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Population trends in Internet sports gambling

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Abstract

The Internet is a controversial new medium for gambling. This study presents the first longitudinal analysis of online gambling participation and activity among a population of newly subscribed Internet bettors. Our analyses indicate that this population of gamblers adapted to the new subscription service rapidly, as evidenced by quickly developing declines in population participation, number of bets, and size of stakes. Adaptation was not uniformly evident in our population. Among subgroups of heavily involved bettors, adaptation was generally slower or not apparent. Rather than adapt, involved bettors often maintained the high level of betting they escalated to in the days following subscription. This was particularly evident for one type of game: live-action betting. These involved individuals and the effect of live-action play require close scrutiny and ongoing examination.

Keywords: Gambling; Public health; Internet

1. Population trends in Internet sports gambling

Ten years ago, the division on addictions published the first meta-analytically derived estimates of lifetime and past year pathological gambling for the United States and Canada (Shaffer & Hall, 2001; Shaffer, Hall, & Vander Bilt, 1997; Shaffer, Hall, & Vander Bilt,

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1999). Those point-in-time estimates indicated that 1–2% of the adult population met criteria for lifetime pathological gambling. Subsequent updates incorporating international research (Stucki & Rihs-Middel, 2007) indicate little change in these rates. Some research indicates that rates of gambling-related problems among segments of the population that gamble are higher (Gerstein et al., 1999); however, researchers still are narrowing in on the prevalence of pathological gambling in society at-large and among gamblers and other vulnerable populations (Shaffer, LaBrie, LaPlante, Nelson, & Stanton, 2004). The most recent estimate from a nationally representative survey in the United States (Petry, Stinson, & Grant, 2005) found lower population rates (i.e., 0.4%) of lifetime pathological gambling within the general population than those generated by the original meta-analyses; nevertheless, even these lower rates represent a substantial number of individuals.

The aforementioned studies provide the prevalence of respondents who, at one point-in-time, self-reported the number of gambling-related problems they experienced during certain time periods. The findings illustrate the extent of gambling and gambling-related problems in society. However, isolated retrospective self-reports are limited in terms of what they can tell us about changes in gambling behavior that occur over time, and, in response to individual or environmental events, such as new gambling opportunities. Studies that utilize a prospective design can provide detailed information about the intricacies of both internally and externally influenced behavior change.

Most of the available temporally-related research presents point-in-time estimates of self-reported gambling and gambling-related problems before and after events considered likely to produce changes, such as casino openings and lottery expansion (Costello, Compton, Keeler, & Angold, 2003; Govoni, Frisch, Rupcich, & Getty, 1998; Grun & McKeigue, 2000; Jacques & Ladouceur, 2006; Jacques, Ladouceur, & Ferland, 2000; LaBrie, Nelson et al., 2007; LaPlante & Shaffer, 2007; Room, Turner, & Ialomiteanu, 1999; Wallisch, 1996). The information provided by these studies is mixed; some studies indicate increases in gambling and gambling-related problems, others indicate no change or inconsistent patterns over time (LaPlante & Shaffer, 2007). One reason the available temporally-related research might be inconsistent is because it relies on self-reported gambling behavior. The validity and reliability of self-reported behavior is often uncertain (National Research Council., 1999) and different types of self-report can conflict for the same information (Jacques & Ladouceur, 2006; Shaffer et al., 2004).

To date, there has been no research illustrating population, or population segment, gambling trends in real time. Consequently, although the existing studies have provided important information about the effect of environmental changes on individuals' perceptions of gambling and gambling-related problems, they cannot illustrate with specificity real time changes in actual gambling in a population.

1.1. Present research

Some forms of gambling are more amenable to the study of real time gambling behavior than others. For example, machine games, such as video lottery terminals (VLTs), can be equipped with player tracking software to collect real time gambling behavior over long periods of time. Those VLT systems with central registries can even track player behavior across machines and gambling locations. Similarly, the Internet provides a unique opportunity to record and explore actual gambling behavior because many companies record all gambling and non-gambling online activity using web-based technology. Examining actual

gambling behavior avoids well-known issues related to retrospective self-reports (e.g., poor recall, self-presentation strategies, etc.), and provides an unbiased record of population trends in gambling activity.

In this paper, we present the first real time longitudinal analysis of Internet gambling behavior among a population of new subscribers to an online gambling service, which specializes in sports betting. This population is of interest for several reasons: (a) the worldwide ramifications of recent congressional legislation defining Internet sports gambling as illegal in the United States (i.e., the Unlawful Internet Gambling Enforcement Act); (b) the paucity of empirical research related to Internet gambling (e.g., Division on Addictions., 2007; Griffiths, 2001; Ialomiteanu, Adlaf, & M., 2002; LaBrie, LaPlante, Nelson, Schumann, & Shaffer, 2007; LaBrie, Shaffer, LaPlante, & Wechsler, 2003; Ladd & Petry, 2002; Petry & Mallya, 2004; Woodruff & Gregory, 2005); and (c) there are no longitudinal studies of actual Internet gambling activity. This study examines daily records of actual Internet gambling activities prospectively observed over a period of 18 months.

