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Debate: Behavioural addictions and technology use – risk and policy recommendations for problematic online gambling and gaming

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Introduction

Digital technology allows people to connect and share similar interests across geographical and temporal borders. It is convenient, accessible and affordable in the developed world. Despite the many advantages it provides, research suggests that there may be problems associated with excessive use (Kuss, Kristensen, & Lopez-Fernandez, 2020). Two behavioural disorders related to Internet use have been officially recognised as mental health disorders: Gambling Disorder in 2013 by the American Psychiatric Association (APA) and Gaming Disorder in 2019 by the World Health Organization (WHO). This recognises the research and clinical agreement on the requirement and viability of such a diagnosis, which can be considered the 'gold standard'. According to the APA and WHO, both disorders refer to a minimum period of out of control behaviour, where priority is given to the harmful activity over other important social, work and leisure activities, and the behaviour is continued irrespective of the detrimental repercussions. Other technology-mediated behaviours have been suggested to be associated with negative mental health impacts, including the use of social media, smartphones and online pornography. However, none of these have been included in any of the current diagnostic frameworks.

Risk

The prevalence estimates and risk indicators of developing problems associated with excessive technology use differ considerably across countries. Gambling and gaming disorders are overrepresented amongst young adults (youth) and highly correlated with mental health issues (Gainsbury, 2015; Stevens, Dorstyn, Delfabbro, & King, 2020). Up to 96% of those who have had a gambling disorder have at least one other lifetime psychiatric disorder (Leeman & Potenza, 2012), and mental health variables explain 7%-15% of variance in gaming disorder (Andreassen, 2016). For large-scale epidemiological studies of Internet Gaming Disorder (IGD), the prevalence ranges from 0.7% of the general population in Norway to 9.8% of young adolescents in Lithuania (Kuss & Pontes, 2019). Individual (e.g. personality traits; biopsychosocial vulnerability), structural (e.g. particular technology use, use platform) and situational factors (proximal and distal, i.e. gaming/social media

community, cultural context) need to be taken into consideration when evaluating study outcomes.

Policy recommendations

Recommendations for preventing the emergence of problematic technology use and reducing harm include using a multi-stakeholder approach, engaging researchers, clinicians, regulators and government bodies, community organisations and the industry (Swanton et al., 2020). Within the gambling field, it is increasingly accepted that industry and government bodies which provide and profit from the provision of gambling activities have a duty of care, social responsibility and moral obligation to avoid practices that may increase gambling harms and take active steps to prevent and reduce related harms. Similarly, user protection and harm prevention are a clinical and moral obligation for professionals working in gaming and other potentially harmful online activities. To enable informed user choice and behaviour, prevention approaches adopted across countries must be evidencebased, should focus on skill improvement, safeguard users and limit any harms, and assess multiple risky behaviours simultaneously (Throuvala, Griffiths, Rennoldson, & Kuss, 2019). Community and government organisations should be involved in education and awareness campaigns to assist technology users with developing skills and behaviours to be critical of the content they consume and develop safe practices, such as limit setting. An international perspective is of utmost importance because the cultural context plays a major role in creating norms around technology use behaviours as well as the understanding of possibly problematic technology use. To date, there exist few cross-cultural studies which provide insight into the problems as experienced across cultures.

It is insufficient to rely on individual users to harness their own behaviours when engaging with products which are known to be associated with harms ranging from minor to severe. Similarly, as the evidence builds demonstrating a relationship between online gambling and gaming and harms, the precautionary principle dictates that government organisations and regulators act to prevent products, environments and marketing which is likely to be unduly harmful to those most vulnerable to developing problems, including young people and those with existing mental health problems. There is increasing pressure on the gambling industry in several

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jurisdictions to innovate and lead the way in efforts to prevent and actively intervene when gambling problems are developing or apparent. Similar efforts are needed for online gaming, such as the establishment of frameworks for appropriate and inappropriate product design and requirement for consumer protection tools such as limiting spend and time within games.

In line with the recommendations by the Royal College of Psychiatrists (2020), taxation of the digital technology industries relative to their revenues may aid research and prevention approaches, adopting an approach comparable to that of the gambling industry. An option may be to adopt a 'yellow card' warning system to protect public health and safety with regards to risk akin to that used in the context of medications. From a design perspective, research informing the suitability of particular digital technology use across user age groups is needed, alongside applying relevant user protection.

Implications for clinical practice include establishing dialogue amongst experts in the field, including clinicians, social workers, educators, technology users and their significant others. A fine balance must be reached where everyday behaviours are not pathologised, and risk behaviours are identified and prevented from developing into problematic behaviours. Developmental perspectives need to be considered in cases of young users and the problem behaviour needs contextualising accordingly, with the family being involved in treatment. Cognitive behavioural therapy approaches currently have the most scientific backing in terms of helping individuals who experience problems, and typically integrate behaviour modification through challenging automatic thinking and emotions, providing behavioural alternatives and developing life skills (Kuss & Pontes, 2019).

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References

- Andreassen, C.S., Billieux, J., Griffiths, M.D., Kuss, D.J., Demetrovics, Z., Mazzoni, E., Pallesen, S. et al. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of addictive behaviors : journal of the Society of Psychologists in Addictive Behaviors*, 30(2), 252–262. https://doi.org/10.1037/adb0000160
- Gainsbury, S.M. (2015). Online gambling addiction: The relationship between internet gambling and disordered gambling. *Current Addiction Reports*, *2*, 185–193.
- Kuss, D.J., Kristensen, A.M., & Lopez-Fernandez, O. (2020). Internet addictions outside of Europe: A systematic literature review. *Computers in Human Behavior*, In press.
- Kuss, D.J., & Pontes, H.M. (2019). Internet addiction. Advances in psychotherapy – Evidence-based practice. Abingdon, UK: Hogrefe.
- Leeman, R.F., & Potenza, M.N. (2012). Similarities and differences between pathological gambling and substance use disorders. *Psychopharmacology (Berlin)*, 219, 469–490.
- Royal College of Psychiatrists. (2020). *Technology use and the mental health of children and young people. CR225.* London: Royal College of Psychiatrists.
- Stevens, M.W., Dorstyn, D., Delfabbro, P.H., & King, D.L. (2020). Global prevalence of gaming disorder: A systematic review and meta-analysis. *Australian & New Zealand Journal of Psychiatry*, 0004867420962851.
- Throuvala, M.A., Griffiths, M.D., Rennoldson, M., & Kuss, D.J. (2019). School-based prevention for adolescent internet addiction: Prevention is the key. A systematic literature review. *Current Neuropharmacology*, 17, 507–525.
- Swanton, T.B., Blaszczynski, A., Forlini, C., Starcevic, V., & Gainsbury, S.M. (2020). Problematic risk-taking involving emerging technologies: A stakeholder framework to minimize harms. *Journal of Behavioral Addictions*, https://doi.org/10.1556/2006.8.2019.52

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