brehm, M. V., Ladouceur, C. D., & Silk, J. S. (2025). Feeling socially connected to others is linked to better emotion regulation in adolescent girls' daily lives: An ecological momentary assessment study. *Journal of Research on Adolescence*, *35*(1), e70009. https://doi.org/10.1111/jora.70009

Domoff, S. E., Borgen, A. L., Foley, R. P., & Maffett, A. (2019). Excessive use of mobile devices and children's physical health. *Human Behavior and Emerging Technologies*, *1*(2), 169-175. https://doi.org/10.1002/hbe2.145

Goh, C. Z., Ismail, A., Amat, M. A. C., Keh, F. B., & How, W. (2025). Effect of Perceived Social Support on Internet Gaming Disorder Mediated by Social Connectedness among Emerging Adults in Malaysia. *Health Education and Health Promotion*, *13*(2), 331-337. https://doi.org/10.58209/hehp.13.2.331

ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

Gómez-León, M. I. (2025). Serious games to support emotional regulation strategies in educational intervention programs with children and adolescents. Systematic review and meta-analysis. *Heliyon*, *11*(4). https://doi.org/10.1016/j.heliyon.2025.e42712

Gonçalves, D., Pais, P., Gerling, K., Guerreiro, T., & Rodrigues, A. (2023). Social gaming: A systematic review. *Computers in Human Behavior*, *147*, 107851.https://doi.org/10.1016/j.chb.2023.107851

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion-regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Hamari, J., & Tuunanen, J. (2014). Player types: A meta-synthesis. *Transactions of the digital games research association*, *1*(2). https://doi.org/10.26503/todigra.v1i2.13

Joy, E. A., & Mathai, S. M. (2024). The relationship between online gaming, emotional regulation and impulsivity in adolescents. *International Journal of Indian Psychology*, *12*(4). DOI: 10.25215/1204.116

Kim, J. A., Choi, J. I., Lee, S. J., & Jeong, E. J. (2025). The influence of negative emotions on adolescents' pathological gaming: the role of self-control in the associations with aggression, academic stress, and pathological gaming. *Frontiers in Psychology*, *16*, 1539162.

Kökönyei, G., Kocsel, N., Király, O., Griffiths, M. D., Galambos, A., Magi, A., & Demetrovics, Z. (2019). The role of cognitive emotion regulation strategies in problem gaming among adolescents: A nationally representative survey study. *Frontiers in Psychiatry*, *10*, 273. https://doi.org/10.3389/fpsyt.2019.00273

Lee, R. M., Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. *Journal of counseling psychology*, *48*(3), 310. https://psycnet.apa.org/doi/10.1037/0022-0167.48.3.310

Lemmens, J. S., Valkenburg, P. M., & Peter, J. (2009). Development and validation of a game addiction scale for adolescents. *Media psychology*, *12*(1), 77-95. https://doi.org/10.1080/15213260802669458

Ma, E., Lai, T., Lee, Y., Zhang, Y., & Fu, S. (2025). How does emotion regulation affect adolescents' social adaptability? Building bridges for parent-child communication, empowered by AI education. *Acta Psychologica*, *259*, 105444. https://doi.org/10.1016/j.actpsy.2025.105444

Mittmann, G., Barnard, A., Krammer, I., Martins, D., & Dias, J. (2022). LINA-a social augmented reality game around mental health, supporting real-world connection and sense of belonging for early adolescents. *Proceedings of the ACM on Human-Computer Interaction*, *6*(CHI PLAY), 1-21.

Pouwels, J. L., Valkenburg, P. M., Beyens, I., Van Driel, I. I., & Keijsers, L. (2021). Social media use and friendship closeness in adolescents' daily lives: An experience sampling study. *Developmental psychology*, *57*(2), 309. https://doi.org/10.1037/dev0001148

ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

Rüth, M., & Kaspar, K. (2021). Educational and social exergaming: a perspective on physical, social, and educational benefits and pitfalls of exergaming at home during the COVID-19 pandemic and afterwards. *Frontiers in psychology*, *12*, 644036.https://doi.org/10.3389/fpsyg.2021.644036

Schettler, L. M., Thomasius, R., & Paschke, K. (2024). Emotional dysregulation predicts problematic gaming in children and youths: a cross-sectional and longitudinal approach. *European child & adolescent psychiatry*, *33*(2), 605-616. https://doi.org/10.1007/s00787-023-02184-x

Shoshani, A., Braverman, S., & Meirow, G. (2021). Video games and close relations: Attachment and empathy as predictors of children's and adolescents' video game social play and socio-emotional functioning. *Computers in Human behavior*, *114*, 106578.https://doi.org/10.1016/j.chb.2020.106578

Teng, Z., Pontes, H. M., Nie, Q., Xiang, G., Griffiths, M. D., & Guo, C. (2020). Internet gaming disorder and psychosocial well-being: A longitudinal study of older-aged adolescents and emerging adults. *Addictive Behaviors*, *110*, 106530. https://doi.org/10.1016/j.addbeh.2020.106530

Too, E. K., Chongwo, E., Mabrouk, A., & Abubakar, A. (2022). Adolescent connectedness: a scoping review of available measures and their psychometric properties. *Frontiers in psychology*, *13*, 856621.https://doi.org/10.3389/fpsyg.2022.856621

Uçur, Ö., & Dönmez, Y. E. (2021). Problematic internet gaming in adolescents, and its relationship with emotional regulation and perceived social support. *Psychiatry research*, *296*, 113678. https://doi.org/10.1016/j.psychres.2020.113678

Villani, D., Carissoli, C., Triberti, S., Marchetti, A., Gilli, G., & Riva, G. (2018). Videogames for emotion regulation: a systematic review. *Games for health journal*, *7*(2), 85-99. https://doi.org/10.1089/g4h.2017.0108

Xu, L. (2025). How do online multiplayer video games shape teenagers' sense of social identity and belonging within gaming communities? An ethical perspective. *International Journal of Education and Humanities*, *19*(3), 235–237. https://doi.org/10.54097/afg33a4