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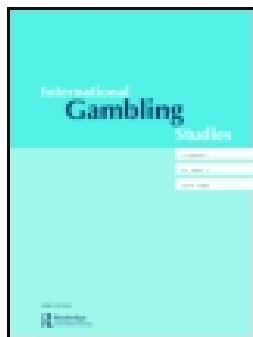
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Loyalty programmes in the gambling industry: potentials for harm and possibilities for harm-minimization

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ABSTRACT

The field of gambling studies has been remarkably silent on loyalty programmes in the gambling industry. This article reviews the scant empirical literature, with an aim to stimulate discussion and research about the impact of loyalty programme membership on players. Preliminary evidence suggests that disordered gamblers are more apt to join a loyalty programme and be disproportionately rewarded (due to the amount of money they spend gambling) relative to recreational and at-risk gamblers. As such, loyalty programmes in the gambling industry may generate harms in vulnerable individuals. However, loyalty programmes may also be well positioned to facilitate harm-minimization by promoting behavioural tracking that is collected on every member – information that can be provided to players to advance responsible gambling. Additionally, members could be rewarded for engagement with responsible gambling tools, which may increase the currently low rate of tool use. That said, structuring loyalty programmes to reward the use of responsible gambling instruments with time on device or even non-monetary prizes may be incompatible with harm-minimization efforts. There exists a need for empirical research on the antecedents and consequences of loyalty programme membership as well as the possibility that loyalty programmes have some responsibility gambling utility.

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A central task for companies in a competitive marketplace is to implement strategies to harness both attitudinal and behavioural loyalty from their existing customers (see Dominici & Guzzo, 2010). The presupposition is that loyal customers will help the company maintain and grow its current market share (see Zeithaml, 2000). However, achieving loyalty can prove difficult, especially in a marketplace where products and services offered by one company are nearly identical to those of its rival (Victorino, Verma, Plaschka, & Dev, 2005). For instance, in the gambling industry, the degrees of freedom for the type of game offered is low. There is a core group of games that all casinos offer (e.g. poker, blackjack, slots). That is, the games offered do not differ markedly from one casino to another. Thus, attention is often directed to offering the player a unique, memorable and positive experience (see Wong, 2013). The most ubiquitous means companies in most industries, including the gambling industry, use

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to harness customer loyalty is the loyalty programme – a marketing strategy focused on offering benefits (i.e. rewards) to the player to maintain their patronage (i.e. loyalty).

Akin to other industries, loyalty programmes in the gambling industry are considered a critical component of a successful casino operation (see Shook, 2003). This is evidenced in the growth of loyalty programmes across the gambling industry. In 2010, there were over 133 million casino-based loyalty programme members in the United States, a 71% increase from 2006 (Hlavinka & Sullivan, 2011). This growth is expected to continue (Berry, 2013). As such, from a business perspective, loyalty programmes are a good way to expand the player base (Lucas, Dunn, & Singh, 2005).

From a public health perspective, however, loyalty programmes in the gambling industry may generate harms in vulnerable individuals. This is because loyalty programmes alter the consumption environment that drive gambling harms. Specifically, loyalty programmes provide rewards to players who gamble frequently (see Wardle, 2016; Wardle, Excel, Ireland, Ilic, & Sharman., 2014), thus linking reinforcement to the amount of money gambled (i.e. money spent gambling) rather than the outcome of each game played (i.e. a win or a loss). Additionally, in line with the goal-gradient hypothesis (Hull, 1932), the desire to gamble should increase alongside proximity to a reward. In this light, loyalty programmes in the gambling industry may be antithetical to harm-minimization strategies.

At present, however, any position on the link between loyalty programmes and gambling behaviour is largely conjecture. This is because there is a paucity of research on the antecedents and consequences of membership in a loyalty programme in the gambling industry (for exceptions, see Baloglu, Zhong, & Tanford, 2017; Palmer & Mahoney, 2005; Prentice & Wong, 2015), perhaps owing to the gambling industry's historic unwillingness to allow researchers access to their player data. In the void, researchers and policymakers must retrofit research from other industries to programmes in the gambling industry (Baloglu et al., 2017). However, it may be inappropriate to compare the effects of loyalty programmes in the gambling industry with those in other industries, due to the addictive potential of gambling. Moreover, research that does exist tends to examine loyalty programmes from a business perspective (e.g. does a loyalty programme increase player loyalty and/or casino profits?) as opposed to a social responsibility perspective. In fact, given the ubiquity of loyalty programmes in the gambling industry, the field of gambling studies has been remarkably silent on their potential harms, but also on the potential ways loyalty programmes can be used to minimize the harms associated with gambling.

In this article, I review the small but growing empirical literature on loyalty programmes in the gambling industry. Throughout, I apply a harm-minimization lens (see Gainsbury & Blaszczynski, 2012) to this body of research. This lens tends to focus attention on the prevention of harm from gambling as opposed to preventing involvement in gambling. Herein, I advance the possibility that loyalty programmes are a heretofore unexamined facilitating or maintaining agent of disordered gambling, which may work against harm-minimization efforts (e.g. responsible gambling policies and programmes). However, I also discuss whether loyalty programmes can be modified in the service of harm-minimization for recreational and at-risk gamblers. Within this discussion, I present arguments for and against using loyalty programmes to reward responsible gambling tool use. The ultimate goal is to stimulate discussion about the impact of loyalty programmes in the gambling industry as well as research attention on this neglected area of investigation.

Methodology

A literature search was conducted using the Scopus database to identify research relevant to loyalty programs and their effect on attitudes and behaviour. The query was: (TITLE-ABS-KEY(reward*) AND TITLE-ABS-KEY(program) AND TITLE-ABS-KEY(beh*) OR TITLE-ABS-KEY(loyal*) OR TITLE-ABS-KEY(gambl*) OR TITLE-ABS-KEY (addic*)). This netted 2091 unique results.

Papers were included if they focused on a consumer loyalty programme or programmes in stores, businesses and companies. Preferably, the focus was on consumer purchasing behaviour. Papers were excluded if they focused on rewards for non-consumer behaviour. For example, papers that discussed rewarding mental health behaviours, children's behaviour, rewards for employee productivity, health behaviour rewards or safe work behaviours. In total, 185 were deemed relevant.

A second literature search specific to loyalty programmes and gambling was conducted on Google Scholar with the following Boolean Phase: 'loyalty program' AND 'gambling'. This yielded five relevant papers.

