

Internet Gaming Addiction: Disorder or Moral Panic?

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As researchers (and parents), we often hear other parents complain that their children are “addicted” to video games. They will note, with concern, that their child spends too much time playing *Call of Duty* or logged onto the *Xbox* and not enough time outside. Although some scholars acknowledge the potential for some video game players to engage in pathological use (1–4), many have expressed concern that video games are currently in a cycle of “moral panic” common to all new media, and the potential for exaggeration of a real but uncommon problem should be carefully guarded against (5–9). Perhaps with these cautionary notes in mind, the American Psychiatric Association has thus far taken a conservative approach to proposing specific new diagnoses for Internet gaming disorder in DSM-5 (10). To address the validity of this proposed diagnostic category, Przybylski et al. (11), in this issue of the *Journal*, present the first large-scale preregistered study that examines Internet gaming disorder diagnostic criteria, prevalence, and relationship with social, physical, and mental health.

In this research, almost 19,000 participants from the United States, the United Kingdom, Canada, and Germany completed a checklist of symptoms that can be used to diagnose Internet gaming disorder. These items represent the nine symptoms proposed by DSM-5 to diagnose symptoms of this disorder: preoccupation (spent too much time thinking about games), withdrawal (felt moody or anxious when unable to play), tolerance (increased playtime to keep excitement high), inability to reduce playing (felt that I should play less but could not), give up other activities (reduced or lost interest in other activities), continue despite problems (kept playing even though it caused problems), deceive (keep others from knowing how much I play), escape mood (played to escape uncomfortable feelings), and risk (risked friends or opportunities due to games). Using DSM-5 recommendations, participants were diagnosed with Internet gaming disorder if they endorsed five or more of the symptoms.

One important assumption clinicians and researchers make when using such a list of symptoms to make a diagnosis is that these symptoms equally contribute toward the diagnosis. This might at first appear problematic when one examines the items used to diagnosis this disorder. For example, it seems to make sense that individuals who lose their job or personal relationship because they cannot stop playing a video game (i.e., continue despite problems) might have an issue with this media. However, this appears to be fundamentally different from a person who plays a game after having a tough day at work (i.e., escape mood) or who gives up other activities to play video games (i.e., give up

other activities). Such items seem to relate to just about any hobby a person might enjoy. To test the assumption that all items equally contribute toward the same construct, these scholars applied a factor model with equal factor loadings and dichotomous outcomes. Impressively, this Rasch model fit the data extremely well. Furthermore, equal factor loadings were also found across gender and across different countries. Such findings suggest that the list of behaviors employed by Przybylski et al. possess good psychometric properties. In effect, there is evidence that they measure the same basic construct. But is this construct indicative of pathology?

One reason it is important to find a “gold standard” for diagnosing Internet gaming disorder is because, to date, there have been at least 18 different ways researchers have operationalized Internet gaming disorder (12). This is problematic because these different methodologies have produced prevalence rates of Internet gaming disorder ranging from almost zero to a high of 45%. However, even with all this variability in prevalence rates, one recent meta-analysis found that most studies seem to suggest that around 3% of people who play video games are at risk for developing this disorder (13).

Given that the majority of participants in the Przybylski et al. study had recently played an Internet-based video game, it was somewhat surprising that approximately 65% reported that they had no symptoms associated with Internet gaming disorder. Similar to what was found in the previous meta-analysis (3.1%) (13), 2.4% of the sample endorsed at least five behaviors used by the DSM to indicate problematic gaming. However, those who also reported feelings of distress due to gaming accounted for only between 0.3% and 1% of the sample. Using the same sample, these scholars were able to compare the prevalence rates of Internet gaming disorder to the only other behavioral addiction in the DSM, gambling. Findings indicated that the prevalence of Internet gaming disorder was lower among people who played a video game in the last year than the prevalence of gambling disorder among people who had engaged in any form of gambling in the past year.

These results seem to indicate that Internet gaming disorder has an extremely low period prevalence rate (less than

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1%) and is less likely to be expressed by gamers than a gambling disorder is to be expressed by a gambler. Of course, this does not necessarily mean that it is not an important condition to consider. Fortunately, Przybylski et al. also assessed the clinical impact of Internet gaming disorder by measuring participants' mental, physical, and social health. Contrary to the popular belief that Internet gaming disorder is related to poorer health, this large-scale study found that those meeting the criteria for diagnosis of Internet gaming disorder did not display any differences in terms of behavioral or clinical effects. In fact, the biggest difference found was that those who were diagnosed as having the disorder simply played more video games than other individuals.

Arguably, findings from this study suggest that the currently used symptoms of Internet gaming disorder employed by DSM-5's proposed category are neither sensitive to nor specific to actual pathology. Although prevalence rates of individuals endorsing the Internet gaming disorder criteria were very low, they were still far higher than those experiencing distress or other problems, suggesting a high type I error rate for the proposed category. Or put simply, Internet gaming disorder continues to risk pathologizing normal behaviors given the inclusion of too many "symptoms" that do not indicate pathology.

It further remains unclear why the DSM-5 includes Internet gaming disorder as a proposed category, but not other behaviors (sex, work, exercise, eating, etc.), which may be "addictive." Current data suggest that the proposed Internet gaming disorder category is a poor indicator of actual problems. Therefore, its use in clinical settings, as presently delineated, may ultimately cause more harm than good.

This important study suggests that video game addiction might be a real thing, but it is not the epidemic that some have made it out to be. Nor is it comparable to addiction to alcohol, methamphetamines, or even gambling. Although many people incorrectly blame video games for producing problems in people's lives, this study suggests that having Internet gaming disorder, at least using the DSM's current symptomatology, is not related to having psychological, social, or physical health issues. For almost all kids and young adults, video games will be a normal part of their development. The

overwhelming majority of people appear to be able to play video games while still balancing a productive work schedule and active social life.

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