On being loyal to a casino: The interactive influence of tier status and disordered gambling symptomatology on attitudinal and behavioral loyalty

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ABSTRACT

Background and Aims: Casino loyalty programs are marketing strategies designed to foster attitudinal (i.e., identification and satisfaction) and behavioral (i.e., spending) loyalty among gamblers by offering rewards to members. Casino loyalty programs use a tier-based structure to segment members who spend more money into higher tiers, where they receive better rewards (compared to lower tiered members). Tier-based structures may encourage increased expenditure among patrons, especially among players living with a gambling disorder. The current work aimed to examine whether tier status and disordered gambling symptomatology interact to predict attitudinal and behavioral loyalty. *Methods:* Study 1 used a cross-sectional design to examine whether tier status and disordered gambling symptomatology interact to predict self-reported loyalty among a sample of American casino loyalty program members ($N = 396$). In Study 2, archival player account data from Canadian casino loyalty program members ($N = 649$) were analyzed to examine whether tier status and disordered gambling symptomatology interact to predict objective measures of behavioral loyalty. *Results:* The greatest effect of tier status on attitudinal and behavioral loyalty was observed among non-problem gamblers in the highest tiers. Tier status, however, did not influence loyalty among members high in disordered gambling symptomatology. *Discussion:* Results suggest that once gambling has become problematic, loyalty programs may not influence player attitudes and behaviors. Non-problem gamblers may be particularly susceptible to the tiered structure of the programs. *Conclusion:* Non-problem gamblers may benefit from casino loyalty programs in the short-term but longitudinal research is needed to understand the long-term influence of membership.

KEYWORDS

casino loyalty programs, disordered gambling, attitudinal loyalty, behavioral loyalty, tier status

INTRODUCTION

A central task for companies in a competitive marketplace is to implement strategies that harness both attitudinal (i.e., emotional attachment) and behavioral (i.e., patronage) loyalty from their existing customers (Uncles, Dowling, & Hammond, 2003). However, this can prove difficult 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, variability in the types of games a casino can offer (e.g., poker, blackjack, slots) is low. Thus, casinos have focused considerable attention on developing a belief among their customers that continued patronage has added value.

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Loyalty programs are the most ubiquitous means by which the gambling industry attempts to create attitudinal and behavioral loyalty among players (Shook, 2003). Program members receive reward points for every dollar spent gambling, which can be redeemed for, among other things, more time on the device. Moreover, by spending more money at the casino, members can advance to higher tiers of the program where they receive more and better rewards. As a result, some researchers and policy-makers have expressed concern that loyalty programs in the gambling industry fuel excessive gambling, particularly among people living with a gambling disorder who are more likely to enroll in such programs (Delfabbro & King, 2021; Prentice & Wong, 2015). Herein, we report two studies that assessed whether tier status and disordered gambling symptomatology interact to predict attitudinal and behavioral loyalty.

Disordered gambling, behavioral conditioning, and loyalty programs

According to the Pathways Model (Blaszczynski & Nower, 2002), classical and operant conditioning are central to habitual gambling. Specifically, people with gambling addiction are addicted to the act of gambling itself; they become conditioned to the rewards (e.g., wins) received whilst gambling (Nower & Blaszczynski, 2017). Loyalty programs may be problematic because they increase the player's opportunity for reward (see Greenstein, 2012). Players are first reinforced from the contingencies of gambling games (i.e., reinforcement due to random wins and losses) and again by the rewards received through their program. Loyalty programs may thus be a vehicle for the development of disordered gambling.

The primary purpose of a loyalty program is to foster a strong relationship between a brand and its customers by increasing both attitudinal and behavioral loyalty (Dowling & Uncles, 1997). Attitudinal loyalty represents a customer's level of trust, satisfaction, and identification with a brand (Baloglu, 2002; Gomez, Arranz, & Cillán, 2006), whereas behavioral loyalty refers to a customer's repeat purchasing behavior (Dick & Basu, 1994; Jones & Taylor, 2007). To develop both types of loyalty, loyalty programs offer members tangible (e.g., prizes) and intangible (e.g., special privileges) rewards for purchasing goods and services. Most loyalty programs have tiers in which members receive different (and better) rewards when they achieve a higher tier status. It is believed that segmentation into tiers enhances a customers' sense of identification and satisfaction with the company, particularly among members in higher tiers (Brashear-Alejandro, Kang, & Groza, 2016; Market Solutions Social Research Group, 2016). In casino-based loyalty programs, this may result in problematic gambling.