1.2. Hypotheses

Popular opinions hold that Internet gambling is a particularly virulent form of gambling, which will have profound adverse effects on the population. People have argued that certain characteristics specific to Internet gambling present additional risks for developing gambling problems, such as the lack of control over participants, the immediacy of access, and the ready availability of a wide range of types of gambling opportunities (e.g., Bulkeley, 1995; Federal Trade Commission, 2003; General Accounting Office., 2002; Griffiths, 1999, 2003; Griffiths, Parke, Wood, & Parke, 2006; Mitka, 2001). If it is correct that these characteristics are especially dangerous, we would expect to observe enduring or escalating gambling activity over time among new Internet gambling service subscribers.

Enduring or escalating betting trends should be especially evident for gambling propositions that might exaggerate the potentially dangerous characteristics of Internet gambling (i.e., games that promise relatively quicker action at any time). For Internet sports gambling, live-action betting (i.e., bets made on real time propositions about outcomes within a sporting event), as opposed to fixed-odds betting (i.e., bets made on the outcomes of sporting events or games), might have more chance of inducing this effect. Online gambling that does not involve sports betting (i.e., casino-type games) might exceed even live-action in this respect; however, the investigation of Internet casino games is beyond the scope of this paper and we refer the reader to LaBrie, Kaplan, LaPlante, Nelson, and Shaffer (in press).

2. Methods

2.1. Sample

This research cohort included all persons ($N = 47{,}603$) who registered with the Internet betting service provider, *bwin* Interactive Entertainment AG (*bwin*), during February 2005. In this cohort, some players received promotional funds, but everyone in the sample deposited and played with their own monies. We monitored bettors for the next 18 calendar months, until August 31, 2006. We excluded persons who did not start to gamble until one month before the end of the study period (i.e., started gambling after July 31, 2006)

and persons who did not wager on sports during the study period. We further excluded persons who evidenced having exceptional financial means, because *bwin* exempted this subgroup from company-imposed deposit limits, which could allow for non-representative betting behaviors ($N = 6$).

The final sample for the analysis included 46,339 sports bettors, 42,590 (91.9%) men and 3749 (8.1%) women who reported ages ranging from 14 to 105 years (Mean = 30.36, SD = 9.86) from 84 countries, with the majority (57.5%) from Germany. Most bettors played both fixed-odds and live-action propositions at least once ($n = 30{,}642$; 66.1%); 14,961 (32.3%) played fixed-odds only, and 736 (1.6%) played live-action only.

2.2. Measures

Gambling behavior measures included aggregates of betting activity (i.e., number of bets and monies wagered per calendar day for both fixed-odds and live-action betting) for each bettor during the 18-month observation period.

2.3. Procedures

We conducted a secondary data analysis of an 18-month subscriber database obtained from *bwin*. We received approval from our institutional review board to conduct secondary data analyses of the available information.

2.3.1. Analyses

To generate population-level data, we first computed the number of bets and the sum of monies wagered for each bettor. We did this for each day and for each consecutive 30-day period (i.e., a prototypical "month"), starting with the individual's registration day. All bettors had at least 18 complete 30-day periods, regardless of when they registered during February. Because not everyone had a complete 19th "month" of observation, we dropped the final month from all analyses, leaving 18 periods of 30 consecutive days, which we refer to as "months" in this report.

Next, we summed the number of bets and monies wagered over the entire sample for each month and each day. We further obtained the number of active persons (i.e., persons who had at least one bet on fixed-odds or live-action in a given month or on a given day). All analyses use these sample-level sums and thus refer to betting activity during the first, second, third etc. month or day, as defined by registration day, rather than calendar dates. That is, month 1 is comprised of a range of 30-day period calendar dates that depend on population members' registration date.

We present population trends of betting activity over time for fixed-odds and live-action in the total sample and in the subgroup of the most involved bettors (MIB). As empirically justified by a scree-type analysis of centile plots (LaBrie, LaPlante et al., 2007), we defined the subgroup of MIBs as the top 1% of the sample regarding the variables of interest (i.e., number of bets and sum of monies staked). This strategy yielded four non-exclusive MIB groups: fixed-odds number of bets (FO-B; $n = 456$), fixed-odds amount of stakes (FO-S; $n = 454$), live-action number of bets (LA-B; $n = 310$), and live-action amount of stakes (LA-S; $n = 313$). We examined correlation matrices of the gambling behavior measures for months and days, fixed-odds and live-action betting, and gambling behavior measures and time.

