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## Internet Addiction Disorder and Internet Gaming Disorder are Not the Same

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### Internet Addiction and Internet Gaming Addiction are Not the Same

Over the last 15 years, research into various online addictions has greatly increased [1]. Alongside this, there have been scholarly debates about whether internet addiction really exists. Some may argue that because internet use does not involve the ingestion of a psychoactive substance, then it should not be considered a genuine addictive behavior. However, the latest (fifth) edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [2] re-classified 'Gambling Disorder' as an addiction disorder rather than a disorder of impulse control as it was in the past. The implications of this reclassification are potentially far-reaching. The most significant implication is that if an activity that does not involve the consumption of intoxicants (i.e., gambling) can be a genuine addiction accepted by the psychiatric and medical community, there is no theoretical reason as to why other problematic and habitual behaviors (e.g., shopping, work, exercise, sex, video gaming, etc.) cannot be classed as a bona fide addiction.

Even among scholars who believe internet addiction exists, there have been debates in the field about whether researchers should study generalized internet addiction (i.e., the totality of all online activities) and/or specific addictions on the internet such as internet gambling, internet gaming and internet sex [3,4]. Since the late 1990s, Griffiths [4,5] has constantly argued that there is a fundamental difference between addictions on the internet, and addictions to the internet. He argued that the overwhelming majority of individuals that were allegedly addicted to the internet were not internet addicts but were individuals that used the medium of the internet as a vehicle for other addictions. More specifically, he argued that internet gambling addicts and internet gaming addicts were not internet addicts but were gambling and gaming addicts using the convenience and ubiquity of the internet to gamble or play video games [4].

Prior to the publication of the latest DSM-5 [2], there had also been debates as to whether 'internet addiction' should be introduced into the text as a separate disorder [6-8]. Following these debates, the Substance Use Disorder Work Group (SUDWG) recommended that the DSM-5 include a sub-type of problematic internet use (i.e., internet gaming disorder [IGD]) in Section 3 ('Emerging Measures and Models') as an area that needed future research before being included in future editions of the DSM [7]. However, far from clarifying the debates surrounding generalized versus specific internet use disorders, the section of the DSM-5 discussing IGD noted that:

"There are no well-researched subtypes for Internet gaming disorder to date. Internet gaming disorder most often involves specific Internet games, but it could involve non-Internet computerized games as well, although these have been less researched. It is likely that preferred games will vary over time as new games are developed and

popularized, and it is unclear if behaviors and consequence associated with Internet gaming disorder vary by game type...Internet gaming disorder has significant public health importance, and additional research may eventually lead to evidence that Internet gaming disorder (also commonly referred to as Internet use disorder, Internet addiction, or gaming addiction) has merit as an independent disorder" (p.796).

In light of what has been already highlighted in previous research [9,10], two immediate problematic issues arise from these assertions. Firstly, IGD is clearly seen as synonymous with internet addiction as the text claims that internet addiction and internet use disorder are simply other names for IGD. Secondly – and somewhat confusingly – it is asserted that IGD (which is by definition internet-based) can also include offline gaming disorders.

With regards to the first assertion, internet addiction and internet gaming addiction are not the same and recent empirical research clearly shows that to be the case. For instance, Király and colleagues [11] examined the interrelationship and the overlap between internet use disorder (IAD) and IGD in terms of (amongst other variables) gender, and time spent using the internet and/or online gaming, and preferred online activities. They collected their data from a nationally representative sample of over 2,000 adolescents. They found that IGD was much more strongly associated with being male, and that IAD was positively associated with online chatting, online gaming, and social networking while IGD was only associated with online gaming. The authors argued that IGD appears to be a conceptually different behavior than internet use disorder and that their data supported the notion that IAD and IGD are separate nosological entities. In another recent cross-cultural study that included 636 participants from China, Taiwan, Sweden, and Germany [12] the authors examined whether it was meaningful to distinguish between generalized internet addiction and online gaming addiction – conceptually framed as specific internet addiction. They found strong empirical evidence suggesting that such phenomena should be considered separately as the two constructs did not entirely overlap. A further complicating factor is that many researchers have used the IAT [13-15] or other non-validated modified versions of this test [16,17] to assess online gaming addiction. This may have been one of the reasons as to why the DSM-5 asserted that IGD and IAD are the same disorder.

The second assertion that IGD can include offline video gaming is both baffling and confusing. Some researchers consider video games as the starting point for examining the characteristics of gaming disorder [10,18], while others consider the internet as the main platform that unites different addictive internet activities, including online games [19,20]. For instance, Griffiths [21] has argued that although all addictions have particular and idiosyncratic characteristics, they share more commonalities than differences (i.e., salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse), and likely reflect a common etiology of addictive behavior. For him,

IGD is clearly a sub-type of video game addiction. Similarly, Porter and colleagues [22] do not differentiate between problematic video game use and problematic online game use. They conceptualized problematic video game use as excessive use of one or more video games resulting in a preoccupation with and a loss of control over playing video games, and various negative psychosocial and/or physical consequences. For Young and colleagues [20], 'cyber-sexual addiction', 'cyber-relationship addiction', 'net compulsions (i.e., obsessive online gambling, shopping, or trading), 'information overload', and 'computer addiction' (i.e., obsessive computer game playing) are all types of internet addiction. However, many would argue that these – if they are addictions – are addictions on the internet, not to it. The internet is a medium and it is a situational characteristic. The fact that the medium might enhance addictiveness or problematic behavior does not necessarily make it a sub-type of internet addiction.

However, recent studies [23,24] have made an effort to integrate both approaches. For instance, Kim and Kim [24] claim that neither the first nor the second approach adequately captures the unique features of Massively Multiplayer Online Role-Playing Games (MMORPGs), and argue that an integrated approach is a necessity. More specifically they argue that: "Internet users are no more addicted to the Internet than alcoholics are addicted to bottles" (p. 389). The internet is just a channel through which individuals may access whatever content they want (e.g., gambling, shopping, chatting, sex). On the other hand, online games differ from traditional standalone games, such as offline video games, in important aspects such as the social dimension or the role-playing dimension that allow interaction with other real players. Consequently, it could be argued that IGD can either be viewed as a specific type of video game addiction, or as a variant of internet addiction, or as an independent diagnosis [12]. However, the idea that IGD can include offline gaming disorders does little for clarity or conceptualization.

Finally, it is also worth mentioning that there are some problematic online behaviors that could be called internet addictions as they can only take place online. The most obvious activity that fulfills this criterion is social networking as it is a 'pure' online activity and does not and cannot take place offline [25]. Other activities such as gambling, gaming, and shopping can still be engaged in offline (as gamblers can go to a gambling venue, gamers can play a standalone console game, shoppers can go to a retail outlet). However, those engaged in social networking would not (if unable to access the internet) walk into a big room of people and start chatting to them all. However, even if social networking addiction is a genuine internet addiction, social networking itself is still a specific online application and could still be considered an addiction on the internet, rather than to it.

Based on recent empirical evidence, internet gaming disorder (or any of the alternate names used to describe problematic gaming) is not the same as internet addiction disorder. The gaming studies field needs conceptual clarity but as demonstrated, the DSM-5 itself is both misleading and misguided when it comes to the issue of internet gaming disorder.

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