Although attempts were made to assess the relevant existing literature, the search strategy should not be considered exhaustive. Additionally, this paper should not be considered a systematic review. The method used to identify relevant research was in line with what is typically called a rapid evidence assessment (see Thomas, Newman, & Oliver, 2013), which is a structured and rigorous way to quickly identify gaps in evidence.

Loyalty programmes in the gambling industry: a brief review of their structure

In the gambling industry, loyalty programmes members accumulate points based on how much money they spend gambling. In British Columbia Lottery Corporation's (BCLC) Encore Rewards, for example, members earn 1 point per \$1 in play on slots, 1 point per \$5 in play for e-blackjack and e-baccarat, and 4 points per \$5 in play for e-roulette and e-poker. Members get \$5 in free slot play for every 1000 points. Most loyalty programmes in the gambling industry also allow members to earn points for non-gambling purchases (e.g. food, drink, hotel stay) at the gambling venue. Curiously, in some loyalty programmes there is a lack of transparency regarding the precise means to acquire points. For example, Sands Rewards tells its members that points can be earned 'when you play at The Sands Casino, The Venetian Casino, The Plaza Casino and Sands Cotai Central Casino' as well as 'when paying by cash or credit card at all participating shops, restaurants, hotels, box offices, and travel services' (Sands Rewards, n.d.).

Although there is variation from programme to programme, points earned can be redeemed for, among other rewards, free-play (e.g. gambling credits worth a specified amount of money), cashback (i.e. money given back to the player), free food and/or accommodations, and entertainment (e.g. free tickets to a concert, live show; see Palmer & Mahoney, 2005). Points also determine a member's status in a programme. Specifically, most loyalty programmes are structured such that different tiers (segments) are assigned to a member based on how many points he or she accumulates (see Drèze

& Nunes, 2009). In other words, tier status is a product of the amount of money a player spends. With each new tier achieved, the member receives different (and better) rewards, with higher tier members usually receiving numerous soft (intangible, non-monetary) rewards like preferential treatment and upgraded service. Moreover, membership in a tier is not static. Status in any given calendar year is dependent on the amount a members spent the previous year. As such, a player who has achieved top-tier status needs to continue a high rate of spending year after year to maintain this status.

Who joins a loyalty programme?

Loyalty programmes are typically populated by customers who were loyal and frequent purchasers prior to the introduction of the programme or have become loyal customers with time (Ferguson, 2006; Gómez, Arranz, & Cillán, 2012; Leenheer, VanHeerde, Bijmolt, & Smidts, 2007; Wardle et al., 2014). This makes intuitive sense. People who frequent a given company or retailer should (a) be more likely to encounter opportunities to join their loyalty programme and (b) see the economic benefits in becoming a loyalty programme member (e.g. increased purchasing power via reward). In the gambling industry, it stands to reason that loyalty card membership may be highest among regular or high-frequency players. However, high-frequency play is a strong predictor of disordered gambling (Hodgins et al., 2012). As such, there is likely a positive association between loyalty programme membership and disordered gambling.

In a preliminary test of the possible link between loyalty programme membership and disordered gambling, Prentice and Wong (2015) surveyed players at 30 casinos in Macau and found a significant relationship between loyalty programme membership and disordered gambling. Specifically, non-disordered gamblers were more likely to have no or basic loyalty programme status than at-risk or disordered gamblers. Conversely, disordered gamblers were likely to have premium membership status. What does this mean? Akin to other industries, loyalty among players reflects both attitudinal loyalty (i.e. positive feelings about a company) and behavioural loyalty (i.e. spending money at a given company). Prentice and Wong's (2015) results are suggestive of a potential problem – behavioural loyalty, particularly among players who have achieved top-tier status, may signal the presence of a gambling disorder.

Although the ultimate decision to gamble resides with the player, the gambling industry holds a duty of care (Blaszczynski et al., 2011; Blaszczynski, Ladouceur, & Shaffer, 2004; Wohl, Sztainert, & Young, 2013). From a social responsibility perspective, it would behave the gambling industry to take special care when approaching high-end gamblers about joining their loyalty programme. Specifically, players who gamble in large volumes or for long hours in the casino should be avoided as these behaviours are strongly associated with disordered gambling. Additionally, there is a growing understanding that, in aggregate, recreational and at-risk gamblers can experience a great deal of harm from gambling (Browne et al., 2016; Productivity Commission, 2010), which may be exacerbated by loyalty programme membership.

In sum, the link between loyalty programmes and disordered gambling identified by Prentice and Wong (2015) is likely reciprocal. Whereas disordered gamblers are apt to join a loyalty programme, the rewards and status gained by membership (especially in

tiered programmes) may motivate continued gambling (i.e. increased spending). Unfortunately, a paucity of research has been conducted to assess whether loyalty programme membership influences the progression and maintenance of disordered gambling.

Do loyalty programmes influence spending?

At present, the literature presents a mixed picture about whether, across industries, loyalty programme membership predicts an increase in spending (see Nunes & Drèze, 2006). Whilst there is research showing that loyalty programme membership does not increase the amount a customer spends (e.g. Dowling & Uncles, 1997; Lucas & Kilby, 2008; Meyer-Waarden & Benavent, 2006; Sharp & Sharp, 1997), some research suggests otherwise (e.g. Kivetz, Urminsky, & Zheng, 2006; Min, Raab, & Tanford, 2016; Narayanan & Manchanda, 2011) (see Table 1 for a summary).

In support of the contention that loyalty programme membership does not increase spending, Sharp and Sharp (1997) found that repeat purchasing behaviour was relatively unchanged after the introduction of a retail-based loyalty programme (i.e. the presence of a loyalty programme did not substantially increase repeat purchasing). Likewise, Meyer-Waarden and Benavent (2006) as well as Mägi (2003) showed that

Table 1. Loyalty programme components and gambling behaviours.