Social identity theory (Tajfel & Turner, 1979) argues that part of people's sense of self is derived from their membership in groups. Membership in and identification with high-status groups renders psychological benefits (e.g., increases self-worth; Bettencourt, Charlton, Dorr, & Hume, 2001). Applied to loyalty programs, higher tier status should

result in greater identification and satisfaction with the casino that offers the loyalty program (i.e., greater attitudinal loyalty; see Wohl, 2018). It should also be positively associated with behavioral loyalty. Indeed, theorists in both economics and marketing have argued that the desire to achieve and maintain higher tier status is a driver of purchasing behavior (i.e., behavioral loyalty; Duesenberry, 1952; Mathies & Gudergan, 2012; McCall & Voorhees, 2010). Barsky and Tzolov (2010), for example, found that members with elite status in a casino loyalty program were willing to spend more money than players who did not have elite status.

The motivation to belong to high status groups may lead casino loyalty members to accelerate their spending as they approach the points needed to achieve a higher tier – an instantiation of Hull's (1932) goal-gradient hypothesis. Additionally, higher tier players are motivated to maintain a high level of play to avoid being bumped down to a lower status should their play decrease in frequency or spend. Maintaining one's high status requires sustained high-frequency play. Should such play result in the player spending more than they can afford, they may be at risk for developing a gambling disorder (see Hodgins et al., 2012). Moreover, people living with a gambling disorder tend to be sensitive to reward (see Sztainert, Wohl, McManus, & Stead, 2014). The premium rewards offered to members of higher tiers may elevate the attitudinal and behavioral loyalty among disordered gamblers (Wohl, 2018). In this light, the greatest attitudinal and behavioral loyalty may be observed among those in the highest tiers of a loyalty program and who are high in disordered gambling symptomatology.

However, because those living with a gambling disorder are already behaviorally conditioned to gambling, their attitudinal and behavioral loyalty may have no room to grow. Instead, tier status may have its most pronounced effect on attitudinal and behavioral loyalty among gamblers who have no or few symptoms of disordered gambling. Such players likely have not yet become behaviorally conditioned and thus may be particularly affected by the double exposure to rewards they get from the game and being a member of a higher tier of a loyalty program. If this is the case, the greatest values of attitudinal and behavioral loyalty may be observed among players who are in the highest tiers of the program, but report few (or no) symptoms of disordered gambling. We tested these competing hypotheses in two studies.

Study materials, data, and supplemental analyses for Studies 1 and 2 are available at Open Science Framework (OSF): https://osf.io/sjxrt/?view_only=b6d5e99711f844738fa0c7c020da4d34.

STUDY 1

The purpose of Study 1 was to examine whether tier status in a casino loyalty program and disordered gambling symptomatology interact to predict attitudinal and self-reported behavioral loyalty.

Method

Participants and Procedure. Based on an a priori power analysis (and to ensure a sufficient sample size across loyalty program tiers), 473 American MTurk participants were recruited. Participants completed a short screener to determine their eligibility. Recruitment stipulated participants must belong to either Caesars Total Rewards or Penn National's Marquee Rewards (see OSF for a description of each program as they were at time of data collection). These programs were selected because they were two of the largest loyalty programs in the United States with similarly structured loyalty programs (at the time the study was conducted). Although we explicitly sought players who were members of either the Caesars Total Rewards or Marquee Rewards programs, we included other casino programs in our demographic questionnaire as an attention check. Those who did not indicate Caesars or Marquee Rewards membership were deemed ineligible. Remuneration was US$1.00.

