Journal of Behavioral Addictions 7(3), pp. 522–525 (2018)
DOI: 10.1556/2006.7.2018.54
First published online June 13, 2018

Precise estimates of gaming-related harm should guide regulation of gaming

Commentary on: Policy responses to problematic video game use: A systematic review of current measures and future possibilities (Király et al., 2018)

VLADAN STARCEVIC[1]* and JOËL BILLIEUX[2,3]

[1]Department of Psychiatry, Sydney Medical School – Nepean, University of Sydney, Sydney, NSW, Australia
[2]Addictive and Compulsive Behaviours Lab (ACB-Lab), Institute for Health and Behaviour, University of Luxembourg, Esch-sur-Alzette, Luxembourg
[3]Centre for Excessive Gambling, Lausanne University Hospitals (CHUV), Lausanne, Switzerland

(Received: January 15, 2018; revised manuscript received: May 30, 2018; accepted: May 30, 2018)

Regulation of gaming is largely based on the perception of gaming-related harm. This perception varies from one country to another and does not necessarily correspond to the real gaming-related harm. It is argued that there is a crucial need to define and assess domains of this harm in order to introduce policies that regulate gaming. Such policies would ideally be targeted at individuals at risk for problematic gaming and would be based more on educational efforts than on restrictive measures. The role of gaming industry in the regulation of gaming would depend on the more precise estimates of gaming-related harm.

Keywords: Internet gaming disorder, problematic gaming, harm assessment, regulation, policy, prevention

INTRODUCTION

A systematic review by Király et al. (2018) of policy responses to problematic gaming is an important contribution to the literature. It highlights various approaches to the regulation of gaming, explains why most of them have not been effective, and suggests some novel measures that can be adopted in this regard. The article addresses both prevention of problematic gaming and measures to help gamers and others who are affected by problematic gaming. The present commentary will focus on several issues arising from this article.

PERCEPTION OF GAMING-RELATED HARM VERSUS REAL HARM

One of the key functions of every society is to define dangers that threaten its existence or cohesion. The perception of harm associated with dangers determines the action taken against these dangers, but societies differ in terms of what they perceive as potential harms. For example, firearms are universally regarded as dangerous objects, but the harm associated with the possession of firearms is perceived differently in different countries. In countries in which the perception of this harm is high, access to firearms is much more restricted than in countries where it is relatively low. Király et al. (2018) justly point to these social and cultural differences when noting that unlike Western societies, several East Asian countries perceive problematic gaming as a public health threat; as a result, these countries have made more attempts to regulate gaming.

Leaving aside the reasons for different perceptions of threat and harm related to gaming in different countries, one of the key issues is the correspondence between the perceived and real harm. In other words, to what extent does the perceived harm match the real harm? If the perceived harm of gaming is high and matches well the real harm, measures put in place to regulate gaming will be justified. If such a match does not exist and the perceived harm is exaggerated, excessive regulation of gaming may not only be unnecessary, but itself harmful because it might deprive healthy gamers of entertainment or a useful social outlet. On the other hand, if the perceived harm related to the gaming is underestimated, the reluctance to regulate gaming or absence of any regulation in this area would be at least irresponsible and more likely detrimental.

The relationship between perceived and real harm related to gaming is not well understood and is subject to divergent opinions. There is no international consensus on what constitutes gaming-related harm and reliable, high-quality

* Corresponding author: Vladan Starcevic; Department of Psychiatry, Nepean Hospital, PO Box 63, Penrith, NSW 2751; Australia; Phone: +61 2 4734 2585; Fax: +61 2 4734 3343; E-mail: vladan.starcevic@sydney.edu.au

data on this are lacking. Moreover, harm is usually assessed indirectly and somewhat arbitrarily, using proxy measures such as the severity of problematic gaming and severity and type of its negative consequences. Such an evaluation of gaming-related harm only provides a partial picture of the real harm and often does not consider the effects of gaming on non-gamers.

All attempts to regulate gaming have been based on perceived harm or inadequate, indirect measures of harm. Various factors operate in the realm of perceived or poorly defined harm, and this is where different stakeholders and interest groups advance their own agendas. Consequently, gaming companies tend to minimize gaming-related harm, whereas family members of gamers and clinicians tend to maximize it. They both attempt to influence public opinion and policymakers, which amplifies confusion as these efforts make it more difficult to disentangle perceived harm from the real one.

The fact that policy responses to the gaming are largely based on perceived harm related to gaming explains the differences between East Asian and Western countries in terms of the efforts made to regulate gaming. It may also account for the finding that regulation of gaming in East Asian countries has not been particularly effective (e.g., Király et al., 2018). The way forward and a priority are to ascertain the real harm related to gaming and move away from reliance on perceptions, opinions, and proxy measures. This comprehensive estimation of harm has been made in relation to other disorders and problematic behaviors. As an illustration, a recent study designed to comprehensively assess the aggregate burden of harm associated with gambling in Victoria (Australia) reported that 50%, 34%, and 15% of the total harm resulting from gambling could be divided among low-risk, moderate-risk, and problem gamblers, respectively (Browne et al., 2016). Thus, most of the gambling-related harm in this study was unexpectedly associated with low- and moderate-risk gambling, which reflects a higher prevalence of such gambling and has significant implications for the regulation of gambling. A similar measurement of harm is warranted in relation to gaming. Moreover, it is crucial to clearly define domains of harm related to gaming (e.g., interpersonal, emotional, educational, occupational, and physical health) and put figures on them. Only this kind of precision and the resultant better understanding of the actual gaming-related harm can adequately guide policy responses.

