

Is Online Gaming A Risk Factor for Problem Gambling? An Exploratory Study in a Sample of University Undergraduate Students

Summary Report for the Manitoba Gambling Research Program

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Research Priority:

Explore what risk and protective factors (individual, social, environmental) influence the movement back and forth between no risk and problem gambling risk levels.

Significance

Recent years have witnessed both a massive expansion of online gaming and a growing convergence of online social/video gaming with online gambling in terms of the structure and style of games (Morgan Stanley, 2012). Concomitantly, there has been an increasing concern that gambling elements present within video games may constitute a pathway towards future gambling problems (Derevensky et al., 2013). Thus, there has been a growth in research that analyzes social online gaming and its relationship to gambling behaviour and problem gambling risk (Derevensky et al., 2013; King, Delfabbro, & Griffiths, 2013).

Research Questions

This research project proposed to address two of MGRP's 2014 research priorities (10 & 11): Does participation in certain types of online gaming present a new and growing risk factor for development of problem gambling in young adults? Are there certain characteristics and experiences of online gaming that are associated with different patterns of gambling activity and risk level? And are there common etiological associations (e.g. mental health and substance abuse comorbidities, motivations, coping, etc.) between online gaming and gambling behaviour, and between problematic/pathological online gaming and problem gambling? Although primarily exploratory and descriptive in scope, given the relatively nascent stage of research in this area, our two-part study sought to gather new insight into possible connections between online gaming and gambling behavior and problem gambling risk.

Methodology

This research project was divided into two separate studies. **Study 1** demonstrated the validity of a modified version of Problem Video Game Playing Test (PVGTT; King et al., 2011) as a measure of problem online video gaming in an undergraduate university sample. **Study 2** built upon

Study 1 by first, statistically identifying subgroups of gamers based upon their video game playing habits, and second, identifying group-specific risk factors for problem gambling and problem video gaming. That is, whether or not certain subtypes of gamer exhibited more/less risk for problem gaming and gambling, and the characteristics associated with this risk.

The data set used to perform these studies was the Student Leisure and Well-Being Survey (SLWBS), which had been collected from undergraduate students enrolled in introductory level Sociology courses between September 2014 and December 2015 at the University of Manitoba. While the survey was completed by 1,352 students, only 696 had reported spending some amount of time playing video games in an average week, and thus this group formed the final sample for analysis.

Key Findings

The studies produced several noteworthy findings. Study 1 revealed that, contrary to expectations, neither depression anxiety nor stress were significant predictors of problem online video gaming (as measured by the PVGT) when controlling for other factors hypothesized to relate to problem video gaming. Problem gambling, as measured by the Problem Gambling Severity Index (PGSI), was not associated with problem online video gaming, and risk factors frequently identified in problem gambling research, such as impulsiveness and self-esteem, were not significant predictors of problem online video gaming once other factors (e.g. time and money spent, motivations for playing) were taken into account. Ultimately, when all other factors were controlled for, problem online video gaming scores were significantly predicted by self-reported social alienation, average time spent playing video games, and motivational factors including 'escape', 'social', 'recreation', 'competition' and 'cope'.

Study 2 revealed the existence of three dominant video gaming subtypes, 'gambling gamers', 'Free-to-play (F2P) gamers' and 'non-F2P gamers'. Membership into the gambling gamer class was heavily predicted by higher problem gambling risk scores, and this class displayed low motivation for playing for recreational purposes. Problem gambling risk did not predict membership in either of the F2P and non-F2P classes. F2P gamers were more likely to be male, and to play for longer periods of time, while displaying high recreational motivation for playing. Additionally, PVGT scores slightly predicted membership into the F2P group over the non-F2P group.

Importantly, membership in the gambling gamers class was significantly predicted by both problem online video gaming and problem gambling risk scores. Although this class is small (2.9% of the sample), it is important to view this group as potentially vulnerable to risk factors associated with problem video gaming and problem gambling. Future research should explore this group of gamers, perhaps through purposeful sampling, in order to obtain a larger sample. Such research would strengthen our understanding of risk factors that connect problem video gaming and problem gambling.

Conclusions

This research project did not find evidence of connections between problem video gaming and concepts traditionally explored in problem gambling literature. Additionally, this project did not draw a connection between problem gambling and problem online video gaming scores. While this could suggest that the phenomenon of problem video gaming differs from problem gambling, more research is necessary to understand the link between these two activities. Future research should specifically explore individuals who participate in both video gaming and

gambling activities. This could allow for an exploration of individuals with particular risk factors for problem gambling and problem video gaming, and allow for a greater comparison which could yield valuable information regarding the potentially comorbid relationship between problem video gaming and gambling.

Another limitation of this study relates to the diverse nature of video game players. First, 63.4% of scores on the PVGT from the SLWBS fall into the category Young (1998) called “average users” in relation to internet use, while only 1.6% of PVGT scores would fall into the “significant problems associated with the internet” category (King et al., 2011, p. 77). Similar to King and colleagues (2011) discussion of scoring for problem video gaming, this study used and recommends the continued application of the PVGT as a continuous measure until further exploration of the PVGT takes place, and its connection with clinical diagnostic scores can be established. Thus, the current understanding of the PVGT remains that higher scores reflect more problematic video game playing.

References

- Derevensky, J.L., Gainsbury, S., Gupta, R., & Ellery, M. (2013). Play-for-fun/social-casino gambling: An examination of our current knowledge. A report submitted to the Manitoba Gambling Research Program, October, 2013.
- King, D. L., Delfabbro, P. H., & Zajac, I.T. (2011). Preliminary Validation of a New Clinical Tool for Identifying Problem Video Game Playing. *International Journal of Mental Health Addiction*, 9(1), 72–87.
- King, D. L., Delfabbro, P. H., & Griffiths, M. D. (2013). Video game addiction. *Principles of Addiction: Comprehensive Addictive Behaviors and Disorders*. 1, 819-827.
- Morgan Stanley (2012). *Social gambling: Click here to play*. Morgan Stanley Blue Paper.



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