Loyalty programme component	Effect on members	Reference
<i>Tangible rewards</i>		
Free play	Attracts members and facilitates gambling	Greenstein (2012) Min et al. (2016) Market Solutions Social Research Group (2016) Responsible Gambling Council (2013)
Promotions	No effect on gambling Attracts members	Lucas et al. (2005) Greenstein (2012) Marfels (2010) Palmer and Mahoney (2005)
Compensations/gifts (e.g. free food, drinks, hotel stays, etc.)	Attracts members and facilitates gambling	Marfels (2010) Palmer and Mahoney (2005) Prentice and Wong (2015) Min et al. (2016) Narayanan and Manchanda (2011) Greenstein (2012) Barsky and Tzolov (2010)
Complimentary entertainment facilities	No effect on gambling Attracts members	Lucas et al. (2005) Prentice and Wong (2015) Min et al. (2016) Greenstein (2012)
Cash equivalents	Facilitates gambling	Narayanan and Manchanda (2011) Greenstein (2012)
<i>Intangible rewards</i>		
Preferential treatment	Maintains members	Prentice and Wong (2015)
Specialized/complimentary service	Attracts and maintains members	Barsky and Tzolov (2010) Gómez et al. (2012) Prentice and Wong (2015) Palmer and Mahoney (2005)
<i>Tiered structure</i>		
Tier privileges/status	Maintains members and facilitates gambling	Barsky and Tzolov (2010) Min et al. (2016) Palmer and Mahoney (2005)

loyalty programmes in the retail industry do not systematically develop a higher purchase frequency over time. In the airline industry, Liu and Yang (2009) found that loyalty programme membership only increased purchasing by 4.24%. These results are akin to Cigliano, Georgiadis, Pleasance, and Whalley's (2000), who showed that average sales for a grocery retailer increased by 1–3% following the introduction of a loyalty programme. Based on such results, Shugan (2005) argued that loyalty programmes are a poor marketing tool.

One possible explanation for the lack of increased purchasing as a result of loyalty programme membership is that it often takes a great deal of purchasing to accumulate enough points to get rewarded – a situation that is present in most loyalty programmes, including those in the gambling industry. However, Lucas et al. (2005) found a null effect of membership on gambling when the player is offered an instant reward (e.g. free play in return for joining). Another possible explanation is that loyalty programme members were loyal customers prior to enrolment. Meyer-Waarden and Benavent (2006), for example, found that the majority (88%) of cardholders in their study on a retail-based loyalty programme were already customers before subscribing to the loyalty card. Likewise, Ehrenberg, Goodhardt, and Hammond (1994) found that the clear majority (90%) of promotional purchasers in the retail industry were clients of the brand for at least the past year. Thus, an argument can be made that loyalty programmes do not attract new customers. Instead, they reward customers who are already spending a significant sum of money. In the gambling industry, this likely means disordered gamblers (by virtue of the amount of money they spend gambling) are reaping the most benefits from loyalty programme membership.

In support of the contention that loyalty programme membership leads to increased gambling expenditures, Min and colleagues (2016) showed that the introduction of a loyalty programme at a Las Vegas hotel and casino was associated with a slot coin-in (i.e. aggregate value of the bets made) increase of \$302,455 per day, which translates into a \$9366.43 slot profit per day for the casino. There was, however, no impact on table game drop (i.e. the amount of money given to the dealer to play). In a similar vein, Lucas and Bowen (2002) as well as Lucas and Santos (2003) found that direct mail offers and cash promotion giveaways were positively associated with coin-in. Additionally, Zeng and Prentice (2014) found that loyalty programme membership influences where people gamble, such that people's first choice is to gamble where they are a member (see also Shi, Prentice, & He, 2014).

Of course, it makes sense for a player to gamble where spent money translates into points that lead to rewards. Additionally, as a player accumulates points and new (as well as better) rewards are received, attitudinal and behavioural loyalty increases (Kim, Cho, & Han, 2014; Tanford, Raab, & Kim, 2011; Wirtz, Mattila, & Lwin, 2007). In other words, attitudinal and behavioural investment in a programme often begets more attitudinal and behavioural investment in that programme (e.g. Drèze & Nunes, 2011; Kivetz et al., 2006; Leenheer et al., 2007; Liu, 2007).

The observed increase in spending to earn rewards is reminiscent of the goal-gradient hypothesis, which predicts that people's desire to approach a goal increases as the proximity of the goal increases (Hull, 1932). As a customer gets closer to a reward, they become more likely to increase their spending to achieve that reward. Providing empirical support for this supposition, Kivetz and colleagues (2006)

conducted a field study at a university café with a loyalty programme. The programme was structured such that a free coffee was awarded after 10 coffee purchases. They found purchasing accelerated as customers approached the final purchase prior to the free coffee reward. In line with the goal-gradient hypothesis, gambling expenditures should increase as a player approaches a new tier of the loyalty programme. That is, a 'buy more to get (more and better) rewards' pattern of thought is likely brought to the fore when a new tier is close at hand. From a utilitarian perspective, this makes sense. Loyalty programmes in the gambling industry (akin to most other industries) focus on servicing higher-revenue customers, with the best rewards and services going to the top spenders (McCall & Voorhees, 2010; Palmer & Mahoney, 2005). This results in top-tier players experiencing significant pleasure, despite the cost (i.e. large amounts of money) spent to achieve the best rewards and services.

There is also motivation or pressure to continue spending once a new tier is reached (even the top tier), because tier status is typically reset on an annual basis. In the gambling industry, players who achieve a higher level of status and the associated rewards typically do not want to lose that status and the accompanying rewards (Palmer & Mahoney, 2005). A critical issue that has yet to be addressed with empirical study, however, is whether the pressure to achieve and maintain status (i.e. a high tier) in a loyalty programme leads to excessive and disordered gambling.

Social responsibility of loyalty programmes in the gambling industry

A great deal of profit in the gambling industry comes from regular, heavy-betting players. Shook (2003), for example, found that heavy table game players account for 11% of all casino visitors, but their spending accounts for 50% of the industry's total revenue. Williams and Wood (2004) reported that approximately 15% of heavy electronic gambling machine (EGM) players account for 60% of total EGM revenue. Similarly, the Productivity Commission (2010) found that disordered gamblers contribute 40% of the revenue collected by EGMs. Heavy betters also tend to be members at the highest tiers of loyalty programmes – membership in the top tiers is, of course, a product of significant spending (see Prentice & Wong, 2015). In terms of social responsibility, a central issue is whether loyalty programmes facilitate or maintain heavy and/or disordered gambling.