3. Results

3.1. Betting activity: full sample

We examined the monthly and daily patterns for the total monies wagered (i.e., Stake), total number of bets (i.e., Bets), and total number of active persons (i.e., *N* Valid) using the full sample. The various measures of betting activity within game (i.e., FO and LA) all correlated at greater than .91 (Table 1), indicating that patterns of activity on all three measures were very similar. Fixed-odds and live-action betting in the full sample also correlated with each other for the various measures of betting activity (Table 2), indicating that patterns of fixed-odds and live-action activity were similar over time. For the full sample, correlations indicated decreasing gambling activity and participation over time, for both months and days (Table 3). Graphical illustration of betting activities over time shows that the greatest betting activities of the sample occurred during the very first

Table 1
Correlation matrices for fixed-odds and live-action betting behavior in the full sample

	Stake	Bets	*N* valid
Fixed-odds			
Stake	1.00	0.96	0.97
Bets	0.99	1.00	0.99
N valid	0.99	0.98	1.00
Live-action			
Stake	1.00	0.93	0.91
Bets	0.94	1.00	0.99
N valid	0.91	0.98	1.00

Values above the diagonals are days and values below the diagonals are months. For all correlations, $p < .001$.

Table 2
Correlations between fixed-odds and live-action betting behavior by time in the full sample

	Stake	Bets	*N* valid
Months	0.93	0.97	0.99
Days	0.78	0.88	0.97

For all correlations, $p < .001$.

Table 3
Correlations of fixed-odds and live-action betting behavior with time by type of game in the full sample

	Stake	Bets	*N* valid
Fixed-odds			
Months	-0.65^{**}	-0.65^{**}	-0.58^{*}
Days	−0.94	−0.96	−0.95
Live-action			
Months	-0.72^{**}	-0.59^{*}	-0.53^{*}
Days	−0.73	−0.83	−0.89

Unless otherwise indicated, for all correlations, $p < .001$.
* $p < .05$.
** $p < .01$.

