Amiya K Barik[1], Rajeev Chauhan[1], Ashwini Reddy[1] and Narender Kaloria[1]

[1]Dept. of Anaesthesia and Intensive Care, Postgraduate Institute of Medical Education and Research, Chandigarh, India.

Address for correspondence:

Ashwini Reddy, Dept. of Anaesthesia and Intensive Care, Postgraduate Institute of Medical Education and Research, Sector 12, Chandigarh 160012, India.
E-mail: ashreddy02@gmail.com

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References

1. Sanacora G and Katz R. Ketamine: A review for clinicians. *Focus (Am Psychiatr Publ)* 2018;16(3):243–250.
2. Walsh Z, Mollaahmetoglu OM, Rootman J, et al. Ketamine for the treatment of mental health and substance use disorders: Comprehensive systematic review. *BJPsych Open* 2021;8(1):e19.
3. Mion G and Villevieille T. Ketamine pharmacology: An update (pharmacodynamics and molecular aspects, recent findings). *CNS Neurosci Ther* 2013;19(6): 370–380.
4. Short B, Fong J, Galvez V, et al. Side-effects associated with ketamine use in depression: A systematic review. *Lancet Psychiatry* 2018;5(1):65–78.
5. Schak KM, Vande Voort JL, Johnson EK, et al. Potential risks of poorly monitored ketamine use in depression treatment. *Am J Psychiatry* 2016;173(3): 215–218.
6. Sanacora G, Frye MA, McDonald W, et al. A consensus statement on the use of ketamine in the treatment of mood disorders. *JAMA Psychiatry* 2017;74(4):399–405.
7. Swainson J, McGirr A, Blier P, et al. The Canadian network for mood and anxiety treatments (CANMAT) task force recommendations for the use of racemic ketamine in adults with major depressive disorder: Recommandations du groupe de travail du réseau Canadien pour les traitements de L'humeur et de L'anxiété (Canmat) concernant L'utilisation de la kétamine racémique chez les adultes souffrant de trouble dépressif majeur. *Can J Psychiatry* 2021;66(2):113–125.
8. Bylund W, Delahanty L, and Cooper M. The case of ketamine allergy. *Clin Pract Cases Emerg Med* 2017;1(4):323–325.

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Towards a Comprehensive Classificatory System for Problematic Internet Use: A Path Forward

To the Editor,

The Internet has become an integral part of everyday life. Globally, the number of people using the Internet has grown from 37 million in the pre-COVID era in 2019 to over 51 million as of April 2023.[1] A plausible explanation for the rise can be attributed to its role in coping with the high levels of psychological distress caused by the pandemic.[2] Problematic Internet Use is not limited to "Internet gaming disorder" (IGD), in fact, several other Internet-based activities, that is, social networking, pornography use, shopping, and gambling, have been identified as potentially "addictive" and eventually high-risk.

The Diagnostic and Statistical Manual, 5th ed. (DSM-5) gave initial attention to IGD with the inclusion of a preliminary description, clinical symptoms, and a potential threshold for diagnosis, that is, at least five of the nine symptoms from preoccupation, tolerance, withdrawal, loss of control, loss of interest in other activities, psychosocial problems, deception, escape and work or social neglect.[3] Later, the International Classification of Diseases, 11th ed. (ICD-11) included a formal Gaming Disorder (GD) diagnosis with three core symptoms: loss of control of gaming habits, heightened priority to gaming, and continued or increased gaming despite negative consequences.[4] There is a minor variation between the two models, with DSM-5 being more specific regarding the nine IGD criteria while ICD-11 adopting a more general description of the condition, omitting some specific criteria like preoccupation, deception, escape, and tolerance.[5] However, the manuals mutually agree on the experience of significant impairment or distress for a clinical diagnosis of the disorder, irrespective of the medium of gaming, for about a year.[3–5]

Here, it is worth mentioning that the initial proposal for including internet-related disorders in the DSM-5 consisted of various subtypes, including instant messaging, social networking, pornography use, shopping, and so on. However, the manual did not incorporate subtypes except gaming due to limited research support for other high-risk behaviors.[6]

