

Accepted Manuscript

A new era for gaming disorder research: Time to shift from consensus to consistency

Halley M. Pontes, Mark D. Griffiths



PII: S0306-4603(19)30677-X
DOI: <https://doi.org/10.1016/j.addbeh.2019.106059>
Article Number: 106059
Reference: AB 106059
To appear in: *Addictive Behaviors*
Received date: 29 May 2019
Revised date: 16 July 2019
Accepted date: 16 July 2019

Please cite this article as: H.M. Pontes and M.D. Griffiths, A new era for gaming disorder research: Time to shift from consensus to consistency, *Addictive Behaviors*, <https://doi.org/10.1016/j.addbeh.2019.106059>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Title: A new era for Gaming Disorder research: Time to shift from consensus to consistency

Authors:

Halley M. Pontes¹

Mark D. Griffiths²

¹ Division of Psychology, School of Medicine, University of Tasmania, Launceston, Australia

² International Gaming Research Unit, Psychology Department Nottingham Trent University,
Nottingham, United Kingdom

Corresponding Author:

Dr. Halley M. Pontes

Address: University of Tasmania, Division of Psychology, Private Bag 1342, Launceston TAS
7250 Australia

Phone number: +61 363 243 168

Email: contactme@halleypontes.com

Funding: None

Conflict of Interest: The authors declare that they have no conflict of interest.

The release of the first commercial videogames occurred in the early 1970s and it took approximately 10 years for the first reports of what we would now term ‘gaming disorder’ (GD) to emerge in the scientific literature (Ross et al., 1982). More recently, research on GD has received much public and scientific scrutiny due to the increasing importance given to this condition by official medical/psychiatric organizations (Pontes & Griffiths, 2014). This led to three key milestones in the field.

The first key milestone for GD research was the 2013 publication of the most recent (fifth) edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) by the American Psychiatric Association (APA) including ‘Internet Gaming Disorder’ (IGD) as a tentative disorder comprising nine specific clinical criteria (APA, 2013). Although this first milestone helped move the field further in terms of conceptualization and assessment, the debate surrounding the legitimacy of IGD further intensified when the second key milestone for GD occurred in 2016 when the World Health Organization (WHO) include GD in the beta draft of the 11th edition of The International Classification of Diseases (ICD-11) (Aarseth et al., 2016).

As the support for GD from key medical bodies and numerous scholars worldwide continued to increase, the field witnessed a fierce scholarly debate regarding the legitimacy of GD following the publication of both the DSM-5 and the beta draft of the ICD-11. Despite the fact that these debates fractured the field and further divided opinions, many psychologists, psychiatrists and clinicians who actually studied and treated disordered gamers argued in favor of recognizing GD as an official addictive disorder (Griffiths et al., 2017) while others (mainly from the media psychology field) argued against it due to their belief that there was a weak scientific basis for GD as a mental health disorder (van Rooij et al., 2018).

Finally, the third key milestone for the field happened on May 25, 2019 at the 72nd World Health Assembly which culminated in the historic and long-awaited decision by the WHO recognizing GD as a mental health disorder. According to the WHO, GD is defined as a problematic behavioral pattern of gaming behavior characterized by impaired control over the activity, increasing priority to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences. The WHO further specifies that GD symptoms must be assessed within a 12-

month timeframe and be of sufficient severity to result in significant impairment across different domains including personal, family, social, educational, occupational and/or other areas of functioning (WHO, 2018).

The decision made by the WHO to recognize GD represents the culmination of scientific effort and is likely to result in several future ramifications. Nevertheless, we would invite readers to consider a few important issues concerning this decision. Although previous scholars reasonably argued that creating new psychiatric conditions may generate further social stigma (Billieux et al., 2015), it is unclear whether this will occur in the context of GD because society has indeed shown the ability to assimilate the fact that healthy and unhealthy behaviors can occur even when using specific legally commercialized substances (e.g., nicotine, alcohol) and activities (e.g., gambling) capable of producing dependence. Thus, given the very low prevalence rates of GD as reported in robust studies using large and representative samples – often below 5% (see Wu, Chen, Tong, Yu, & Lau, 2018) – there is no reason to assume that the same assimilation process will not occur in the context of GD whereby society will assimilate the fact that the overwhelming majority of gamers are healthy gamers as opposed to disordered gamers. Furthermore, because GD is now a *bona fide* addictive disorder alongside Gambling Disorder, it does not necessarily mean that gaming is an inherently detrimental activity. Numerous researchers conducting research on GD recognize the beneficial outcomes of gaming and how this activity is harmless and even beneficial in most cases (e.g., Griffiths, 2019).

Nonetheless, the WHO's decision will now enable researchers to resolve previous conceptual and assessment conundrums (Kuss et al., 2017) by helping practitioners effectively distinguish between healthy, unhealthy, and hazardous gaming when applying the established set of diagnostic criteria for GD developed by the WHO. It is also important to consider how the WHO's decision may equally impact areas related to treatment and prevention of GD by improving accessibility to professional health care services, including the potential financial benefit for treatment costs to be covered by health insurance companies, and potentially assisting the development of robust and evidence-based standardized treatment protocols using the diagnostic criteria developed by the WHO. These are potential benefits that we believe overshadow debates concerning the legitimacy of GD because preventing and treating mental

health disorders is one of the main priorities of health scientists and is a key issue in public health research (Rumpf et al., 2018).