Thirty-four participants withdrew from the study. Additionally, 41 participants were removed from the analyses because they did not complete the variables of interest (23), did not indicate one of the two target loyalty programs when asked to indicate their loyalty program's name (10), provided poor quality data (e.g., reported they were dishonest in their responses; 6), or were an outlier in terms of the amount of time they took to complete the survey (i.e., ±2 *SD*; 4). The final sample (*N* = 396; 49.7% female; M_{age} = 36.15, *SD* = 10.93) was mostly comprised of Caesars Total Rewards members (71.2%).

Measured variables

Tier Status was assessed with a self-report item. Those who reported being in one of the top three tiers of the Marquee Rewards' five-tier program were collapsed into a single *high tier status* group. Among those who reported membership in Caesars Total Rewards, *high tier status* consisted of participants in the top two tiers of the four-tier program. Participants who reported being in one of the first two tiers of either program were collapsed into a *low tier status* group. The distinction between high and low tiers was based on whether participants were in a high enough tier that they were provided intangible rewards (e.g., access to a player's lounge).

Disordered Gambling Symptomatology was assessed with the widely used 9-item Problem Gambling Severity Index (PGSI; Ferris & Wynne, 2001, pp. 1–59). Item responses ranged from 0 (*never*) to 3 (*almost always*). A participant's PGSI score was the sum of the nine items. As suggested by Ferris and Wynne (2001, pp. 1–59), we categorized participants with a summed score of 0 as no risk gamblers, 1–2 as low-risk, 3–7 as moderate-risk, and 8–27 as high-risk gamblers.

Attitudinal loyalty was assessed using 19 items. Response options were on a Likert scale anchored at *1 (strongly disagree)* to *7 (strongly agree)*. A factor analysis yielded a two-factor solution (see OSF for all items and full

reporting of the factor analysis). The first factor comprised seven items (α = 0.91) measuring identification with the loyalty program. The second factor comprised seven items (α = 0.93) measuring satisfaction with the program. Five items did not load on either factor. Higher scores represented higher levels of identification and satisfaction with the casino loyalty program.

Behavioral loyalty was determined based on self-reported hours gambled, number of visits, and money spent gambling with their loyalty card in the past 30 days.

Participants also completed additional measures for exploratory purposes (see OFS: https://osf.io/sjxrt/?view_only=b6d5e99711f844738fa0c7c020da4d34).

Statistical analyses

A 2 × 4 (tier status: low, high; PGSI category: no, low, moderate, high-risk) multivariate analysis (MANOVA) was conducted to examine the effect of tier status, disordered gambling category and their interaction term on identification and satisfaction with the program as the dependent variables (i.e., attitudinal loyalty). A second 2 × 4 (tier status by PGSI category) MANOVA was conducted with the number of hours, number of visits and amount of money spent (i.e., behavioral loyalty) used as the dependent variables. Tier status and disordered gambling symptomatology were positively correlated, Cramer's V = 0.26, *P* < 0.001.

Ethics

The study was conducted in accordance with the Declaration of Helsinki and received ethical clearance from the authors' home institution. All participants were informed about the study and provided consent.

Results

There were no statistically significant differences between the Caesars Total Rewards and Marquee Rewards loyalty programs, thus loyalty program affiliation was collapsed in all reported results. Univariate and multivariate main effects are available on OSF (https://osf.io/sjxrt/?view_only=b6d5e99711f844738fa0c7c020da4d34).