Some researchers and policymakers have expressed concern that the loyalty programmes reinforce gambling and are thus particularly problematic for disordered gamblers (e.g. Responsible Gambling Council [RGC], 2013; Williams, West, & Simpson, 2012). In line with this contention, disordered gamblers are more attracted to loyalty programmes in the gambling industry and less concerned about their possible risks than other players (Haycock, Lewis, McLeod, & Thomas, 2012; Prentice & Wong, 2015). Additionally, in an assessment of the characteristics and behaviour of players who held a loyalty card, Wardle (2016) found that 47.1% were moderate-risk or problem gamblers. Using player account data, it was determined that these players accounted for 54.3% of total losses, which is 15% higher than would be expected if total losses were distributed proportionately across all categories of player (i.e. non-problem, low-risk, moderate-risk and disordered gambler). Informatively, Narayanan and Manchanda (2011) reported that disordered gamblers (but not recreational gamblers) who received a reward during a gambling session increased the amount they wagered in their next gambling session. Thus, rewards may increase gambling

involvement and create problems for disordered gamblers over the long term. These results mirrored the concerns expressed by members of a loyalty programme in a focus group conducted by the Responsible Gambling Council (RGC, 2013) – players believed their gambling increased as a result of the promotions and rewards they received, and that rewards and promotions distorted their perceptions of gambling and their problems.

One reason loyalty programmes may disproportionately impact the behaviour of disordered gamblers (relative to recreational gamblers) is that the rewards offered are a greater lure for this population (see Greenstein, 2012). Indeed, the Market Solutions Social Research Group (2016) found that obtaining loyalty programme points and rewards was an important predictor of the self-reported urge to continue playing past one's limit. As Young and Wohl (2009) have shown, gambling-related urges (i.e. cravings) are significantly associated with problematic play (e.g. exceeding one's limit, persistent play in the face of continued loss) as well as symptoms of disordered gambling. If the rewards offered by a loyalty programme heighten disordered gamblers' craving to play, then it is likely that membership will help maintain (if not facilitate) problematic gambling behaviours. However, to date, this supposition has yet to receive empirical attention.

According to Palmer and Mahoney (2005), the desire to advance tiers as well as reward point proximity to a tier with higher status (i.e. being close to achieving a new tier) should influence wagering. Moreover, they argued that the existence of a loyalty programme focuses a casino's attention on servicing higher-revenue customers. However, such customers are likely to be disordered gamblers (see Williams & Wood, 2004). As such, loyalty programmes may (inadvertently) help maintain (if not exacerbate) disordered gambling. Providing circumstantial evidence, Barsky and Tzolov (2010) found that players with elite, top-tier status (and thus those with a greater likelihood to display symptoms of disordered gambling) were more satisfied with the loyalty programme and were willing to spend more money than players who did not have elite, top-tier status as well as non-members. With that said, no research has directly examined whether loyalty programmes facilitate the development of disordered gambling or whether disordered gamblers simply asymmetrically benefit from the existence of loyalty programmes due to their excessive play.

Nonetheless, considering the available data, the social responsibility of loyalty programmes in the gambling industry should be given greater attention by researchers and policymakers alike. This is because loyalty programmes may not only facilitate or help maintain disordered gambling, they may serve to sideline harm-minimization efforts (i.e. the prevention of disordered gambling). Indeed, the implicit message loyalty programmes send is 'keep spending to get rewarded', whereas an explicit message of harm-minimization efforts is to 'limit spending'. It is unknown how members reconcile these two seemingly conflicting messages. However, even those without a gambling-related problem (i.e. recreational and low-risk gamblers) may forgo harm-minimization strategies (e.g. adherence to a preset limit on spending) if it is believed that a reward is close at hand.

Loyalty programmes and their potential utility for responsible gambling

Every time members use their loyalty card, their behaviour is recorded. This data provides a record of a person's pattern of play (e.g. betting frequency, bet size, volatility in bet size, chasing losses, exceeding preset limits), which can be used to detect gambling problems

(Adami et al., 2013; Boldero, Bell, & Moore, 2010; Braverman & Shaffer, 2012; Philander, 2013). Player data can, of course, be applied unscrupulously to exploit at-risk and disordered gamblers. Marketers can, for example, use behavioural tracking data to identify heavy spenders (of whom a significant portion may be disordered gamblers) and lure them to the casino with special rewards and offers. However, behavioural tracking data can also support the prevention of disordered gambling by facilitating responsible gambling (see Gainsbury, 2011; Haefeli, Lischer, & Schwarz, 2011; Wood & Wohl, 2015). For instance, a loyalty programme can provide members with personalized behavioural feedback (e.g. how much money they have spent gambling over a period of time), which has been shown to minimize harm (see Griffiths, Wood, & Parke, 2009; Wohl, Davis, & Hollingshead, 2017; Wood & Wohl, 2015).

In addition to providing personalized behavioural feedback, data collected by a loyalty programme can be provided to players in the form of normative feedback (i.e. information about how other people typically behave). Providing people with such feedback relies on the fact that many people engaged in risky behaviour (e.g. drinking, gambling) perceive that important others approve of their behaviour and overestimate the extent to which peers engage in similar behaviour (see Larimer & Neighbors, 2003; Neighbors et al., 2007). Normative feedback can correct these misconceptions by developing a salient discrepancy between perceived and actual norms, thereby providing an accurate context in which the individual can evaluate his or her behaviour (Auer & Griffiths, 2015; Collins, Carey, & Sliwinski, 2002).

Additionally, loyalty programmes can offer members tools that allow them to set an explicit limit on the amount of money or time they spend gambling over a specified period, and access personalized information about their play history (i.e. how much they have spent gambling over a specified period). These tools have been shown to have responsible gambling utility (Blaszczynski, Gainsbury, & Karlov, 2014; Kim, Wohl, Stewart, Sztainert, & Gainsbury, 2014; Stewart & Wohl, 2013; Wohl, Santesso, & Harrigan, 2013). Not surprisingly, members who use the tools demonstrate reductions in risky behaviour and decreased daily expenditures (see Auer & Griffiths, 2015; Productivity Commission, 2010; Schellinck & Schrans, 2007; Wood & Wohl, 2015). In this light, it may be possible to use loyalty programmes to advance responsible gambling.

It is, of course, possible to introduce harm-minimization measures independent of loyalty programmes. In Sweden, for example, people who wish to gamble must have a player card (scratch cards being the current exception). When activated, the player is required to set a weekly budget. If players desire personalized behavioural feedback, they can enroll in Playscan – a behavioural tracking tool that has been shown to increase responsible gambling (Griffiths et al., 2009; Wood & Wohl, 2015). Importantly, this player card is not associated with a loyalty programme. Thus, regulators can and have mandated that operators institute a player account system that gathers data identical to that which would be collected by a loyalty programme and offer responsible gambling tools, including personalized behavioural tracking information, as a matter of course.

