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Are the profiles of past-year internet gamblers generalizable to regular internet gamblers?

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ABSTRACT

Research generally classifies internet gamblers as those who have gambled online at least once in the previous year. This classification system has been criticised on the grounds that it fails to consider the frequency of internet gambling. This study aimed to contrast the demographic, gambling, and psychosocial profiles of regular internet gamblers (at least monthly in the previous year) with those of past-year internet gamblers. Computer-assisted telephone interviews were conducted with 4303 adult respondents from Tasmania, Australia. The findings revealed that 3.3% were past-year internet gamblers and 2.1% were regular internet gamblers. Both past-year and regular internet gambling were significantly associated with several variables (younger age, dependent children, paid employment, higher annual income, higher gambling frequency and expenditure, younger age of first gambling, challenge and positive feelings gambling motives, and positive reinforcement gambling triggers). However, several variables were significantly associated only with past-year internet gambling (male gender, living with partner, number of gambling activities, regulate internal state gambling motives, hazardous alcohol use, cannabis use, and other illicit drug use) or regular internet gambling (higher education). Only gambling for positive feelings was a significant independent predictor of both past-year and regular internet gambling. These findings suggest that the classification of past-year internet gambling that is normally employed in research produces profiles that are not fully generalizable to regular internet gamblers.

1. Introduction

1.1. Prevalence of internet gambling

Internet gambling comprises participation on any gambling activity, including wagering, gaming, and lotteries via the internet through computers, mobile telephones, or wireless devices. There has been much speculation that Internet gambling is potentially more harmful than land-based forms of gambling due to its availability, accessibility, anonymity, affordability, flexibility, convenience, interactivity, practice or 'free play' sites, multi-game opportunity, continuity of play, autoplay features, bonus features, use of electronic cash, and increased event frequencies (Griffiths, 2003; Griffiths & Barnes, 2008; Griffiths, Wood, & Parke, 2009; McCormack & Griffiths, 2013). There have been concerns that internet gambling fails to protect underage gamblers and problem gamblers and to prevent gambling while intoxicated or at work (Griffiths, 2003; Griffiths & Barnes, 2008; Griffiths et al., 2009).

Despite these concerns, internet gambling remains a relatively small part of the gambling market (approximately 9%) (Global Betting & Gaming Consultants, 2011; Kelleher, 2010; Pricewaterhouse Coopers., 2011; Productivity Commission, 2010), with population representative studies indicating that the past-year prevalence rate of internet gambling internationally is up to 14% (Gainsbury, Russell, Hing, Wood, Lubman, et al., 2013; Productivity Commission, 2010; Wardle, Moody, Griffiths, Orford, & Volberg, 2011; Wardle et al., 2010; Wood & Williams, 2011), the prevalence of internet gambling appears to vary significantly between countries and regions, with higher rates occurring in European countries and the Caribbean and lower rates occurring in North America, Asia, Australia, and New Zealand (Wood & Williams, 2009). Moreover, internet gambling is the most rapidly growing sector of the gambling market (Gainsbury, 2012; Humphreys & Perez, 2012; Wood & Williams, 2011) due to increased gambling opportunities, accessibility, and social

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acceptability (King, Delfabbro, & Griffiths, 2010). Internationally, the annual growth rate of internet gambling is approximately 12% per annum, which is significantly higher than that of rest of the gambling market (Global Betting, 2011; Pricewaterhouse Coopers, 2011). The growth and increased availability through liberalisation of internet gambling will likely increase participation and gambling problems in the future.

This pattern of growth relative to other sectors of the gambling market is also evident in Australia. While the annual growth rate of gambling expenditure has slowed to less than 1%, it is estimated that expenditure in internet gambling has more than doubled in recent years to represent approximately 4% of national gambling expenditure (Productivity Commission, 2010). A recent random digit dialling telephone survey of a nationally representative sample of 15,006 Australian adults reported a past-year internet gambling prevalence of 8.1% (Gainsbury, Russell, Hing, Wood, Lubman, et al., 2013). However, there were considerable between-state/territory differences, with prevalence estimates of past-year internet gambling ranging from 0.6% in the Australian Capital Territory to 32.8% in New South Wales. In Tasmania, the state in which the current study was conducted, the prevalence of past-year internet gambling was 1.9%.

1.2. Characteristics associated with internet gambling

Little of the research into internet gambling and its associated characteristics has been based on explicit theoretical rationales. In the absence of a comprehensive and well-supported theory of internet gambling, it appears that the complex interaction between multiple associated correlates across numerous individual, extra-individual, social and cultural domains may be best viewed through a biopsychosocial model. Such models emphasise the shared influence of variables in accounting for differences in particular behaviours of interest. For example, Edwards, Arif, and Hodgson (1981) proposed a biopsychosocial model of drug use which was adapted by Casey et al. (2011) in relation to adolescent problem gambling. It contains a number of domains, under which proposed associated characteristics are grouped (Casey et al., 2011; Edwards et al., 1981). These include demographic, biological, temperament and personality, family history, cognitive, family environment, extra-familial and stressor domains. In the model, these factors interact and exert an influence on gambling participation, which in turn leads to greater risk for developing gambling problems.