Attitudinal loyalty. There was a significant omnibus multivariate effect of the interaction between tier status and disordered gambling symptomatology, Pillai's Trace = 0.05, $F(6, 764) = 3.18$, $P = 0.004$, $\eta^2 = 0.02$. Univariate analyses indicated that the interaction between tier status and disordered gambling symptomatology was significant for identification with the loyalty program, $F(3, 382) = 3.42$, $P = 0.02$, $\eta^2 = 0.03$, but not for satisfaction with the program, $F(3, 382) = 0.18$, $P = 0.91$, $\eta^2 = 0.001$. Simple effects analyses of the interaction on identification with the loyalty program indicated that among no-risk, low-risk and moderate-risk gamblers, members in higher tiers identified more with their loyalty program compared to their similar counterparts (i.e., members with similar levels of symptomatology) in the lower tiers ($ps \leq 0.003$). For high-risk gamblers however, members in higher and lower tiers were
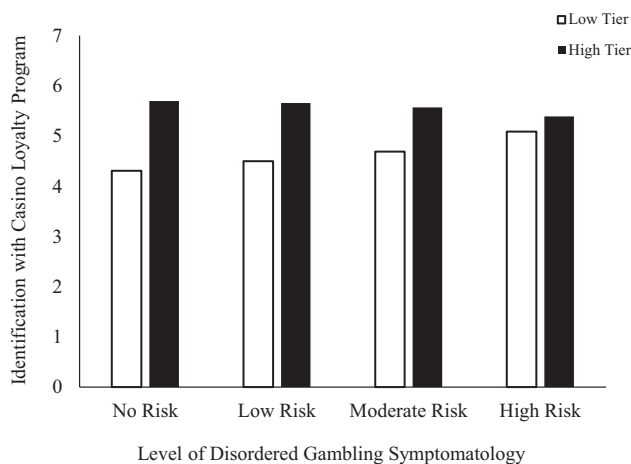
Fig. 1. Mean differences in identification with casino loyalty program by tier status and level of disordered gambling symptomatology
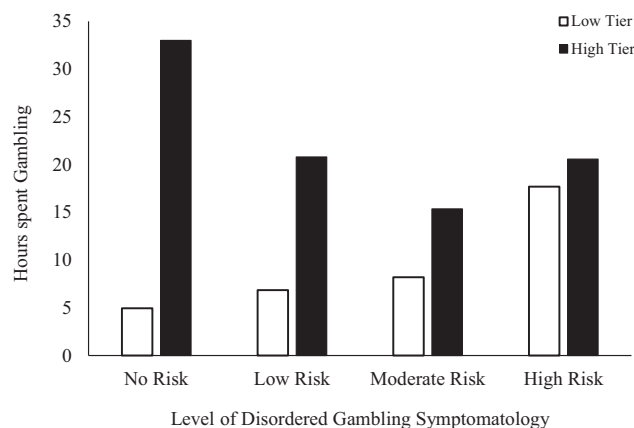

Fig. 2. Mean differences in hours spent gambling at loyalty program-affiliated casinos by tier status and level of disordered gambling symptomatology

equal in identification with the loyalty program ($P = 0.16$; see Fig. 1 and Table 1).

Behavioral loyalty. Reported money spent gambling over the past 30 days ranged from \$0 to \$60000. To reduce the influence of outliers, extreme scores above the 95th percentile were recoded to be equal to the 95th percentile score (i.e., \$5,000). Additionally, the data were checked for univariate and multivariate outliers. Although some outliers were observed, results were unchanged when the outliers were removed. For the purpose of retaining statistical power, the reported analyses include all available data. There was a significant multivariate effect of the interaction between tier status and disordered gambling, Pillai's Trace = 0.06, $F(9, 1,140) = 2.74$, $P = 0.004$, $\eta^2 = 0.02$. At the univariate level, the interaction only had a significant effect on hours spent

gambling in the past month, $F(3, 380) = 3.81$, $P = 0.01$, $\eta^2 = 0.03$. The interaction was not significant for dollars spent, $F(3, 380) = 0.23$, $P = 0.87$, $\eta^2 = 0.002$, or visits in the past month, $F(3, 380) = 2.12$, $P = 0.10$, $\eta^2 = 0.02$. Simple effects analyses for the significant interaction on hours spent gambling indicated that among moderate and high-risk gamblers, there was no effect of tier status ($ps > 0.19$). However, the effect of tier was significant for no risk and low risk gamblers. Among no- and low-risk gamblers, those with high tier status spent more time at the casino than their counterparts with low tier status, $ps < 0.01$ (Table 1 and Fig. 2).