IMPLEMENTATION OF GAMING POLICIES

If the analysis of gaming-related harm justifies regulation of gaming, the corresponding policies will need to have a clear purpose. While the general goal of regulation is to minimize harm, policies designed to prevent problematic gaming should represent a different endeavor from those that are used to control the fallout from problematic gaming. These are different approaches and different purposes of regulation, with the present commentary focusing on prevention. Király et al. (2018) list a number of policy measures from which several issues have been extracted.

Non-targeted versus targeted regulation

The current regulation is too broad, as it targets all gamers or all gamers of a certain age, usually children and adolescents. The assumption of such an approach is that all gamers or all underage gamers are at risk to develop problematic gaming patterns without some regulation in place. This erroneous notion is embedded in some of the policies, thereby also sending a wrong message to the broader community.

Gaming policies that aim to prevent problematic gaming would probably be more effective, if they could successfully target individuals who are deemed to be at a high risk of experiencing gaming-related harm. Developing targeted gaming policies is a more difficult task because of a need to define the targets. Linking targets with the notions of high risk and prediction of problematic gaming is a reasonable strategy, but it requires a much greater precision when these are assessed. While problematic gaming has been associated with a variety of variables and predictors, the direction of causation remains unknown because of the paucity of longitudinal, prospective studies. For example, attention-deficit/hyperactivity disorder (ADHD) and problematic gaming have been closely associated (e.g., Paulus, Sinzig, Mayer, Weber, & von Gontard, 2018), but the causal relationship between them, if any, remains uncertain. If prospective research suggests that ADHD predicts problematic gaming or increases the risk of it, this will justify that gaming policies provide specific warnings to individuals with ADHD, along with measures to curb their gaming habits.

Restrictive measures versus education-based approaches

The current policies put too much emphasis on restrictive measures, which mainly entail a limited access to gaming sites, restrictions imposed by parents on their children who seem to play excessively and/or limitations on the amount of time spent gaming. Preventing access to gaming, whether completely or at certain times ("shutdown policy"), is a controversial measure that has not demonstrated an unequivocal, appreciable benefit (Hwang & Park, 2015; Sung, 2014). Moreover, this measure has been criticized because of its punitive elements and is thus debatable from a human rights or children's rights perspective (Kardefelt-Winther, 2017). If an activity is prohibited because of an assumption that it might be dangerous at certain times and under certain circumstances, many ordinary, everyday activities would also need to be prohibited at certain times or in certain situations (e.g., driving at night because of decreased visibility or swimming in the sea because of the potential shark attack). Finally, restrictive measures should only be used if they are backed by evidence that they produce desired outcomes.

The excessive focus on time spent gaming is equally unjustified and rests on a simplistic notion that a large amount of time spent playing games is a sufficient indicator of problematic gaming. Changing this notion has been difficult, because time spent gaming is the most accessible and easily measurable correlate of gaming and because problematic gamers usually do spend an inordinate amount of time playing video games. However, the evidence that "too much" time spent gaming is not necessarily related to

problematic gaming (Király, Tóth, Urbán, Demetrovics, & Maraz, 2017) should increase our confidence when making recommendations that policy responses to gaming do not rely so heavily on the amount of time spent gaming.

Education-based approaches to prevention of problematic gaming should be given more important role and there is some evidence of their effectiveness (Walther, Hanewinkel, & Morgenstern, 2014; Yeun & Han, 2016). These measures could take different forms and be implemented by parents, schools, agencies developed to promote safe gaming, or even gaming companies. Regardless of who carries out education, its common and key ingredient is provision of information about safe and responsible gaming. This includes making gamers aware of the potential problems and dangers and teaching them how to avoid these unwanted effects of gaming and what to do if they do occur. Education-based approaches may have an advantage, because they are more likely to empower gamers and foster their sense of ownership of their gaming choices and habits.

Self-regulation by the gaming industry versus imposing regulation on the gaming industry

The stance taken by the gaming industry in the regulation of gaming has been characterized by relative passivity and ambivalence. This may be due to "poorly defined boundaries of responsibility" and concerns about the consequences of regulation on commercial benefit (King & Delfabbro, 2017). There is little reason to doubt that the gaming industry is driven by profit and that it is more likely than not to override social responsibility concerns, if these clash with profit-making. Therefore, it is unrealistic to expect the gaming industry to voluntarily practice self-regulation and introduce measures that might decrease gaming-related harm at the expense of decreasing the profit. Király et al. (2018) mention increasing the prices of video games and decreasing their addictive potential as examples of measures that are unlikely to be initiated by the gaming industry. If so, should such measures be imposed? These issues are particularly timely now, with an increasing trend of the video games to include elements of gambling (Gainsbury, Russell, King, Delfabbro, & Hing, 2016; King, 2018; Teichert, Gainsbury, & Mühlbach, 2017), thereby increasing gamers' risk-taking behaviors.