Unfortunately, although players are open to having responsible gambling tools readily available, few recreational gamblers express interest in using the tool, and some disordered gamblers express concern that loss alerts may induce chasing losses

(Bernhard, Lucas, Jang, & Kim, 2006). In Australia, Schottler Consulting (2009) found that only 2% of loyalty programme members signed up to use responsible tools when they were made available. Similarly, Nelson and colleagues (2008) found that only 1% of players on an Internet sports betting site (i.e. bwin) used the self-set limit feature during the 18-month study period. In Sweden, a relatively higher percentage of players (10%) chose to receive play assessments for risky gambling. However, engagement has been shown to decrease with each use of use of Playscan (i.e. the behavioural tracking tool; see Forsström, Hesser, & Carlbring, 2016; Forsström, Jansson-Fröjmark, Hesser, & Carlbring, 2017). In this light, a primary hurdle to responsible gambling tool use is overcoming reluctance to use such tools.

Rewarding responsible gambling tools use: a viable way to increase uptake?

A possible way to increase responsible gambling tool use is to reward players for engaging with the tool. For example, a member could be offered reward points for, among other things, setting a limit on the amount of money and/or time spent gambling, adhering to a preset limit, watching an educational video or completing a self-test (e.g. an assessment of gambling attitudes and behaviours). To date, little attention has been paid to whether rewarding responsible gambling tool use is a viable means to increase engagement with those tools. However, there is a large body of research that has demonstrated that rewarding healthy behaviours (e.g. exercise) can increase engagement in those behaviours over the short and long term (see Mitchell et al., 2013 for a systematic review and meta-analysis).

Why might rewarding players for engaging with responsible gambling tools be a good idea? First, rewarding responsible gambling tool use may add to their perceived value, which may motivate engagement with tools that players largely ignore (Bernhard et al., 2006). Second, once exposed to responsible gambling tools, players may decide they are a useful addition to their behavioural repertoire (Nisbet, 2005). Suggestive of this process is research showing that players who are exposed to responsible gambling information (e.g. player history) express liking of this information and an intention to use this information in the future (see Bernhard et al., 2006; Griffiths et al., 2009; Productivity Commission, 2010; Schellinck & Schrans, 2007; Schottler Consulting, 2010; Wohl et al., 2017).

Notably, there is already movement in the gambling industry toward rewarding engagement with responsible gambling tools. For example, members of Finland's Veikkaus Points earn rewards for learning about self-monitoring services, taking a self-assessment test and familiarizing themselves with how gaming revenue is used. Points can be redeemed for various prizes (e.g. food, entertainment). However, points cannot be redeemed for time on device (i.e. free play). Unfortunately, no research has directly examined the utility of rewarding either enrolment in responsible gambling programmes or responsible gambling tool use.

An important qualifier to the potential benefits of rewarding responsible gambling tool use is that responsible gambling tools are created to help prevent disordered gambling, not to intervene when gambling has become problematic (Blaszczynski et al., 2004). Although the added value of rewards for engaging with responsible

gambling tools may attract players to interact with those tools, it may have little effect on disordered gambling. Informatively, disordered gamblers (relative to recreational gamblers) report that if rewarded for using responsible gambling tools they would likely 'work the (rewards) system' by setting an extremely high limit (one they never intend to reach; Hollingshead & Wohl, 2017). Thus, rewarding disordered gamblers for engaging with responsible gambling tools may have a deleterious effect on responsible gambling.

In this light, rewarding engagement with responsible gambling tools may be incompatible with efforts to constrain excessive gambling behaviour (see RGC, 2013; Williams et al., 2012). Imagine a player adheres to her monetary limit. For doing so, she is rewarded loyalty points. In conjunction with the amount she spent gambling, she is awarded time on device (i.e. free play). Tension is thus created between responsible gambling and use of the reward. Specifically, the player must balance cessation of the gambling session (in line with their pre-commitment strategy) with continued gambling via their 'free' play. Of course, as with Finland's Veikkaus Points, players could be rewarded with non-gambling prizes (e.g. food vouchers, cinema tickets). Doing so is likely more socially responsible than rewarding membership with time on device.

Caution, however, is warranted. Some players may gamble in pursuit of any type of reward, as long as they perceive the reward to be of value. This is because some people are more sensitive to the potential of being rewarded than other players – a propensity known as reward sensitivity (see Sztainert, Wohl, McManus, & Stead, 2014; Torrubia, Avila, Molto, & Caseras, 2001). Among reward-sensitive players, providing a new avenue to gain reward (via responsible gambling tool use) may facilitate the progression and maintenance of their disordered gambling as opposed to harnessing responsible gambling behaviours. Additionally, the possible benefits of rewarding responsible gambling tool use likely excludes disordered gamblers. For most disordered gamblers, assistance from a treatment provider is required. They should not be urged (or tempted via reward) to continue gambling. It is in this light that Yani-de-Soriano, Javed, and Yousafzai (2012) argued that rewarding players should be banned. The anticipation of reward and the reward itself simply tempt continued play, especially in tiered loyalty programmes (see Palmer & Mahoney, 2005) where membership is skewed toward those who are disordered gamblers (see Prentice & Wong, 2015).

A call for research

Empirical assessment of the antecedents and consequences of joining a loyalty programme in the gambling industry is still in its infancy. Yet the handful of studies that have been conducted suggest that loyalty programmes may disproportionately reward disordered gamblers, which may be a barrier to treatment-seeking. Moreover, they may facilitate the development of gambling problems. With that said, a paucity of research has been conducted on the topic. Behavioural tracking data in conjunction with self-reports provides the key to understanding the effect loyalty programmes have on the player. Should rewarding players for using responsible gambling tools be incorporated into a loyalty programme, the programme should be rigorously monitored and evaluated by arm's-length, independent assessors via behavioural tracking data (as well as self-reports from players).

Theory suggests that providing players with time on device as a reward for responsible gambling is counterproductive. Even though players may report a greater willingness to use responsible gambling tools if rewarded with time on device, 'there is a very fine line between providing what the customer wants and exploitation' (Griffiths et al., 2009, p. 36). The added value perceived by players should be balanced with the possibility that it may have unintended consequences (e.g. increased excessive gambling). If rewards are offered, it may be more socially responsible to avoid or minimize rewards that provide time on device (see Independent Gambling Authority, 2012; Simpson, 2012). It behoves researchers to fill the current gaps in knowledge, given the basic and applied implications.