Discussion

As predicted, tier status and disordered gambling symptomatology interacted to predict attitudinal and behavioral loyalty. High tier status members, with no-, low- and

Table 1. Means and Standard Deviations for all behavioral and attitudinal loyalty measures separated by level of disordered gambling symptomatology and tier status for Study 1

	Disordered Gambling Symptomatology Level							
	None		Low		Moderate		High	
	Low Tier ($N = 63$)	High Tier ($N = 11$)	Low Tier ($N = 98$)	High Tier ($N = 15$)	Low Tier ($N = 73$)	High Tier ($N = 17$)	Low Tier ($N = 69$)	High Tier ($N = 43$)
Dependent Variables	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Attitudinal								
Identification	4.31*	5.70*	4.50*	5.66*	4.69*	5.57*	5.09	5.39
	(1.16)	(0.71)	(1.07)	(0.64)	(1.13)	(0.95)	(1.09)	(1.09)
Satisfaction	5.19	5.52	5.08	5.68	4.99	5.32	5.00	5.37
	(1.00)	(1.23)	(1.07)	(1.15)	(1.11)	(1.34)	(1.03)	(1.09)
Behavioral								
Hours	4.95*	33.00*	6.86*	20.80*	8.21	15.35	17.68	20.56
	(11.58)	(58.45)	(10.10)	(21.57)	(18.54)	(13.51)	(23.06)	(28.33)
Dollars	229.94	1,509.09	453.78	1,300.00	537.05	1,452.94	1,382.06	2,352.46
	(440.16)	(1843.65)	(834.29)	(1,330.41)	(1,009.76)	(1,297.17)	(1,620.26)	(2,194.62)
Visits	1.79	5.55	1.96	3.60	1.93	4.47	5.13	11.93
	(5.49)	(8.47)	(2.74)	(3.78)	(3.71)	(4.21)	(4.55)	(16.81)

*Represent significant mean differences between low and high tier status within each category of PGSI ($P < 0.05$).

moderate-risk levels of disordered gambling reported higher levels of identification with the loyalty program relative to their counterparts in the lower tiers. In contrast, high tier status members with high levels of disordered gambling symptomatology were not more identified with the loyalty program than low tier status members with high levels of disordered gambling symptomatology. A similar pattern of results was observed with behavioral loyalty. High tier status members with moderate to high levels of disordered gambling symptomatology were not more behaviorally loyal compared to similar members in lower tiers. However, no risk and low risk gamblers in higher tier levels were more behaviorally loyal than members of equal symptomatology in lower tiers. These results suggest that high tier status members with no or lower levels of disordered gambling symptomatology (i.e., those who have yet to become conditioned to gambling) may be particularly sensitive to the rewards that high tier membership provides, with the net result being higher levels of attitudinal and behavioral loyalty. Conversely, those who have already been behaviorally conditioned (i.e., people with a gambling disorder) may not be additionally conditioned by the rewards received by virtue of their higher tier membership.

STUDY 2

A limitation of Study 1 was that behavioral loyalty was assessed with self-reported gambling expenditures. However, players poorly recall of the amount of money they spend gambling (see Wohl, Davis, & Hollingshead, 2017). In Study 2, we sought to replicate and extend the results of Study 1 using player account data from a community sample of Canadian casino loyalty program members.

Method

Participants, Procedure and Measured Variables. As part of a larger study (see *BLINDED FOR REVIEW*), Ontario Lottery and Gaming (OLG) provided the research team with behavioral loyalty (i.e., number of visits and amount of money wagered on electronic gambling machines (EGMs) over a 30-day period) and tier status data from players ($N = 649$; 60.6% females) who were members of their Winners Circle casino loyalty program. Data were limited to players who had: 1) played at a program-affiliated casino at least three times in the past three months, 2) had won or lost at least $100 in that period, and 3) were at least 18 years of age. Participants in the top tier of the program were coded as *high tier status* and those in the bottom two tiers were coded as *low tier status*. A link to an online survey was sent to these players via OLG's player listserv. Among other measures, they completed an online survey that contained the PGSI (see in Study 1). Participants received a $30 multi-purpose gift card as remuneration.

Statistical analysis

A 2×4 (Tier status: low, high; PGSI: no, low, moderate, high-risk) MANOVA was conducted to examine the effect

of tier status, disordered gambling symptomatology and their interaction on members' behavioral loyalty. Visits to the casino and money wagered served as the two correlated dependent measures of behavioral loyalty ($r = 0.48$, $P < 0.001$). Sensitivity analyses revealed that given the sample size, the study was sufficiently powered to detect effect sizes equal to or greater than $\eta^2 = .01$. Tier status and disordered gambling symptomatology were positively correlated (Cramer's V = 0.22, $P < 0.001$).