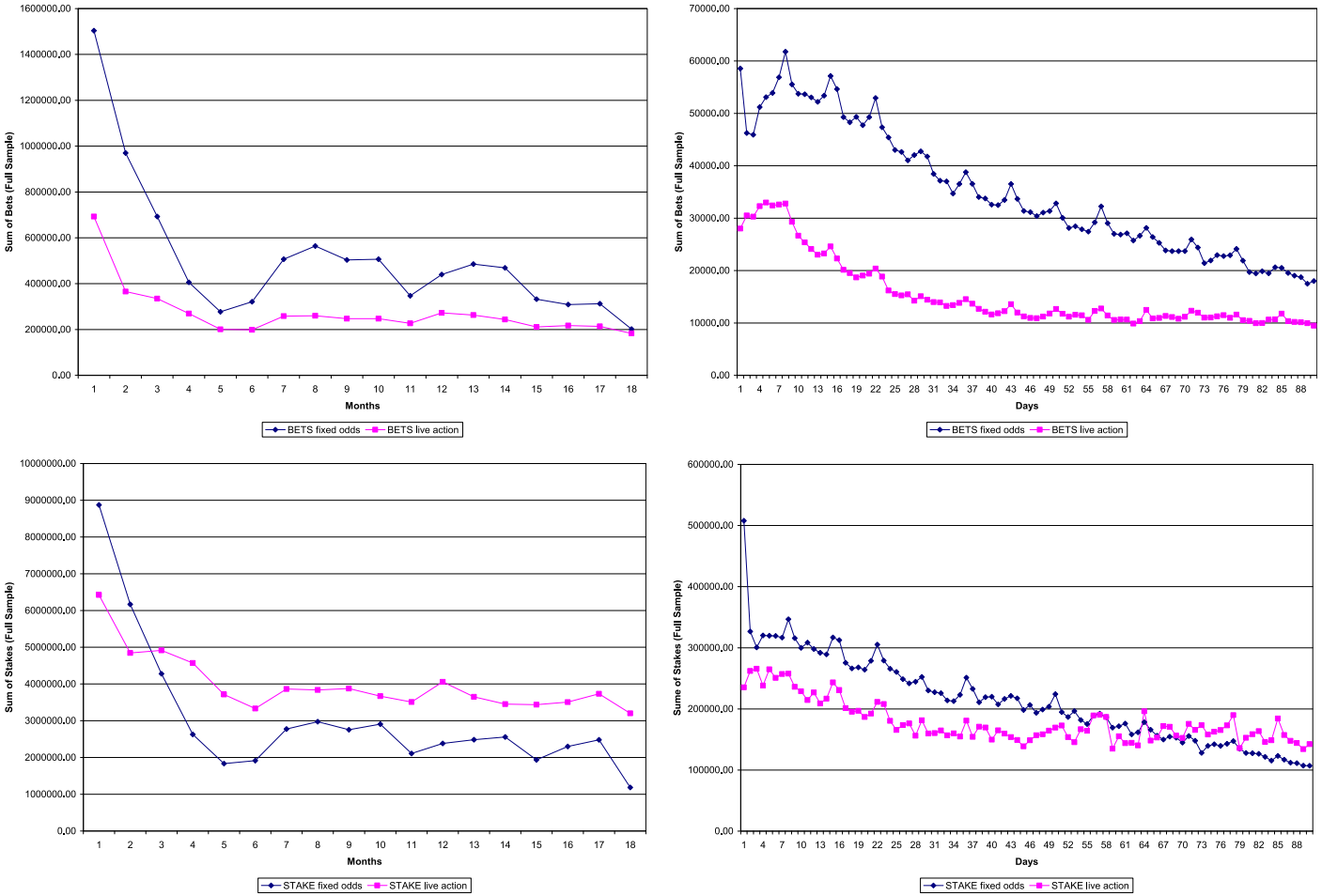

Fig. 1. Number of bets and Sum of stakes on fixed-odds and live-action by month and day for the full sample.

month, followed by a sharp decrease in betting activities during the first 6 months (Fig. 1). Thereafter, the activity fluctuated around a slightly increased level.

We examined the daily patterns of gambling behavior during the first 90 days to determine if the monthly analyses obscured any short-term trends. In general, the daily patterns confirmed that the highest betting activity of the sample occurred almost immediately, followed by a short increase for Bets (i.e., about one week), and then broader decreases in betting activity. All gambling behavior measures for fixed-odds and live-action betting showed the highest activity no later than on the eighth day. The daily patterns revealed periodic increases in betting activity about every seven days. This pattern was most evident for bets. The declines in betting activity were greater for fixed-odds than for live-action betting.

3.2. Betting activity: most involved bettors (MIBs)

We analyzed the patterns of betting activity (i.e., Stake and Bets) and participation (i.e., *N* Valid) separately for the four groups of MIBs: fixed-odds number of bets (FO-B); fixed-odds amount of stakes (FO-S); live-action number of bets (LA-B); and live-action amount of stakes (LA-S). As with the full sample, the vast majority of measures of betting activity within game (i.e., FO or LA) correlated with each other; however, unlike the full sample, the range of correlations for live-action betting was greater among the MIB groups (Table 4). In contrast with the full sample analyses, some correlations in the MIB analyses were quite small. The smallest correlation ($r = .09$) was between the number of active participants and the daily sums of live-action stakes over 18 months for the FO-S MIBs. Hence, for the complete sample the number of active bettors was nearly synonymous with the other measures. Interestingly, when we look at the MIB groups, we do not find this dominance of *N* Valid.

Compared to the full sample, betting activity on the two games over time was less consistent for the MIB groups (Table 5). Nevertheless, for most groups and variables FO *N* Valid rates and LA *N* Valid rates correlated over time. Hence, although MIB groups tended to be active on FO and LA on the same days/months, betting activity on these types of games was not necessarily synchronous (i.e., 10 of 16 correlations indicated no significant relationship between betting activities).

We observed declines in FO betting across the 18 months study period for all MIB groups (Table 6). However, the trends in LA betting across the 18 months were less consistent, and often increasing. For example, the FO-B group exhibited increases in LA Stakes and Bets over the course of the study period. Similarly, the FO-S and LA-B groups showed increases in LA Stakes during the same period. One exception was a decrease in LA Bets for the LA-S group.

During the first 90 days, FO betting activity also was inconsistent among MIBs; and, as in the analyses across months, we observed substantial increases in betting activity for a number of variables. Most notable are the increases in Bets and Stakes for the LA-B and LA-S groups, respectively. Finally, although the number of active players over time decreased for monthly and daily analyses in the full sample, the number of active MIB players did not change over time in a consistent way. Monthly and daily patterns of live-action and fixed-odds betting often conflicted for the MIB. For example, the FO-B group experienced significant decreases in FO participation across the study period, but there was no temporal relationship with LA participation during that time. Conversely,

this group evidenced no relationship between FO participation and time during the first 90 days, but showed a significant increase in LA participation during this period.