Problematic Internet use has been studied using various self-report tools, most based on the diagnostic standards for pathological gambling, substance abuse, or, more recently, IGD.[7–9] Post-2013, several researchers have highlighted the usefulness of DSM-5 in assessing various high-risk Internet use behaviors for both clinical and

research purposes. The manual has been widely referenced for identifying high-risk behaviors like problematic social networking and developing new diagnostic tools.[7] One study indicated that the manual had good diagnostic accuracy in distinguishing problematic from non-problematic users. Moreover, a significant association between the DSM-5 IGD criteria and "Internet Addiction" (IA) indicates IGD and IA to be unidimensional.[8] Rehbein et al. adapted a screening instrument for video gaming for adolescents using the DSM-5 IGD criteria; adolescents with a higher score on this instrument reported more sleep disturbances and academic impairments.[9]

Several researchers raise concerns about the American Psychological Association's decision to narrow the diagnosis from a broader concept of "Internet Use Disorder (IUD)" to a particular diagnosis of IGD.[9,10] This is because IGD neglects the comprehensive theories by Young (IA), Brand (I-PACE), and Davis (the cognitive-behavioral model of Pathological Internet Use) among the most pertinent ones.[11,12] Studies employing the generalized models of problematic internet use have shown a firm fit and successfully explained significant variability in online behaviors.[13,14] Also, recent debates argue that the threshold for IGD diagnosis, that is, *five out of nine symptoms*, may be insufficient as there is upcoming evidence for other contributing but unidentified parameters across various age groups.[7]

It is found that while having acceptable validity and reliability indices, the assessments based on the current DSM-5 criterion lack criterion validity, making them unfit to distinguish between everyday and problematic internet use.[14] An illustrative case is the scrutinization of Young's IA Test, based on the DSM-IV pathological gambling criteria, for its factor structure and use of outdated terminologies.[15] Discrepancies in the theoretical models and diagnostic standards upon which many self-report questionnaires are founded may have resulted in them assessing and detecting constructs that only partially overlap, making comparisons between studies complicated and unreliable.

Regarding research methods, most studies on general or specific IUDs have been survey-based and/or cross-sectional, emphasizing the population of young adults and adolescents, resulting in a skewed quality and nature of research findings. Hence, more rigorous longitudinal studies, including clinical and control groups of all developmental phases, are required to explore age-related differences. It will also help to provide some insight into the course of the disorder. Cross-cultural comparisons between developed and developing countries are necessary to understand the influence of global psychosocial factors and design effective public health strategies and management approaches. Furthermore, exploring the relationship between IUD (including IGD) and other related disorders is crucial for uncovering the underlying mechanisms and potential shared vulnerabilities. Other pertinent issues include uncertainty about whether IUDs should be considered a disorder or overindulged behavior, an appropriate diagnostic criterion for general and specific IUDs, and recognition of various risky behaviors (besides gaming).

Consequently, debates around reconceptualizing IUDs are warranted in research and further revision of classificatory systems. A practical suggestion would be to reconsider IUDs for inclusion in the diagnostic manuals, thereby addressing the excessive general internet use behaviors supplemented with specifiers (e.g., gaming, social networking, etc.), a format similar to other listed disorders in the DSM that utilize specifiers to elucidate their nature. One may contend that diagnosing IUD with its specifiers mentioned above may bring about a wave of "medicalization of daily life activities." However, research has concluded more beneficial impacts of increasing awareness about IGD among adolescents, preventing their risky gaming behaviors and maladaptive cognitions related to Internet gaming.[16] Hence, the influence of diagnostic manuals like ICD and DSM over nationwide prevention and treatment policies cannot be denied. A non-stigmatizing and sensitive approach from health workers is expected to increase the benefits of these newer proposed diagnoses.