Results

As in Study 1, extreme scores were recoded to be equivalent to the score at the 95th percentile (i.e., $65000). After recoding extreme scores, the data were checked for univariate and multivariate outliers. After removing outliers, the pattern of results remained unchanged, therefore all cases are included in the reported analyses. Univariate and multivariate main effects are available on OSF.

We observed a significant multivariate interaction between tier status and disordered gambling symptomatology on behavioral loyalty (Pillai's Trace = 0.02, $F(6, 1,270) = 2.49$, $P = 0.02$, $\eta^2 = 0.01$). Univariate analyses results indicated that the interaction effect was significant for number of visits, $F(3, 635) = 3.08$, $P = 0.03$, $\eta^2 = 0.01$, and amount wagered, $F(3, 635) = 2.75$, $P = 0.04$, $\eta^2 = 0.01$. Simple effects analyses revealed no significant difference in the number of visits to the casino between high tier, high-risk gamblers and low tier, high-risk gamblers ($P = 0.08$). However, high tier status members with no-, low- and moderate-risk levels of disordered gambling visited the casino more than low tier members with similar symptomatology. Of note, the largest effect of tier status on visits was observed among no risk members ($\eta^2 = 0.08$). In terms of the amount of money wagered, the effect of tier was significant at all four levels of symptomatology ($ps < 0.001$), with members in higher tiers wagering more money than those in lower tiers. However, the largest effect of tier on amount wagered was observed among the no risk group ($\eta^2 = 0.24$) with smaller effects observed among the low-risk, moderate-risk and high-risk symptomatology groups ($\eta^2 < 0.22$; Table 2).

Discussion

As in Study 1, the strongest effect of tier status on behavioral loyalty (i.e., casino visits and money spent on gambling) was observed among those with no or low levels of disordered gambling symptomatology. In contrast to Study 1, high tier status members, who were high in disordered gambling symptomatology wagered more money than their similar counterparts in the lower tiers. That there was not a similar effect in Study 1 may be due to the known tendency for players to underestimate the amount of money they have lost gambling when asked to subjectively recall their gambling expenditure (see Wohl et al., 2017). For this reason, Study 2 arguably provides a stronger (and more accurate) test of our hypotheses than Study 1 due to the use of the objective player data.
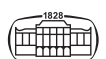
Table 2. Means and standard deviations for all behavioral loyalty measures separated by level of disordered gambling symptomatology and tier status for Study 2

Variable	Disordered Gambling Symptomatology Level							
	None		Low		Moderate		High	
	Low Tier (N = 177) M (SD)	High Tier (N = 53) M (SD)	Low Tier (N = 167) M (SD)	High Tier (N = 101) M (SD)	Low Tier (N = 45) M (SD)	High Tier (N = 50) M (SD)	Low Tier (N = 26) M (SD)	High Tier (N = 24) M (SD)
Visits	9.96* (7.52)	20.60* (10.88)	11.01* (8.65)	16.49* (10.92)	10.78* (7.66)	19.06* (11.51)	10.58 (9.33)	15.17 (9.07)
Amount Wagered	5,451.22* (4,976.48)	33,445.02* (20,185.46)	7,170.15* (6,413.48)	28,388.95* (19,011.05)	7,746.94* (7,528.04)	30,141.23* (18,812.82)	8,375.86* (10,115.06)	35,649.62* (22,467.13)

*Represent significant mean differences between low and high tier status within each category of PGSI ($P < 0.05$).

GENERAL DISCUSSION

We examined whether attitudinal and behavioral loyalty to a casino loyalty program may be a product of tier status and disordered gambling symptomatology. Prior to doing so, we outlined two competing hypotheses. One hypothesis was that higher tier status would be predictive of higher levels of both attitudinal and behavioral loyalty among members with elevated disordered gambling symptomatology because people with a gambling disorder tend to be sensitive to reward (see Sztainert et al., 2014). A competing hypothesis was that because people living with a gambling disorder are already behaviorally conditioned to the act of gambling, the rewards offered through casino loyalty programs may have little-to-no influence on attitudinal and behavioral loyalty. Instead, high tier status and the rewards received as a result should have the greatest predictive utility for the attitudinal and behavioral loyalty of members who self-report no or few symptoms of disordered gambling.