The patterns in the subgroups of the MIBs were markedly different from the full sample and each other (Figs. 2 and 3). For the two MIB Bets groups (i.e., FO-B & LA-B), compared to the generally decreasing monthly trends of fixed-odds activity, which included broad fluctuations, the monthly patterns of live-action betting were relatively flat or increasing. A closer examination revealed increasing trends in FO Bets for both groups

Table 4
Correlation matrices for fixed-odds and live-action betting behavior in the most involved bettor subgroups

	Stake	Bets	*N* valid
FIXED-ODDS			
FO-B			
Stake	1.00	0.76	0.66
Bets	0.87	1.00	0.75
N valid	0.88	0.89	1.00
FO-S			
Stake	1.00	0.79	0.78
Bets	0.82	1.00	0.69
N valid	0.85	0.92	1.00
LA-B			
Stake	1.00	0.62	0.59
Bets	0.82	1.00	0.55
N valid	0.80	0.91	1.00
LA-S			
Stake	1.00	0.40	0.47
Bets	0.88	1.00	0.50
N valid	0.83	0.94	1.00
LIVE-ACTION			
FO-B			
Stake	1.00	0.33**	0.29**
Bets	0.78	1.00	0.48
N valid	0.42ns	0.64**	1.00
FO-S			
Stake	1.00	0.39	0.46
Bets	0.48*	1.00	0.50
N valid	0.09ns	0.70	1.00
LA-B			
Stake	1.00	0.82	0.80
BETS	0.80	1.00	0.88
N valid	0.74	0.87	1.00
LA-S			
Stake	1.00	0.62	0.76
Bets	0.61**	1.00	0.62
N valid	0.55*	0.91	1.00

Values above the diagonals are days and values below the diagonals are months. Unless otherwise indicated, for all correlations, $p < .001$. ns = not significant.
* $p < .05$.
** $p < .01$.

Table 5
Correlations between fixed-odds and live-action betting behavior by time in the most involved bettor subgroups

	Stake	Bets	*N* valid
FO-B			
Months	−0.02ns	0.31ns	0.82
Days	0.32**	0.03ns	0.50
FO-S			
Months	−0.41	0.56*	0.87
Days	0.48	0.08ns	0.25*
LA-B			
Months	−0.34ns	0.35ns	0.35ns
Days	0.10ns	0.23*	0.38
LA-S			
Months	−0.09ns	0.65**	0.75
Days	0.02ns	−0.12ns	−0.07ns

Unless otherwise indicated, for all correlations, $p < .001$. ns = not significant.
* $p < .05$.
** $p < .01$.

Table 6
Correlations of fixed-odds and live-action betting behavior with time by type of game in the full sample

	Stake	Bets	*N* valid
FIXED-ODDS			
FO-B			
Months	−0.51*	−0.50*	−0.54*
Days	0.18ns	0.47	0.09ns
FO-S			
Months	−0.72**	−0.65**	−0.77
Days	−0.15ns	0.04ns	−0.41
LA-B			
Months	−0.69**	−0.68**	−0.68**
Days	−0.01ns	0.22*	−0.01ns
LA-S			
Months	−0.76	−0.85	−0.92
Days	−0.22*	−0.29**	−0.46
LIVE-ACTION			
FO-B			
Months	0.66**	0.49*	−0.01ns
Days	0.37	−0.01ns	0.38
FO-S			
Months	0.53*	0.15ns	−0.43ns
Days	0.36	−0.03ns	0.29**
LA-B			
Months	0.48*	0.20ns	0.38ns
Days	0.86	0.84	0.86
LA-S			
Months	0.04ns	−0.55*	−0.54*
Days	0.76	0.53	0.81

Unless otherwise indicated, for all correlations, <.001. ns = not significant.
* $p < .05$.
** $p < .01$.