A formal diagnosis like IUD will provide a more inclusive and comprehensive diagnosis of internet abuse, be more in line with existing frameworks and theories, and serve as a common ground for assessment, diagnosis, and future research. This step will help develop a standardized framework that comprehensively guides healthcare professionals in addressing IUDs, considering the diverse internet activities and their associated challenges.

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ORCID iDs

Shweta Singh https://orcid.org/0000-0001-7469-5114
Kriti Sapra https://orcid.org/0009-0000-2430-8868

Shweta Singh[1], Kriti Sapra[1], Pratishtha Pal[1], Prakhar Bhanu[2] and Kushagra Bhanu[3]

[1]Dept. of Psychiatry, King George's Medical University, Lucknow, Uttar Pradesh, India. [2]SPA Bhopal, Bhopal, Madhya Pradesh, India. [3]University of Delhi, New Delhi, India.

Address for correspondence:

Shweta Singh, Dept. of Psychiatry, King George's Medical University, Lucknow, Uttar Pradesh 226003, India.
E-mail: shwetabhanu3@gmail.com

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References

1. Petrosyan A. *Worldwide digital population 2023*. Statista. https://www.statista.com/statistics/617136/digital-population-worldwide/
2. Brand M, Young KS, Laier C, et al. Integrating psychological and neurobiological considerations regarding the development and maintenance of specific Internet-use disorders: An Interaction of Person-Affect-Cognition-Execution (I-PACE) model. *Neurosci Biobehav Rev* 2016; 71: 252–266.
3. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders.* 5th ed. Arlington, VA, 2013.
4. World Health Organization. ICD-11 revision. https://icd.who.int/en 2019.
5. Griffiths MD, van Rooij AJ, Kardefelt-Winther D, et al. Working towards an

international consensus on criteria for assessing internet gaming disorder: A critical commentary on Petry et al. (2014). *Addiction* 2016; 111(1): 167-175.
6. Yau YH, Crowley MJ, Mayes LC, et al. Are Internet use and video-game-playing addictive behaviors? Biological, clinical and public health implications for youths and adults. *Minerva Psichiatr* 2012; 53: 153-170.
7. van den Eijnden, RJJM, Lemmens JS, and Valkenburg PM. The social media disorder scale: Validity and psychometric properties. *Comput Hum Behav* 2016; 61: 478-487.
8. Besser B, Loerbroks L, Bischof G, et al. Performance of the DSM-5-based criteria for Internet addiction: A factor analytical examination of three samples. *J Behav Addict* 2019; 8(2): 288–294.
9. Rehbein F, Kliem S, Baier D, et al. Prevalence of internet gaming disorder in German adolescents: Diagnostic contribution of the nine DSM-5 criteria in a statewide representative sample. *Addiction* 2015; 110(5): 842-851.
10. Griffiths MD, King DL, and Demetrovics Z. DSM-5 internet gaming disorder needs a unified approach to assessment. *Neuropsychiatry* 2014; 4: 1–4.
11. Brand M, Young KS, and Laier C. Prefrontal control and internet addiction: A theoretical model and review of neuropsychological and neuroimaging findings. *Front Hum Neurosci* 2014; 8: 375.
12. Davis RA. A cognitive-behavioural model of pathological Internet use. *Comput Hum Behav* 2001; 17: 187–195.
13. Haagsma MC, Caplan SE, Peters O, et al. A cognitive-behavioral model of problematic online gaming in adolescents aged 12–22years. *Comput Hum Behav* 2013; 29(1): 202–209.
14. Moreau A, Laconi S, Delfour M, et al. Psychopathological profiles of adolescent and young adult problematic Facebook users. *Comput Hum Behav* 2015; 44(1): 64–69.
15. Moretta T, Buodo G, Demetrovics Z, et al. Tracing 20 years of research on problematic use of the Internet and social media: Theoretical models, assessment tools, and an agenda for future work. *Compr Psychiatry* 2022; 112: 152286.
16. Yu Y, Li J-B, and Lau, JTF. Awareness and potential impacts of the medicalization of Internet gaming disorder: Cross-sectional survey among adolescents in China. *J Med Internet Res* 2021; 23(2): e22393.

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