Although this model is not specific to internet gambling, a small, but dedicated, literature using both representative and self-selected samples has examined the degree to which characteristics from this model are associated with internet gambling. The findings of this literature suggest that although internet gamblers are a heterogeneous group (Gainsbury, Wood, Russell, Hing, & Blaszczynski, 2012; Humphreys & Perez, 2012), they may represent a distinct subgroup of the gambling population. In general, internet gamblers are more likely to be male, younger, single, well-educated, employed full-time, and of higher income than non-internet gamblers (Gainsbury, Russell, Hing, Wood, & Blaszczynski, 2013; Gainsbury, Russell, Hing, Wood, Lubman, et al., 2013; Gainsbury et al., 2012; Griffiths, Wardle, Orford, Sproston, & Erens, 2009; Jimenez-Murcia et al., 2011; Kairouz, Paradis, & Nadeau, 2012; Ladd & Petry, 2002; McCormack, Shorter, & Griffiths, 2013; Petry, 2006; Wood & Williams, 2011).

Research has also explored the degree of gambling involvement associated with internet gambling. Internet gamblers demonstrate more severe gambling behaviour including greater gambling frequency, higher overall gambling expenditure, and gambling on more activities than non-internet gamblers (Gainsbury, Russell, Hing, Wood, & Blaszczynski, 2013; Jimenez-Murcia et al., 2011; McCormack et al., 2013; Smead, Derevensky, Fong, & Gupta, 2012; Wood & Williams, 2011). Few internet gamblers (up to 5%) gamble exclusively on internet gambling activities (McBride & Derevensky, 2009; Olason et al., 2011; Productivity Commission, 2010; Wardle & Griffiths, 2011; Wardle et al., 2011; Wood & Williams, 2007). In relation to specific gambling activities, Gainsbury, Russell, Hing, Wood, Lubman, et al. (2013) found that internet gamblers report higher past-year participation on all gambling activities except lotteries and instant scratch tickets. In this study, internet gamblers preferred horse or dog racing and sports betting while non-internet gamblers preferred horse or dog race betting and electronic gaming machines (EGMs). Internet gamblers may also display more positive gambling attitudes (Wood & Williams, 2011) and cognitive distortions (MacKay & Hodgins, 2012; Wood, 2009; Wood & Williams, 2011) than non-internet gamblers. Finally, there is an accumulation of evidence that internet gamblers display more problem gambling symptoms and report higher rates of problem gambling than non-internet gamblers (Brunelle et al., 2012; Griffiths, Wardle, Orford, Sproston, & Erens, 2011; Griffiths et al., 2009; Kairouz et al., 2012; Ladd & Petry, 2002; Olason et al., 2011; Potenza et al., 2011; Wood & Williams, 2011). The direction of causality, however, between internet gambling and problem gambling is unclear. It is unknown whether participation in internet gambling increases the likelihood of developing gambling problems or whether problem gamblers are attracted to internet gambling.

Despite these differences between internet and non-internet gamblers, little is known about the motivations and triggers for gambling amongst internet gamblers. Both theoretical and empirical research has suggested that there may be many motivations specifically associated with internet gambling (Gainsbury et al., 2012; Griffiths & Barnes, 2008; Griffiths et al., 2009; McBride & Derevensky, 2009; McCormack et al., 2013; Productivity Commission, 2010; Wong, 2010; Wood, 2009; Wood, Williams, & Lawton, 2007). Using qualitative and quantitative data collected from an internet-based survey of 1920 internet gamblers, Wood et al. (2007) grouped these motivations into four categories: the relative convenience, comfort, and ease of internet gambling; an aversion to the atmosphere and clientele of non-internet venues; a preference for the pace and nature of internet gambling; and the potential for higher wins and lower overall expenditures when gambling online. In another study, Lloyd et al. (2010a) found that mood regulation, gambling for money and gambling for enjoyment were associated with gambling problems in 4125 internet gamblers. Similarly, there is also some evidence that internet gamblers are more likely to report 'gambling to escape' than non-internet gamblers (Griffiths, Wardle, Orford, Sproston, & Erens, 2008) and that winning, enjoyment, entertainment, and relieving boredom are the primary reasons for internet gambling (Hopley & Nicki, 2010; Smead et al., 2012; Wong, 2010). Given that evidence suggests that gambling motivations differ across population subgroups according to socio-demographic factors, gambling frequency, problem gambling severity, the number of gambling activities endorsed, and preferred gambling activity (Clarke, 2005; Francis, Dowling, Jackson, Christensen, & Wardle, 2014; Lam, 2007; Wardle, Dobbie, Kerr, & Reith, 2009), it is likely that gambling motivations will also vary according to the frequency of internet gambling. Knowledge about the differences in gambling triggers and motivations will further our understanding of internet gambling.

The solitary nature and anonymity of internet gambling may contribute to other psychological and health issues (Griffiths et al., 2011; Scholes-Balog & Hemphill, 2012). For example, internet gamblers have demonstrated higher rates of cigarette smoking (McCormack et al., 2013; Smead et al., 2012; Wood & Williams, 2011), alcohol and substance use (Brunelle et al., 2012; Griffiths