Conclusion

There is a need to establish a more complete knowledge base on the consequences of loyalty programmes in the gambling industry – knowledge that represents the interests of all stakeholders (e.g. community, industry, government, academics). Doing so will help advance public policy focused on gambling-related harm. The primary objective of this review of loyalty programmes in the gambling industry was to initiate discussion and research on the ways loyalty programmes may harm the player, but also to explore whether loyalty programmes could help to reduce risks of gambling harms. Rewarding the use of responsible gambling tools may be one means by which loyalty programmes advance informed decision-making about how much time and money a player spends gambling. However, there are also social responsibility concerns that should be taken into account. Insight into the impacts of loyalty programmes on gambling behaviours is critical as their proliferations continues.

Conflicts of interest

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Competing interests

The authors declared no competing interests.

Constraints on publishing

There were no constraints on publishing.

Notes on contributor

Michael J. A. Wohl (professor of psychology) examines factors that lead to excessive play (e.g. erroneous cognitions, craving) and means to increase responsible gambling (e.g. setting a limit on play). Recently, attention has been paid to the potential impact social casino gaming (i.e. free to play games on social network sites) and loyalty programme membership can have on (responsible) gambling behaviour. Ultimately, he is interested processes that promote positive behavioural change. He has published over 100 peer reviewed papers, 10 chapters in edited volumes, and 20 technical or government reports.

References

- Adami, N., Benini, S., Boschetti, A., Canini, L., Maione, F., & Temporin, M. (2013). Markers of unsustainable gambling for early detection of at risk online gamblers. *International Gambling Studies*, 13, 188–204.
- Auer, M. M., & Griffiths, M. D. (2015). The use of personalized behavioural feedback for online gamblers: An empirical study. *Frontiers in Psychology*, 6, 1406.
- Baloglu, S., Zhong, Y. Y., & Tanford, S. (2017). Casino loyalty: The influence of loyalty program, switching costs, and trust. *Journal of Hospitality & Tourism Research*, 41, 846–868.
- Barsky, J., & Tzolov, T. (2010). The effectiveness of casino loyalty programs Their influence on satisfaction, emotional connections, loyalty and price sensitivity. *Marketing*, Paper 1. Retrieved from <http://repository.usfca.edu/ml/1>
- Bernhard, B. J., Lucas, A. F., Jang, D., & Kim, J. (2006). *Responsible gaming device research report*. Las Vegas, NV: University of Nevada.
- Berry, J. (2013). *Bulking up: The 2013 Colloquy loyalty census*. Retrieved from [http://www.colloquy.com/files/2013 COLLOQUY Census Talk White Paper.pdf](http://www.colloquy.com/files/2013_COLLOQUY_Census_Talk_White_Paper.pdf)
- Blaszczynski, A., Collins, P., Fong, D., Ladouceur, R., Nower, L., Shaffer, H. J., ... Venisse, J. L. (2011). Responsible gambling: General principles and minimal requirements. *Journal of Gambling Studies*, 27, 565–573.
- Blaszczynski, A., Gainsbury, S., & Karlov, L. (2014). Blue gum gaming machine: An evaluation of responsible gambling features. *Journal of Gambling Studies*, 30, 697–712.
- Blaszczynski, A., Ladouceur, R., & Shaffer, H. J. (2004). A science based framework for responsible gambling: The Reno model. *Journal of Gambling Studies*, 20, 301–317.
- Boldero, J. M., Bell, R. C., & Moore, S. M. (2010). Do gambling activity patterns predict gambling problems? A latent class analysis of gambling forms among Australian youth. *International Gambling Studies*, 10, 151–163.
- Braverman, J., & Shaffer, H. J. (2012). How do gamblers start gambling: Identifying behavioural markers for high risk internet gambling. *European Journal of Public Health*, 22, 273–278.
- Browne, M., Langham, E., Rawat, V., Greer, N., Li, E., Rose, J., ... Best, T. (2016). *Assessing gambling related harm in Victoria: A public health perspective*. Melbourne: Victorian Responsible Gambling Foundation.
- Cigliano, J., Georgiadis, M., Pleasance, D., & Whalley, S. (2000). The price of loyalty. *McKinsey Quarterly*, 4, 68–77.
- Collins, S. E., Carey, K. B., & Sliwinski, M. J. (2002). Mailed personalized normative feedback as a brief intervention for at risk college drinkers. *Journal of Studies on Alcohol*, 63, 559–567.
- Dominici, G., & Guzzo, R. (2010). Customer satisfaction in the hotel industry: A case study from Sicily. *International Journal of Marketing Studies*, 2, 3–12.
- Dowling, G. R., & Uncles, M. (1997). Do customer loyalty programs really work? *Sloan Management Review*, 38, 71–82.
- Drèze, X., & Nunes, J. C. (2009). Feeling superior: The impact of loyalty program structure on consumers' perceptions of status. *Journal of Consumer Research*, 35, 890–905.