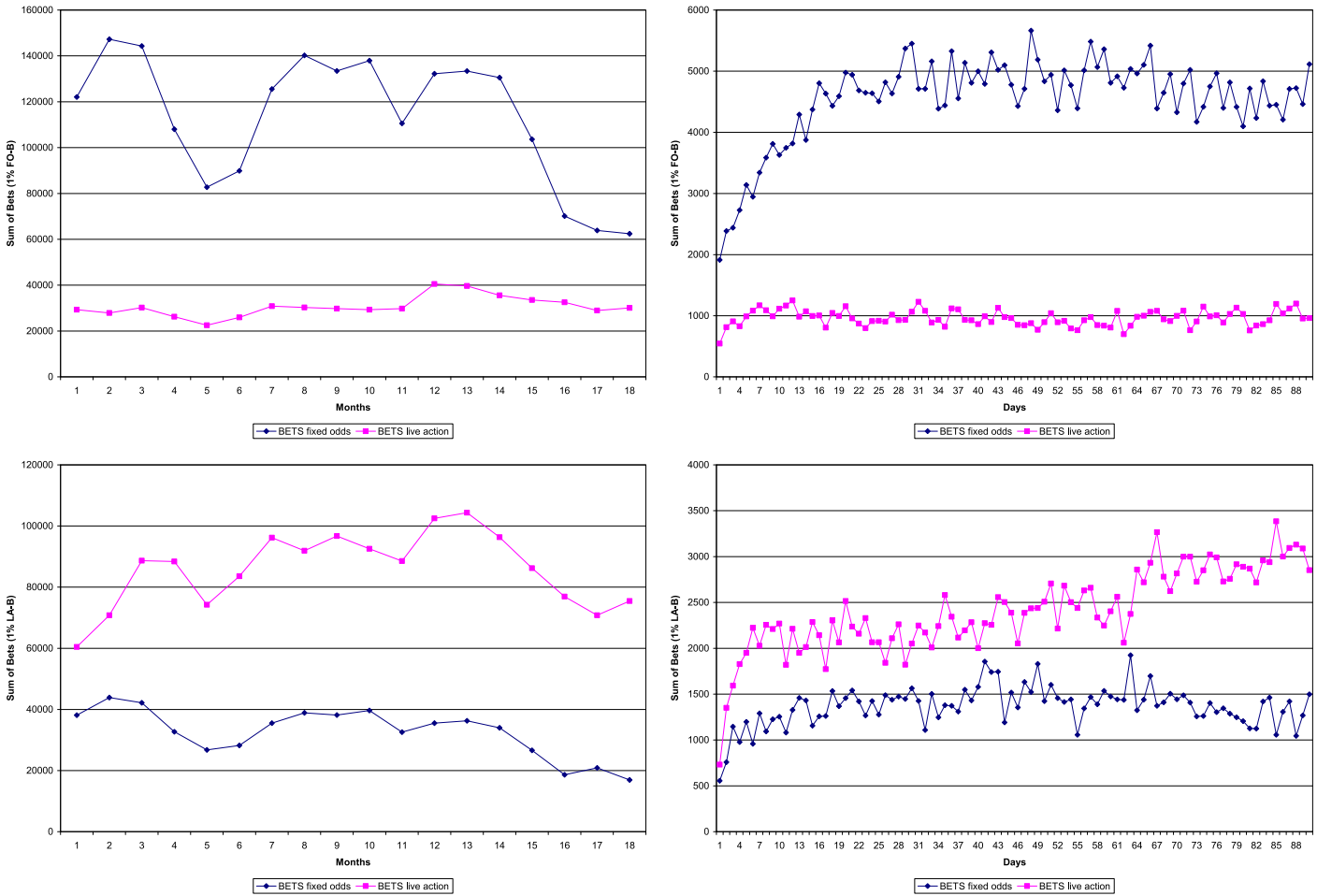

Fig. 2. Number of bets on fixed-odds and live-action by month and day for the most involved bettors on Bets.