Indeed, the recognition of GD as a mental health disorder represents only the beginning of a new era offering significant opportunities for researchers and mental health practitioners. Researchers can now move beyond debating whether GD exists or not and invest their efforts in understanding key etiological and risk factors, clinical course, related comorbidities, and negative outcomes associated with GD, further helping society broaden its understanding about GD. It is clear that the formal recognition of GD by the WHO renders the debate around achieving an international consensus on GD unnecessary (Griffiths et al., 2016; Petry et al., 2014). We end with some recommendations to take the field forward as there is a need:

- To move beyond consensus to a consistency perspective by generating research on GD based on the principles of open science focusing on maximizing transparency and reproducibility.
- To distinguish between gaming disorder and hazardous gaming as well as the nuances between addiction vs. high engagement.
- For further empirical studies using clinical samples to refine existing GD measures and to assist in the development of test norms and a ‘gold standard’.
- For ‘big data’ research using player tracking data by working with the video gaming industry (as has been happening in the gambling studies field where behavioral analytics are being used to identify problem gamblers and intervene with bespoke prevention tools).
- For the gaming industry to take their social responsibility seriously and provide a duty of care that is now becoming standard in the gambling industry in relation to player protection and harm minimization.

References

- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Arlington, VA: Author.
- Aarseth, E., Bean, A. M., Boonen, H., Colder, C. M., Coulson, M., Das, D., . . . Van Rooij, A. J. (2016). Scholars' open debate paper on the World Health Organization ICD-11 Gaming Disorder proposal. *Journal of Behavioral Addictions, 6*(3), 267-270. doi:10.1556/2006.5.2016.088
- Billieux, J., Schimmenti, A., Khazaal, Y., Maurage, P., & Heeren, A. (2015). Are we overpathologizing everyday life? A tenable blueprint for behavioral addiction research. *Journal of Behavioral Addictions, 4*(3), 119-123. doi:10.1556/2006.4.2015.009
- Griffiths, M. D. (2019). The therapeutic and health benefits of playing videogames. In: Attrill-Smith, A., Fullwood, C. Keep, M. & Kuss, D. J. (Eds.). *The Oxford Handbook of Cyberpsychology*. (pp. 485-505). Oxford: Oxford University Press.
- Griffiths, M. D., Kuss, D. J., Lopez-Fernandez, O., & Pontes, H. M. (2017). Problematic gaming exists and is an example of disordered gaming: Commentary on: Scholars' open debate paper on the World Health Organization ICD-11 Gaming Disorder proposal (Aarseth et al.). *Journal of Behavioral Addictions, 6*(3), 296-301. doi:10.1556/2006.6.2017.037
- Griffiths, M. D., Van Rooij, A. J., Kardefelt-Winther, D., Starcevic, V., Király, O., Pallesen, S., . . . Demetrovics, Z. (2016). Working towards an international consensus on criteria for assessing Internet Gaming Disorder: A critical commentary on Petry et al. (2014). *Addiction, 111*(1), 167-175. doi:10.1111/add.13057
- Kuss, D. J., Griffiths, M. D., & Pontes, H. M. (2017). Chaos and confusion in DSM-5 diagnosis of Internet Gaming Disorder: Issues, concerns, and recommendations for clarity in the field. *Journal of Behavioral Addictions, 6*(2), 103-109. doi:10.1556/2006.5.2016.062
- Petry, N. M., Rehbein, F., Gentile, D. A., Lemmens, J. S., Rumpf, H. J., Mößle, T., . . . O'Brien, C. P. (2014). An international consensus for assessing Internet Gaming Disorder using the new DSM-5 approach. *Addiction, 109*(9), 1399-1406. doi:10.1111/add.12457
- Pontes, H. M., & Griffiths, M. D. (2014). Assessment of Internet Gaming Disorder in clinical research: Past and present perspectives. *Clinical Research and Regulatory Affairs, 31*(2-4), 35-48. doi:10.3109/10601333.2014.962748

- Ross, D. R., Finestone, D. H., & Lavin, G. K. (1982). Space Invaders obsession. *The Journal of the American Medical Association*, 248(10), 1177. doi:10.1001/jama.1982.03330100017009
- Rumpf, H. J., Achab, S., Billieux, J., Bowden-Jones, H., Carragher, N., Demetrovics, Z., . . . Poznyak, V. (2018). Including gaming disorder in the ICD-11: The need to do so from a clinical and public health perspective. *Journal of Behavioral Addictions*, 7(3), 556-561. doi:10.1556/2006.7.2018.59
- van Rooij, A. J., Ferguson, C. J., Colder Carras, M., Kardefelt-Winther, D., Shi, J., Aarseth, E., . . . Przybylski, A. K. (2018). A weak scientific basis for gaming disorder: Let us err on the side of caution. *Journal of Behavioral Addictions*, 7(1), 1-9. doi:10.1556/2006.7.2018.19
- World Health Organization (2018). Gaming disorder. Retrieved from: <http://www.who.int/features/qa/gaming-disorder/en/>
- Wu, A. M. S., Chen, J. H., Tong, K. K., Yu, S., & Lau, J. T. F. (2018). Prevalence and associated factors of Internet gaming disorder among community dwelling adults in Macao, China. *Journal of Behavioral Addictions*, 7(1), 62-69. doi:10.1556/2006.7.2018.12