- Drèze, X., & Nunes, J. C. (2011). Recurring goals and learning: The impact of successful reward attainment on purchase behaviour. *Journal of Marketing Research*, 48, 268–281.
- Ehrenberg, A. S. C., Goodhardt, G., & Hammond, K. (1994). The after effects of price related consumer promotions. *Journal of Advertising Research*, 35, 11–21.
- Ferguson, R. (2006). Using private label credit cards as a loyalty tool. *Journal of Consumer Marketing*, 25, 374–378.
- Forsström, D., Hesser, H., & Carlbring, P. (2016). Usage of a responsible gambling tool: A descriptive analysis and latent class analysis of user behaviour. *Journal of Gambling Studies*, 32, 889–904.
- Forsström, D., Jansson Fröjmark, M., Hesser, H., & Carlbring, P. (2017). Experiences of playscan: Interviews with users of a responsible gambling tool. *Internet Interventions*, 8, 53–62.
- Gainsbury, S., & Blaszczynski, A. (2012). Harm minimisation: Gambling. In R. Pates & D. M. Riley (Eds.), *Harm reduction in substance use and high risk behaviour: International policy and practice* (pp. 263–278). West Sussex: Blackwell Publishing.
- Gainsbury, S. M. (2011). Player account based gambling: Potentials for behaviour based research methodologies. *International Gambling Studies*, 11, 153–171.
- Gómez, B. G., Arranz, A. M. G., & Cillán, J. G. (2012). Drivers of customer likelihood to join grocery retail loyalty programs. An analysis of reward programs and loyalty cards. *Journal of Retailing and Consumer Services*, 19, 492–500.
- Greenstein, D. (2012). How casinos target problem gamblers. *The Fix*. Retrieved from: <http://www.thefix.com/content/casinos-target-gambling-addicts7650?page=all>
- Griffiths, M. D., Wood, R. T., & Parke, J. (2009). Social responsibility tools in online gambling: A survey of attitudes and behaviour among internet gamblers. *Cyberpsychology & Behaviour*, 12, 413–421.
- Haefeli, J., Lischer, S., & Schwarz, J. (2011). Early detection items and responsible gambling features for online gambling. *International Gambling Studies*, 11, 273–288.
- Haycock, J., Lewis, S., McLeod, C., & Thomas, S. L. (2012). 'They are working every angle': A qualitative study of Australian adults' attitudes towards, and interactions with, gambling industry marketing strategies. *International Gambling Studies*, 12, 111–127.
- Hlavinka, K., & Sullivan, J. (2011, April). The billion member march: The 2011 colloquy loyalty census Growth and trends in loyalty program membership and activity. *Colloquy Talk*. Retrieved from http://www.colloquy.com/files/2011_COLLOQUY_Census_Talk_White_Paper.pdf
- Hodgins, D. C., Schopflocher, D. P., Martin, C. R., El Guebaly, N., Casey, D. M., Currie, S. R., ... Williams, R. J. (2012). Disordered gambling among higher frequency gamblers: Who is at risk? *Psychological Medicine*, 42, 2433–2444.
- Hollingshead, S. J., & Wohl, M. J. A. (2017). *Casino loyalty program membership increases perceived spend among disordered gamblers (via desire to become an informed player)*. Manuscript submitted for publication.
- Hull, C. L. (1932). The goal gradient hypothesis and maze learning. *Psychological Review*, 39, 25–43.
- Independent Gambling Authority. (2012). Inducements. *Codes of Practice Review*, 3, 1–7.
- Kim, H. S., Wohl, M. J., Stewart, M. J., Sztainert, T., & Gainsbury, S. M. (2014). Limit your time, gamble responsibly: Setting a time limit (via pop up message) on an electronic gaming machine reduces time on device. *International Gambling Studies*, 14, 266–278.
- Kim, Y., Cho, M. H., & Han, H. (2014). Testing the model of hotel chain frequency program members' loyalty intentions. *Asia Pacific Journal of Tourism Research*, 19, 35–60.
- Kivetz, R., Urminsky, O., & Zheng, Y. (2006). The goal gradient hypothesis resurrected: Purchase acceleration, illusionary goal progress, and customer retention. *Journal of Marketing Research*, 43, 39–58.
- Larimer, M. E., & Neighbors, C. (2003). Normative misperception and the impact of descriptive and injunctive norms on college student gambling. *Psychology of Addictive Behaviours*, 17, 235–243.

- Leenheer, J., VanHeerde, H., Bijmolt, T., & Smidts, A. (2007). Do loyalty programs really enhance behavioural loyalty? An empirical analysis accounting for self selecting members. *International Journal of Research in Marketing*, 24, 31–47.
- Liu, Y. (2007). The long term impact of loyalty programs on consumer purchase behaviour and loyalty. *Journal of Marketing*, 71, 19–35.
- Liu, Y., & Yang, R. (2009). Competing loyalty programs: Impact of market saturation, market share, and category expandability. *Journal of Marketing*, 73, 93–108.
- Lucas, A. F., & Bowen, J. T. (2002). Measuring the effectiveness of casino promotions. *International Journal of Hospitality Management*, 21, 189–202.
- Lucas, A. F., Dunn, W. T., & Singh, A. K. (2005). Estimating the short term effect of free play offers in a Las Vegas Hotel Casino. *Journal of Travel & Tourism Marketing*, 18, 53–68.
- Lucas, A. F., & Kilby, J. (2008). *Principles of casino marketing*. Norman, OK: Okie International.
- Lucas, A. F., & Santos, J. (2003). Measuring the effect of casino operated restaurant volume on slot machine business volume: An exploratory study. *Journal of Hospitality & Tourism Research*, 27, 101–117.
- Mägi, A. W. (2003). Share of wallet in retailing: The effects of customer satisfaction, loyalty cards and shopper characteristics. *Journal of Retailing*, 79, 97–106.
- Marfels, C. (2010). Complimentaries as an instrument of product promotion in U.S. casinos. *Gaming Law Review and Economics*, 14, 161–164.
- Market Solutions Social Research Group. (2016). *The role of loyalty programs in gambling: Final report of findings from audit of electronic gaming machine gambling venues, literature review, online discussion boards and longitudinal telephone survey*. Melbourne, Australia: Gambling Research Australia.
- McCall, M., & Voorhees, C. (2010). The drivers of loyalty program success: An organizing framework and research agenda. *Cornell Hospitality Quarterly*, 51, 35–52.
- Meyer Waarden, L., & Benavent, C. (2006). The impact of loyalty programmes on repeat purchase behaviour. *Journal of Marketing Management*, 22, 61–88.
- Min, J. H., Raab, C., & Tanford, S. (2016). Improving casino performance through enhanced loyalty programs. *Journal of Hospitality Marketing & Management*, 25, 372–394.
- Mitchell, M. S., Goodman, J. M., Alter, D. A., John, L. K., Oh, P. I., Pakosh, M. T., & Faulkner, G. E. (2013). Financial incentives for exercise adherence in adults: Systematic review and meta analysis. *American Journal of Preventive Medicine*, 45, 658–667.
- Narayanan, S., & Manchanda, P. (2011). *An empirical analysis of individual level casino gambling behaviour* (Report No. 2003 R1). Stanford: Stanford Graduate School of Business.
- Neighbors, C., Lostutter, T. W., Whiteside, U., Fossos, N., Walker, D. D., & Larimer, M. E. (2007). Injunctive norms and problem gambling among college students. *Journal of Gambling Studies*, 23, 259–273.
- Nelson, S. E., LaPlante, D. A., Peller, A. J., Schumann, A., LaBrie, R. A., & Shaffer, H. J. (2008). Real limits in the virtual world: Self limiting behaviour of Internet gamblers. *Journal of Gambling Studies*, 24, 463–477.
- Nisbet, S. (2005). Responsible gambling features of card based technologies. *International Journal of Mental Health and Addiction*, 3, 54–63.
- Nunes, J. C., & Drèze, X. (2006). Your loyalty program is betraying you. *Harvard Business Review*, 84, 124–131.
- Palmer, R., & Mahoney, E. (2005). Winners and losers: Segmenting a casino loyalty programme. *International Gambling Studies*, 5, 271–287.
- Philander, K. S. (2013). Identifying high risk online gamblers: A comparison of data mining procedures. *International Gambling Studies*, 14, 53–63.
- Prentice, C., & Wong, I. A. (2015). Casino marketing, problem gamblers or loyal customers? *Journal of Business Research*, 68, 2084–2092.
- Productivity Commission. (2010). *Gambling* (Report no. 50). Canberra: Author.
- Responsible Gambling Council. (2013). *Responsible gambling best practices for player incentives: Land based venues*. Retrieved from http://www.responsiblegambling.org/rg_news_research/

