

Problematic Online Gaming and Emotion Regulation in Indian Adolescents

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ABSTRACT

Problematic Online Gaming also referred to as Internet Gaming Addiction (IGD) is a growing concern worldwide, especially among adolescents, who are particularly susceptible due to their developmental stage and the immersive nature of modern video games. Internet Gaming Addiction (IGD) is characterized by excessive or compulsive use of games to the detriment of daily life activities, mental health, and relationships. The present study has examined the relationship between problematic internet gaming and emotion regulation among urban Indian adolescents (ages 15–17). Using the Internet Gaming Disorder Scale–20 to identify and find severity of problematic gaming and the Difficulties in Emotion Regulation Scale (DERS) to assess emotion regulation, 30 adolescents with problematic gaming behaviors were compared to 30 non-gamers (no gaming history). Results showed that the problematic gaming group had significantly higher DERS scores (greater emotion regulation difficulties) than non-gamers. These findings align with prior research indicating that emotion dysregulation is associated with excessive gaming. The study underscores the importance of assessing emotion regulation in adolescents at risk for gaming disorder and suggests incorporating emotional coping strategies into prevention efforts.

Keywords: Problematic Online Gaming, Emotion Regulation, Adolescents.

Introduction:

Internet gaming has become increasingly popular recreational activity among adolescents worldwide and in India. While moderate use of internet gaming also known as Online/video gaming may provide entertainment and cognitive benefits, problematic involvement in internet/online/video gaming, characterized by compulsive use and impaired daily functioning, has been found to be associated with various negative psychological outcomes, including poor emotion regulation (Kuss & Griffiths, 2012; Kardefelt-Winther, 2014). Problematic gaming can impair academic, social, and emotional functioning.

In 2013, the American Psychiatric Association introduced Internet Gaming Disorder (IGD) in DSM-5 as a condition warranting further study. The WHO later included Gaming Disorder in ICD-11. Prevalence estimates of IGD vary globally (0.7–15.6%, average~4.7%, Feng, W., Remo DE Chan SR, Bourgeois JA, 2017). Some Indian studies reporting rates around 3–5% in youth (Undavalli VK, Rani GS,

Kumar JR, 2020; J Gurjar Y, Nikita S, Himalay J, Margi J, Rajveersinh J, Abhishek J, Harsh H, Jaydip J. 2024).

Studies have documented varying prevalence rates of gaming addiction among adolescents. Kuss and Griffiths (2012) estimated that 8-12% of adolescent gamers show problematic gaming behaviors. In a study conducted in Singapore, Gentile et al. (2011) reported that approximately 10% of adolescent gamers met the criteria for gaming addiction, which is notably higher than rates observed in Western countries.

Emotion regulation refers to the ability to monitor, evaluate, and modulate emotional reactions. Adolescents are particularly vulnerable, as their emotional and cognitive regulation systems are still developing (Gross, 2014). This study investigates whether problematic online gaming is associated with impaired emotion regulation among adolescents.

Emotion regulation refers to the ability to manage and respond to emotional experiences. Difficulties in emotion regulation have been linked to various mental health issues and behavioral addictions. The Difficulties in Emotion Regulation Scale (DERS) is a 36-item self-report measure (Gratz & Roemer, 2004) assessing six facets of emotion regulation; higher DERS scores indicate greater dysregulation. Emerging evidence suggests that adolescents with poor emotion regulation may be more prone to problematic gaming, possibly using games to escape or cope with negative emotions. For example, a recent study found that emotion regulation difficulties predicted the development and maintenance of problematic gaming in youths. An Indian study of adolescents reported a positive correlation between internet gaming and emotional dysregulation, supporting this link.

Despite growing interest, few studies have examined these relationships in Indian adolescents. Using validated scales, the current empirical study compared emotion regulation in adolescents with and without problematic gaming in an urban Indian setting. It was hypothesized that adolescents with problematic gaming would exhibit greater difficulties in emotion regulation (higher DERS scores) than non-gamers.

Method of the Study:

Participants

The sample consisted of 60 urban adolescents (aged 15–17) recruited using purposive cum incidental sampling from different public or private high schools in Patna. Thirty participants (all male) met criteria for problematic online gaming (PG group), and thirty matched peers (all males) who did not engage in online/offline gaming formed the non-gamer control group (NG group). Problematic gamers were identified via screening with the IGD-20 and interviews suggesting problematic gaming (online/offline) behaviors. Though non of the games ever sought clinical help. Non-gamers reported no online/offline gaming activity in the past year. Informed consent from the participants was obtained.