Results from both Studies 1 and 2 provided support for our second hypothesis. Results from Study 1 showed that the effect of tier status on identification with the casino loyalty program was strongest among non-problem gamblers in the top tiers. We also found that players with no or few symptoms of disordered gambling reported greater behavioral loyalty when in the higher compared to lower tiers of a loyalty program (Study 1), and player account data obtained from a loyalty program (Study 2) replicated this effect. These results support the idea that although non-problem gamblers have yet to become behaviorally conditioned to gambling, they may be particularly sensitive to the rewards received through their loyalty program. The result being higher levels of attitudinal and behavioral loyalty to the program compared to their low tier status, non-problem counterparts.

Of note, however, high tier status gamblers who reported no symptoms of disordered gambling reported similar levels of attitudinal and behavioral loyalty as gamblers with high levels of disordered gambling in either high or low tiers. Some players in the highest tiers may be high frequency, non-problem gamblers (Hodgins et al., 2012). If these players are able to gamble at a high frequency and not experience problems, they may benefit from the rewards offered to high tier members without experiencing harm (e.g., emotional or financial distress). It may also be the case that those classified as "no risk gamblers" in higher tiers may be understating or denying their symptoms (Horch & Hodgins, 2008). Importantly, gambling games have inherently addictive structural characteristics (Turner & Horbay, 2004). Thus, the rewards granted to members through casino loyalty programs may combine with the rewards inherently received through gambling (i.e., wins) to increase disordered gambling over time, especially among current non-problem gamblers. For this reason, non-problem gamblers in high tiers may be at a greater risk for subsequently developing problems with their gambling. Further research is required to assess whether there are any long-term effects of high tier status membership among non-problem gamblers.

Lastly, we found that members high in disordered gambling symptoms who are in the highest tiers are spending a considerable amount of money gambling. These results are in line with findings from Delfabbro and King (2021) who reported that problem gamblers used loyalty cards more frequently than recreational gamblers. Regulators may want to consider encouraging the industry to identify high tier status loyalty program members at risk for disordered gambling to put in place infrastructure to help them decrease their gambling expenditure or seek professional care.

LIMITATIONS

Some limitations of the current research should be noted. First, the sample size for members in the high tiers in both studies was small. This is to be expected given it takes a great deal of spending to achieve top tier status. It would behoove researchers to target these players to better understand their play behavior and gambling habits (e.g., amateur or professional gamblers), as well as other factors that may predict whether their high level of spend is harmful.

Second, the behavioral data recorded in Study 2 only examined expenditure on EGMs. Money wagered on other

forms of casino gambling were not recorded. The findings from the current work should be replicated using measures of behavioral loyalty that includes expenditure on all forms of gambling. Lastly, given the cross-sectional design used in both Studies 1 and 2, we are unable to rule out the possibility that loyalty, tier status and disordered gambling symptomatology are mutually reinforcing. Initial loyalty may encourage players to spend more time and money gambling, and increased play may lead to both higher tier status and disordered gambling. Longitudinal research on the effect of loyalty program membership on gambling behavior over time is required.

CONCLUSION

The results from two studies indicated that the effect of tier status on attitudinal and behavioral loyalty was strongest among members low in disordered gambling symptomatology. Non-problem gamblers who had achieved higher tier status spent more money gambling and were more attitudinally loyal than members of similar symptomatology in lower tiers. The effect of tier status on loyalty was smallest among members high in disordered gambling symptoms, suggesting the rewards received at higher tier levels have little influence on the loyalty of high-risk players. Importantly, although members with low levels of disordered gambling and high tier status may benefit from program membership in the short-term, it is unknown whether they will be particularly vulnerable to increasing their gambling expenditure over time to maintain (or increase) their tier status.

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