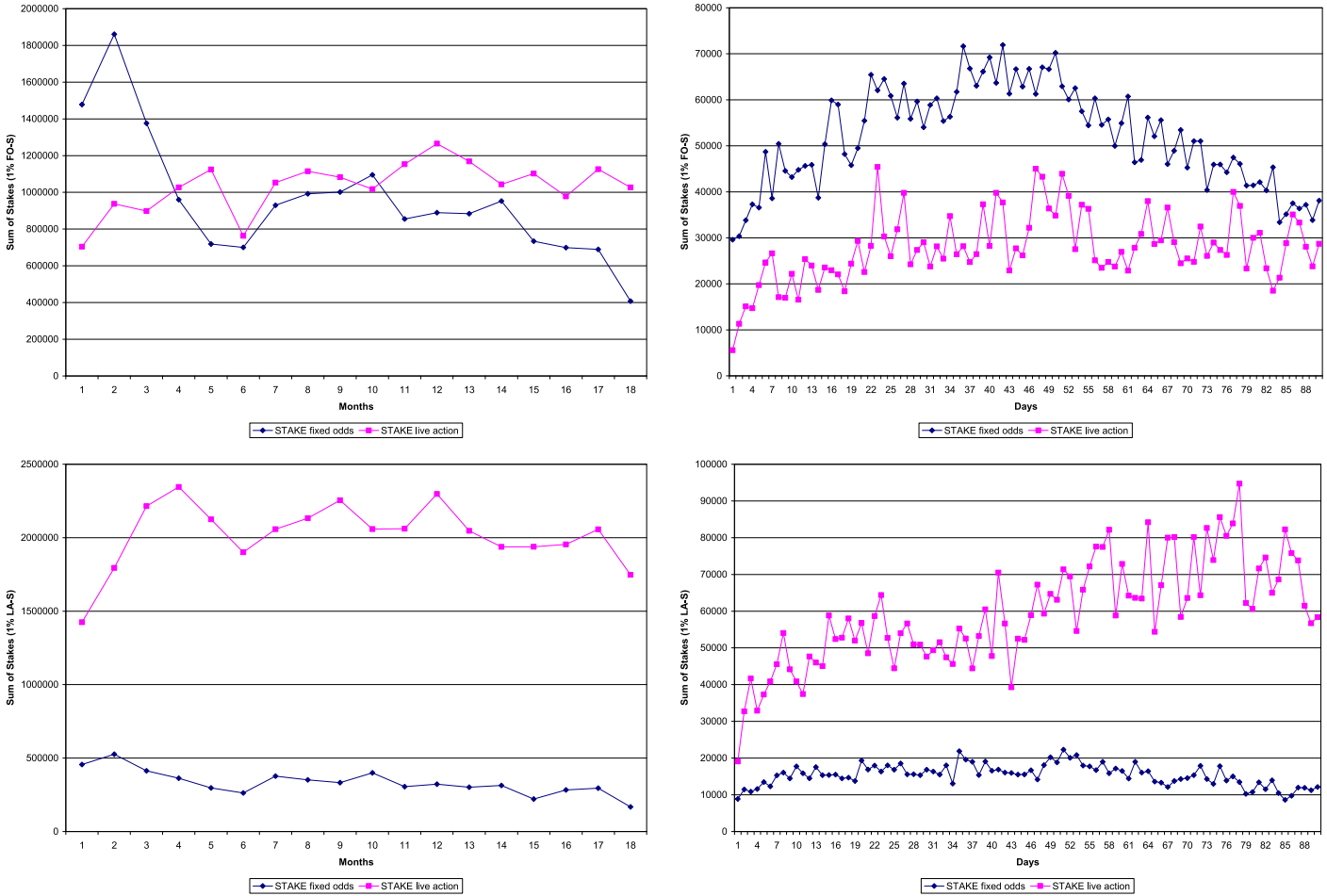

Fig. 3. Number of bets on fixed-odds and live-action by month and day for the most involved bettors on Stake.

during approximately the first 30 days, followed by leveling and indications of decreasing activity. In contrast, whereas LA Bets were unchanged over time for the FO-B group, LA Bets increased steadily during the first 90 days for the LA-B group.

For the two MIB Stakes groups (i.e., FO-S & LA-S), the monthly trends for Stakes were essentially the same as for Bets among the Bets groups. However, trends during the first 90 days were occasionally dissimilar. For example, among the FO-S group, there was a much more dramatic decrease in FO Stakes following an initial increase during approximately the first 30 days – yielding an inverse U-shaped trend. In addition, rather than staying relatively flat, during this time LA Stakes increased for the FO-S group. Trends for the LA-S groups and LA-B groups on Stakes and Bets, respectively, were similar.

4. Discussion

This study presents the first longitudinal analysis of real time Internet sports gambling behavior for a large sample of newly subscribed gamblers. Patterns of gambling behavior in our population were consistent for activity (i.e., number of bets and size of stakes) and for games (i.e., FO and LA). There were, however, notable magnitude differences over time for games: the number of bets people made for FO always exceeded those for LA, and by the third month of the study period, the amount of stakes placed on LA bets always exceeded those for FO. In other words, the population cumulatively made fewer, but larger bets on LA compared to FO. Any changes in population-level observations over time might be attributable to subscriber attrition in our population.

In the introduction, we speculated that LA betting might be riskier than FO betting. These results lend some support to this speculation because the population made fewer, but larger LA wagers. Alternatively, the results might only reflect the better odds and smaller cost of gambling on LA games (nearly 50/50). People might be wagering more on LA games because they have a greater statistical likelihood of winning. It is worth noting that earlier research indicated that fewer subscribers participated in LA than FO betting (LaBrie, LaPlante et al., 2007); so, the small number of people involved in LA betting was likely to be responsible for these higher rates.

We observed decreasing trends of gambling behavior over time. This was true for monthly and daily analyses. Actual participation (i.e., *N* Valid) also declined uniformly and most obviously during the first 90 days. Consequently, we did not find evidence to support concerns that Internet gambling will overwhelm populations of gamblers, causing escalating rates of participation, or even sustained rates of participation. Rather, our daily analyses of gambling activity indicated rapid adaptation to the new service, as illustrated by a short-term increase in activity, peaking by the eighth day of activity and rapidly declining thereafter. This pattern is consistent with prototypical adaptation curves for populations (LaPlante & Shaffer, 2007). The intra-curve peaks in activity occurred every seventh day. This pattern might reflect fan-based betting (i.e., weekly games); similar to the overall pattern for gambling, this weekly cycle also degrades over time after an initial increase in interest. Both LA and FO gambling seemed to reach a fairly stable lower level, around which population activity fluctuated. Longer term analyses will be necessary to provide important information about the stability of these initial findings.