- rgc centre/insight projects/docs/default source/research reports/responsible gambling best practices for player incentives land based venues
- Sands Rewards (n.d.) *Earn & redeem*. Retrieved from <https://www.sandsrewards.com/earn more redeem more.html>
- Schellinck, T., & Schrans, T. (2007). *Assessment of the behavioural impact of the responsible gaming device (RGD) features: Analysis of Nova Scotia player card data The Windsor trial*. Halifax, NS: Nova Scotia Gaming Foundation.
- Schottler Consulting. (2009). *Major findings of a trial of a card#based gaming product a the Redcliffe RSL: Card#based trial evaluation*. August 2008 to February 2009. Adelaide: Department of Treasury and Finance.
- Schottler Consulting. (2010). *Major findings and implications: Player tracking and precommitment trial*. Brisbane: Gambling Research Australia.
- Sharp, B., & Sharp, A. (1997). Loyalty programs and their impact on repeat purchase loyalty patterns. *International Journal of Research in Marketing*, 14, 473-486.
- Shi, Y., Prentice, C., & He, W. (2014). Linking service quality, customer satisfaction and loyalty in casinos: Does membership matter? *International Journal of Hospitality Management*, 40, 81-91.
- Shook, R. L. (2003). *Jackpot! Harrah's winning secrets of customer loyalty*. Hoboken, NY: John Wiley.
- Shugan, S. M. (2005). Brand loyalty programs: Are they shams? *Marketing Science*, 24, 185-193.
- Simpson, R. (2012). Gambling: A unique policy challenge. *Healthcare Quarterly*, 15, 7-9.
- Stewart, M. J., & Wohl, M. J. A. (2013). Pop up messages, dissociation, and craving: How monetary limit reminders facilitate adherence in a session of slot machine gambling. *Psychology of Addictive Behaviour*, 27, 268-273.
- Sztainert, T., Wohl, M. J. A., McManus, J. F., & Stead, J. D. (2014). On being attracted to the possibility of a win: Reward sensitivity (via gambling motives) undermines treatment seeking among pathological gamblers. *Journal of Gambling Studies*, 30, 901-911.
- Tanford, S., Raab, C., & Kim, Y. S. (2011). The influence of reward program membership and commitment on hotel loyalty. *Journal of Hospitality & Tourism Research*, 35, 279-307.
- Thomas, J., Newman, M., & Oliver, S. (2013). Rapid evidence assessments of research to inform social policy: Taking stock and moving forward. *Evidence & Policy: A Journal of Research, Debate and Practice*, 9, 5-27.
- Torrubia, R., Avila, C., Molto, J., & Caseras, X. (2001). The sensitivity to punishment and sensitivity to reward questionnaire (SPSRQ) as a measure of Gray's anxiety and impulsivity dimensions. *Personality and Individual Differences*, 31, 837-862.
- Victorino, L., Verma, R., Plaschka, G., & Dev, C. (2005). Service innovation and customer choices in the hospitality industry. *Managing Service Quality*, 15, 555-576.
- Wardle, H. (2016). *People who play machines in bookmakers: Secondary analysis of loyalty card survey data*. Report prepared for the Responsible Gambling Trust. London: Responsible Gambling Trust.
- Wardle, H., Excel, D., Ireland, E., Ilic, N., & Sharman., S. (2014). *Report 2: Identifying problem gambling Findings from a survey of loyalty card customers*. Report prepared for the Responsible Gambling Trust. London: Responsible Gambling Trust.
- Williams, R. J., West, B. L., & Simpson, R. I. (2012). *Prevention of problem gambling: A comprehensive review of the evidence* (Report). Guelph, ON: Ontario Problem Gambling Research Centre.
- Williams, R. J., & Wood, R. T. (2004). The proportion of gaming revenue derived from problem gamblers: Examining the issues in a Canadian context. *Analyses of Social Issues and Public Policy*, 4, 33-45.
- Wirtz, J., Mattila, A. S., & Lwin, M. O. (2007). How effective are loyalty reward programs in driving share of wallet? *Journal of Service Research*, 9, 327-334.
- Wohl, M. J., Davis, C. G., & Hollingshead, S. J. (2017). How much have you won or lost? Personalized behavioral feedback about gambling expenditures regulates play. *Computers in Human Behavior*, 70, 437-445.

- Wohl, M. J. A., Santesso, D. L., & Harrigan, K. (2013). Reducing erroneous cognition and the frequency of exceeding limits among slots players: A short (3 minute) educational animation facilitates responsible gambling. *International Journal of Addiction and Mental Health, 11*, 409–423.
- Wohl, M. J. A., Sztainert, T., & Young, M. M. (2013). The CARE model: How to improve industry government health care provider linkages. In D. Richards, L. Nower, & A. Blaszczynski (Eds.), *Handbook of disordered gambling* (pp. 263–282). New York: Wiley Blackwell.
- Wong, I. A. (2013). Exploring customer equity and the role of service experience in the casino service encounter. *International Journal of Hospitality Management, 32*, 91–101.
- Wood, R., & Wohl, M. J. A. (2015). Assessing the effectiveness of a responsible gambling focused behavioural feedback tool for reducing the gambling expenditure of at risk players. *International Gambling Studies, 15*, 324–339.
- Yani de Soriano, M., Javed, U., & Yousafzai, S. (2012). Can an industry be socially responsible if its products harm consumers? The case of online gambling. *Journal of Business Ethics, 110*, 481–497.
- Young, M. M., & Wohl, M. J. A. (2009). The gambling craving scale: Psychometric validation and behavioural implications. *Psychology of Addictive Behaviours, 23*, 512–522.
- Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science, 28*, 67–85.
- Zeng, Z. L., & Prentice, C. (2014). A patron, a referral and why in Macau casinos – The case of Mainland Chinese gamblers. *International Journal of Hospitality Management, 36*, 167–175.