

Exploring Tolerance in Gaming and Gambling: A Comparative Analysis of Behavioral and Psychological Mechanisms

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ABSTRACT

Digital games have become a dominant medium with significant socio-cultural impacts. While gaming offers positive experiences, it also carries the potential for problematic patterns, such as Internet Gaming Disorder (IGD), first recognized in the DSM-5 in 2013. The convergence of gaming and gambling, through esports betting and gambling-like mechanics, has further complicated the distinction between these activities. This paper examines differences in tolerance between gaming and gambling. Gambling tolerance often involves increasing bet sizes for emotional arousal, linked to neurobiological and cognitive factors. Gaming tolerance, however, reflects extended time spent playing to achieve satisfaction, driven by motivations like social interaction and immersion. Applying gambling-derived diagnostic criteria to gaming behaviours risks misdiagnosis, ineffective interventions, and stigmatization. This study emphasizes the need for nuanced approaches to understanding and addressing problematic gaming and gambling behaviours, aiming to improve diagnostic accuracy, interventions, and support systems.

Keywords

Gaming behaviour, tolerance, internet gaming disorder, gaming and gambling convergence

EXTENDED ABSTRACT

Extended Abstract

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Digital games have become one of the most influential media products of our time, with far-reaching socio-cultural, economic, and psychological impacts. Continuous technological advancements have expanded the scope, accessibility, and appeal of gaming, fostering diverse experiences for recreational and competitive engagement. While gaming is associated with entertainment, social connection, and cognitive benefits (McClain, 2024), it can also lead to problematic consumption patterns. Internet Gaming Disorder (IGD), first included in the appendix in the DSM-5 in 2013, reflects growing concerns about excessive gaming behaviours and their potential harm (American Psychiatric Association, 2013).

The convergence of gaming and gambling has further blurred the distinction between these activities. Gambling-like elements, such as loot boxes, microtransactions, and esports betting, have become pervasive in gaming, raising questions about whether gambling-derived diagnostic frameworks are appropriate for assessing gaming-related harms (Delfabbro & King, 2022; Oksanen et al., 2024). Although gaming and gambling share structural similarities, significant differences exist in the motivations, cultures, and behaviours surrounding these activities. Central to the evaluation of problematic behaviours in both domains is the construct of tolerance, which manifests differently in gaming and gambling, necessitating a more nuanced understanding.

Tolerance in Gambling

In gambling, tolerance typically involves escalating bet sizes or frequency to achieve the same emotional arousal or excitement. This escalation is often linked to neurobiological adaptations akin to substance-based addictions, where individuals increase their behaviour to maintain desired emotional states. For pathological gamblers, tolerance can lead to progressively risky behaviours, such as higher financial stakes, which exacerbate the potential for harm. However, the increase in betting is not purely physiological. Cognitive factors, such as beliefs about winning or recouping losses, play a significant role. Gamblers may perceive larger bets as a strategy for securing rewards or recovering losses, highlighting the psychological complexity of gambling tolerance (Griffiths, 2012).

Tolerance in Gaming

In contrast, tolerance in Internet Gaming Disorder (IGD) involves an increasing amount of time spent gaming to maintain gratification, rather than escalating stakes or intensity (American Psychiatric Association, 2013). The DSM-5 characterizes this as a growing need to engage in gaming activities, driven by diverse motivations like social interaction, immersion, and novelty-seeking. Unlike gambling, gaming tolerance does not involve financial risk but reflects the complex interplay of social, emotional, and psychological reinforcers. Research suggests that gaming tolerance arises less from physiological cravings and more from factors like maintaining relationships in online communities, achieving in-game goals, and experiencing flow states. This multifaceted nature underscores the limitations of applying gambling-derived criteria to gaming-related behaviours (King et al., 2017).

Theoretical and Practical Implications

The misapplication of gambling-based diagnostic criteria, such as tolerance, to gaming behaviours carries significant implications. While these constructs are relevant for understanding problematic gaming, their distinct manifestations demand tailored approaches to assessment and intervention (King et al., 2017). First, equating gaming behaviours with gambling risks oversimplifying the nature of problematic gaming. Unlike gambling, which involves immediate financial stakes and losses, gaming is typically driven by non-monetary rewards and prolonged engagement. This misunderstanding can result in theoretical inaccuracies and ineffective interventions (Puerta-Cortes et al., 2017).

Second, the misapplication of diagnostic tools risks obscuring the diverse nature of gaming motivations. Gaming encompasses a broad spectrum of experiences, from competitive play to social connection. Interventions that fail to address these nuances may lack efficacy and relevance for individuals. Third, inappropriate diagnostic frameworks may lead to incorrect diagnoses and ineffective treatments. For example, interventions targeting financial behaviours, such as those used for gambling disorders, may not be relevant for gaming-related issues, which are often shaped by social and emotional factors. Finally, stigmatizing individuals with problematic gaming behaviours by labelling them as “addicted” based on gambling-derived criteria may create mistrust between affected individuals and support systems. This mistrust can deter individuals from seeking help, further exacerbating the consequences of problematic gaming.

Conclusion

This study highlights the importance of distinguishing between gaming and gambling behaviours when assessing problematic consumption. While tolerance is critical constructs in both domains, their distinct manifestations underscore the need for diagnostic criteria that reflect the unique characteristics of gaming. A more nuanced understanding of gaming tolerance can improve theoretical models, enhance clinical practices, and reduce stigma associated with gaming-related harms. By addressing these differences, researchers and practitioners can develop targeted strategies to better support individuals engaging in gaming and gambling behaviours.

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