Instruments:

Internet Gaming Disorder Scale- (IGD-20): A 20-item self-report measure developed by Pontes et.al. (2014) that assesses IGD symptoms based on DSM-5 criteria. The IGD-20 Test has a total of 20 items and conceptualizes disordered gaming according to the six first-order latent domains (i.e., components) well-established in behavioral addictions: ‘Salience’, ‘Mood Modification’, ‘Tolerance’, and ‘Withdrawal Symptoms’, ‘Conflict’, and ‘Relapse’ (Griffiths, 2005). The IGD-20 Test examines both online and/or offline gaming activities occurring over a 12-month period. Each item is rated on a 5-point Likert scale (1 = “strongly disagree” to 5 = “strongly agree”), yielding total scores from 20 to 100. Higher scores indicate more severe gaming problems. The IGD-20 has demonstrated good reliability and validity in cross-cultural samples; for example, it showed acceptable internal consistency (Cronbach’s $\alpha = .82$) in an Indian adolescent sample. In this study, the IGD-20 was used to identify the problematic gaming group (scores above the clinical cut-off, Score above 71) and confirm that non-gamers scored at the minimum.

Difficulties in Emotion Regulation Scale (DERS-36, Gratz, K. L., & Roemer, L. 2004): A 36-item self-report instrument assessing six facets of emotion regulation: nonacceptance, goals, impulse, awareness, strategies, and clarity. Items are rated 1 (“almost never”) to 5 (“almost always”), with higher total scores indicating greater difficulties. The DERS has been widely validated; Gratz and Roemer (2004) demonstrated strong internal consistency and construct validity. The DERS is designed to measure trait-level emotion regulation deficits, with higher scores reflecting poorer regulation.

Procedure:

Participants completed the questionnaires under researcher supervision. After obtaining consent, adolescents filled out the IGD-20 and DERS. The IGD-20 was used both to classify participants (PG vs. NG) and to quantify gaming severity. Non-gamers were included to provide a comparison group with minimal gaming-related scores. Data were analyzed using t-tests to compare group means on DERS scores.

Table 1:
Group Differences in Emotion Regulation (DERS Scores)

Group	N	Mean	DERS Score	Standard Deviation (SD) t-test (58df)	P-value
Problematic Gamers	30	90.21	16.20	2.49	<0.01
Non-Gamers (NG)	30	78.98	18.62		

Interpretation:

The key finding has been summarized in the result table-1 which showed that the Problematic Gamers group (PG) group showed significantly greater emotion regulation difficulties. The PG group's mean DERS total score was 90.21 (SD = 16.20), compared to 78.98 (SD = 18.62) in the Non-Gamers (NG) group. An independent-samples t-test confirmed this difference was statistically significant, t-test (with df=58) = 2.49. Thus, adolescents with problematic gaming reported higher overall DERS scores (poorer emotion regulation) than non-gamers.

Discussion:

The current findings demonstrate that urban Indian adolescents with problematic online gaming behaviors have more pronounced emotion regulation difficulties than non-gaming peers. This pattern aligns with international research linking emotion dysregulation to excessive gaming. For example, Schettler et al. (2024) found that difficulties in regulating emotions significantly predicted problematic gaming in youths. Similarly, an Indian sample showed positive correlations between IGD symptoms and DERS scores (Joy, E.A. & Mathai, S.M. (2024). The results extend these insights by providing direct group comparisons in an Indian adolescent context. Adolescents engaging in high levels of gaming may use gaming as a maladaptive coping strategy for negative emotions, leading to weaker development of adaptive emotion regulation skills.

The mechanism for this association may involve gaming serving as an escape from stress or emotional discomfort. Prior work (Uçur & Dönmez, 2021) suggests that adolescents who struggle to accept or manage negative feelings often resort to online gaming

for short-term relief. Over time, reliance on gaming can prevent learning healthier coping strategies, perpetuating both gaming problems and emotion regulation deficits.

The result highlight important implications for prevention and intervention. Screening for emotion regulation difficulties in adolescents may help identify those at risk for gaming problems. Interventions that teach adaptive emotion regulation and coping strategies (e.g., cognitive reappraisal, mindfulness) could reduce reliance on gaming as an escape. School-based programs in India might incorporate emotional skills training alongside digital literacy. Additionally, raising awareness among parents and teachers about the link between emotional distress and gaming excess could encourage timely support.

Limitations:

This study has several limitations. The sample size was modest (N=60) and male only and recruited via convenience sampling in one urban area, limiting generalizability. The cross-sectional design precludes causal inferences; it is unclear whether emotion dysregulation leads to problematic gaming or vice versa. Both gaming and emotion regulation were assessed by self-report, which may be subject to bias. The non-gamer group was characterized by lack of gaming, but other differences (e.g., leisure activities) were not controlled. The IGD-20 and DERS-36 were administered in English; although participants were proficient, future studies should consider validated local-language versions. Finally, only total DERS scores were analyzed; examining subscales could reveal more specific emotion regulation deficits associated with gaming.

Conclusion :

In an urban Indian adolescent sample, problematic online gaming was associated with significantly greater difficulties in emotion regulation compared to non-gaming peers. These findings underscore the role of emotional processes in gaming behaviors and suggest that interventions targeting emotion regulation may help mitigate gaming-related problems. Longitudinal studies are needed to clarify causal pathways, and larger multisite samples would enhance understanding of these dynamics in diverse Indian youth populations.

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