It is important to note that the rapid adaptation observed among this population of gamblers might only generalize to people who already gamble. It is likely that the people who are new subscribers to an Internet service already have some gambling experience in their lifetime; though, there likely will be some exceptions to this rule. On the other hand, the novelty of Internet gambling is more likely the rule, and even those people who gambled previously might not have gambled exactly this way and this conveniently. Additional research on different populations is required to determine whether the observed patterns are specific to gamblers, or might generalize to people who are newly exposed to gambling and/or Internet gambling. Research on gambling exposure effects (LaPlante & Shaffer, 2007; Shaffer, Vander Bilt, & Hall, 1999; Volberg, 2002) suggest that newly exposed people might differ, by taking a longer time to adapt, from people who already gamble.

4.1. Gambling Involvement and gambling behavior over time

We identified and examined four groups of involved bettors: groups of individuals who were in the top 1% of behavioral distributions for FO Bets, LA Bets, FO Stake, and LA Stake. Previous analyses indicated that the cumulative gambling behavior of such involved bettors is distinct from the population as a whole (LaBrie, LaPlante et al., 2007). Our longitudinal analyses were consistent with these analyses. For example, whereas measures of betting activity correlated with each other within the full sample, relationships among these measures were weaker and less consistent for betting activity in the MIB groups. This was particularly evident for LA betting, indicating more independent betting activity. This observation is consistent with a greater focus and attention to the type of game of choice and betting activity among MIB groups.

Compared to the full population, we also observed greater variation in individuals' activities across game types. Whereas stakes and bets were very similar for FO and LA activity in the full sample, in the MIB groups, betting activity on one type of game was relatively independent of activity on the other game. This was apparent even though MIBs, regardless of group, tended to be active or inactive on FO and LA betting at the same time. These findings suggest that individuals who were members of MIB subgroups were not necessarily extreme in all of their betting activity on both games. Unlike in the full population, for MIB groups, elevated activity on one game did not spill over to another game.

The MIB groups also were distinct from the full population in terms of adaptation. That is, we did not always observe evidence of rapid adaptation in the MIB groups. Rather, three of the MIB groups showed escalating patterns of LA gambling behavior during the first 90 days of activity. LA betting was relatively flat during this period for the FO-B group. This contrasts sharply with population analyses, which reveal relatively sharp declines for both FO and LA activity starting by the eighth day of activity, at the latest. Hence, for very involved bettors, participation in LA gambling became increasingly attractive after their initial foray – monthly analyses indicated that these MIBs maintained their interest for the study duration. In contrast, FO behavior did not confirm an escalating trend, but more closely approximated patterns of adaptation, with longer term increases in activity evident, followed by flattening and/or decline. Adaptation, however, was not rapid as in the full sample, and this trend only seemed to emerge after 45 days or so.

4.2. Limitations

Although the findings presented here provide a unique and seminal description of actual Internet sports gambling behavior, some limitations are worth discussing. For example, we cannot determine whether the individuals who subscribed to the betting service subscribed and/or participated in multiple online gambling activities. It is possible that subscribers offset the decreases in gambling activities on this service by going to another service. If this is the case, this study would underestimate our participants' overall Internet gambling activity. We also cannot determine whether multiple individuals used the same gambling service subscription account. If so, the total number of people contributing to sums of bets and stakes would increase. Other information in our database is difficult to verify. For example, the age range for our study included ages 14–105. Although it is certainly possible for individuals of these ages to subscribe and bet, it is also possible that some of the age outliers indicate inaccurate self-reporting by subscribers.

Individuals who comprised our MIB groups could belong to multiple MIB groups. Future research should include in depth analyses of overlap among MIB groups to isolate individuals who fall in the extreme ends of distributions and determine whether their patterns of gambling are distinct from those presented here. Our findings do not specifically address issues related to gambling-related problems. Consequently, the clinical relevance of our findings is not yet known. However, from a public health perspective, the analyses presented here provide researchers, policy-makers, and public health interests with important information about how Internet gambling can influence gambling behavior. Additional studies are necessary to uncover both the implications for psychopathology and other tangible consequences of gambling-related problems, such as ruined finances and social relationships.

4.3. Concluding thoughts

Although there has been much speculation about the nature of Internet gambling and its potential effect on gamblers, to date, research on this topic has been restricted to gamblers' self-reported gambling. At the population-level, this research challenges common assumptions that Internet gambling will stimulate excessive patterns of gambling. This study revealed that new Internet gambling subscribers tended to adapt fairly quickly to betting using the service. However, for individuals who are very involved in Internet gambling (i.e., MIBs), there might still be cause for concern. Adaptation was not uniformly apparent in the population, particularly for one type of game – LA betting. Heavily involved individuals and LA betting warrant closer attention.

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