The importance of assessing gaming-related harm should be emphasized again. For example, if such an assessment suggests a need to introduce tighter regulation, this would make the gaming industry a "junior partner" vis-à-vis the regulatory bodies. In other words, the gaming industry would then be requested to comply with gaming policies designed by regulatory bodies, regardless of how these policies might affect the gaming industry's balance sheets. This would be analogous to the place of the tobacco and alcohol industry and would reduce or eliminate the current ambiguity about the role of the gaming industry. Regardless of the outcome of an assessment of gaming-related harm, the gaming industry should not be regarded as an adversary, but as an important stakeholder to be engaged in any regulatory process.

CONCLUSIONS

Policy responses to gaming will be useful and effective insofar as they are based on solid data and evidence. Thus far, this has not been the case and regulation of gaming has mostly been a haphazard enterprise. A comprehensive and precise assessment of gaming-associated harm would provide a foundation to inform more sound-gaming policies. Such policies would need to have a clear purpose and they should be better targeted than the current ones and rely more on education than restriction. The role of the gaming industry in the regulation of gaming should be reconsidered in accordance with estimates of gaming-related harm.

Funding sources: No financial support was received for this commentary.

Authors' contribution: Both authors have equally contributed to the content of this commentary.

Conflict of interest: The authors declare no conflict of interest.

Acknowledgements: The authors would like to thank Olivier Simon for his constructive suggestions in the early stages of the preparation of this commentary.

REFERENCES

Browne, M., Langham, E., Rawat, V., Greer, N., Li, E., Rose, J., Rockloff, M., Donaldson, P., Thorne, H., Goodwin, B., Bryden, G., & Best, T. (2016). *Assessing gambling-related harm in Victoria: A public health perspective*. Melbourne, Australia: Victorian Responsible Gambling Foundation.

Gainsbury, S. M., Russell, A. M. T., King, D. L., Delfabbro, P., & Hing, N. (2016). Migration from social casino games to gambling: Motivations and characteristics of gamers who gamble. *Computers in Human Behavior, 63,* 59–67. doi:10.1016/j.chb.2016.05.021

Hwang, I. Y., & Park, J. H. (2015). The impact of government regulations on Korean online game market: A system dynamics approach. *Korean System Dynamics Research, 16*(4), 129–153.

Kardefelt-Winther, D. (2017). *How does the time children spend using digital technology impact their mental well-being, social relationships and physical activity? An evidence-focused literature review*. Innocenti Discussion Paper 2017-02. Florence, Italy: UNICEF Office of Research – Innocenti.

King, D. L. (2018). Predatory monetisation and gambling-like features in video games. *Journal of Behavioral Addictions, 7*(Suppl. 1), 3–4.

King, D. L., & Delfabbro, P. H. (2017). Prevention and policy related to Internet gaming disorder. *Current Addiction Reports, 4*(3), 284–292. doi:10.1007/s40429-017-0157-8

Király, O., Griffiths, M. D., King, D. L., Lee, H.-K., Lee, S.-Y., Bányai, F., Zsila, A., Takacs, Z. K., & Demetrovics, Z. (2018). Policy responses to problematic video game use: A

systematic review of current measures and future possibilities. *Journal of Behavioral Addictions*. Advance online publication. doi:10.1556/2006.6.2017.050

Király, O., Tóth, D., Urbán, R., Demetrovics, Z., & Maraz, A. (2017). Intense video gaming is not essentially problematic. *Psychology of Addictive Behaviors, 31*(7), 807–817. doi:10.1037/adb0000316

Paulus, F. W., Sinzig, J., Mayer, H., Weber, M., & von Gontard, A. (2018). Computer gaming disorder and ADHD in young children – A population-based study. *International Journal of Mental Health and Addiction*. Advance online publication. doi:10.1007/s11469-017-9841-0

Sung, W. (2014). A study on the effect of the policy of online game shutdown on the game time of youth. *Social Science Research Review, 30*(2), 233–256.

Teichert, T., Gainsbury, S. M., & Mühlbach, C. (2017). Positioning of online gambling and gaming products from a consumer perspective: A blurring of perceived boundaries. *Computers in Human Behavior, 75,* 757–765. doi:10.1016/j.chb.2017.06.025

Walther, B., Hanewinkel, R., & Morgenstern, M. (2014). Effects of a brief school-based media literacy intervention on digital media use in adolescents: Cluster randomized controlled trial. *Cyberpsychology, Behavior, and Social Networking, 17*(9), 616–623. doi:10.1089/cyber.2014.0173

Yeun, Y. R., & Han, S. J. (2016). Effects of psychosocial interventions for school-aged children's Internet addiction, self-control and self-esteem: Meta-analysis. *Healthcare Informatics Research, 22*(3), 217–230. doi:10.4258/hir.2016.22.3.217