

Internet Gambling: An Emerging Field of Research

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The fastest growing form of gambling in the world is online gambling. According to a report issued by the American Gaming Association (AGA), nearly 3,000 Internet gambling sites offer wagering on sports, casino games, poker, bingo, lottery and other games.¹ Online gambling has generated approximately \$30 billion in annual revenue. Although legal in 85 countries, the United States has made it illegal to conduct financial transactions online for the purpose of placing a bet or wager. Coupled with the federal Wire Act of 1961, these statutes have been used to combat illegal Internet gambling.

However, the legal landscape in the United States changed dramatically in December 2011 with the U.S. Department of Justice's announcement limiting the Wire Act's applicability to sports betting. This decision gave license to states to make available a wide array of games of chance on the Internet. The result has been a flurry of legislation at both the state and federal level, including bills that would legalize and federally regulate online poker.

As U.S. federal and state government officials debate the legalization of forms of online gambling, questions about the risks of gambling online have been raised by policy makers, clinicians and researchers:

- Is Internet gambling especially attractive to bettors who are predisposed to develop gambling problems?
- Is any kind of online gambling — poker, sports betting or casino games — a risky business even for people not at risk for a gambling problem?
- Does the speed of certain games and the social isolation of online gambling promote excessive gambling?
- Is it possible to encourage responsible gaming among online gamblers?

The only way to answer these questions is to let rigorous, empirical research and peer-reviewed science test the assumptions implicit in these questions — specifically, the conventional wisdom that new technology necessarily increases health risks.

HIGHLIGHTS

- Most publications on the topic are either commentaries — not actual research — or are surveys of limited value because they did not use representative samples.
- Harvard Medical School researchers have studied actual Internet gambling transactions of subscribers to online gambling operator *bwin*.
- Research shows that the overwhelming majority of *bwin* players moderated their gambling behavior as they experienced more losses.

THE STATE OF RESEARCH ON INTERNET GAMBLING

Recently published studies offer a mixed picture of the health risks of online gambling. Most publications on the topic are either commentaries — not actual research — or surveys of limited value because they did not use representative samples. Furthermore, the data collected from the research subjects were based on self-reports of past behavior, a common approach in social science research but one that can be biased by poor memory and other factors.²

On the other hand, the current body of research also includes the pioneering work of Harvard Medical School professor Howard J. Shaffer, Ph.D., and colleagues who have developed new methods for studying online gambling by virtue of their access to the actual wagering transactions of 40,000 online gamblers on the *bwin* website (<http://www.bwin.com>). *bwin*, one of the largest online gaming companies in the world, partnered with Dr. Shaffer and colleagues to record every keystroke of each *bwin* subscriber. Using data from actual gambling patterns, rather than relying on self-report, provides the scientists with “objective detailed information about betting behavior and the conditions under which gamblers place wagers.”^{2(p277)}

This white paper will focus on the analysis of the behavior patterns in the *bwin* data set by Dr. Shaffer and colleagues. For now, this is the most reliable analysis available because it uses real-time data rather than self-report by the gamblers to document their online wagering patterns.

THE HARVARD STUDY ON INTERNET GAMBLING

The Internet gambling findings of Dr. Shaffer and colleagues, the most reliable research available on this topic, indicate that the overwhelming majority of *bwin* players wager “moderately” when compared to the overall patterns of betting behavior for all subscribers. Also, approximately 5 percent of the online gamblers studied appeared to engage in excessive betting behavior patterns in terms of time and money spent. (Note: the study did not screen for gambling problems, and, therefore, it cannot be assumed that the gamblers in this category have been diagnosed with a gambling disorder.) Their overall findings contradict the speculation that online gambling is a public health hazard because of Internet gambling’s easier access and structural characteristics (e.g., speed of play) compared with traditional forms of gaming. Instead, the portrait of Internet gambling emerging from this research appears to be consistent with worldwide prevalence rates of gambling disorders, which range between 1 and 2 percent.³

The following sections summarize the Harvard studies on online poker, sports betting and casino games. It is important to remember that science has yet to determine whether a particular game — online or traditional — has an impact on the development of a gambling disorder.⁴

Online Poker Players

Online poker has been fueled by the explosive popularity of the card game, especially as promoted by televising poker tournaments. Noting the widespread poker-playing opportunities for college students — card playing is one of the top gambling activities at colleges — many have expressed concern that online poker poses a special threat to young people. With these issues in mind, the Harvard researchers produced the first-ever population analysis of the actual gambling behavior evidenced by a large cohort of Internet poker gamblers.⁴ While the study’s participants didn’t identify their ages for this project, the data gives a bigger picture of behavior patterns for online poker players.

The researchers found moderate gambling behaviors in a study of 3,445 Internet poker players, observed over a period of two years.⁵

- As players experienced more losses, they moderated their gambling. This finding suggests that the majority of individuals curbed their gambling based on their wins and losses — exhibiting what might be considered rational betting behavior.
- Specifically, approximately 95 percent of the sample bought a median of 12 euros (approximately \$16 in U.S. dollars) worth of chips at each of two poker sessions per week during a six-month period.
- The “most involved players” (5 percent of those studied) spent more and played more, betting a median of 89 euros (approximately \$115 in U.S. dollars) worth of chips at each of 10 sessions per week.

This study is the first step to understanding the behavioral patterns of online poker players and is foundational to the next step of identifying online poker playing among vulnerable population segments.⁴ Researchers hope to examine the online poker playing patterns of young adults who are of legal age to gamble to determine if their behavior is consistent with these findings.

Internet Sports Bettors

Internet sports gambling involves live-action betting (i.e., bets made on real time propositions about outcomes within a sporting event) and fixed-odds betting (i.e., bets made on the outcomes of sporting events or games).

The Harvard analysis of sports wagering found that the majority of bwin subscribers engage in moderate sports betting, with the median-level player making less than three sports bets of four euros (approximately \$5.25 in U.S. dollars) every fourth day.⁶ This study also revealed that new subscribers tended to adapt fairly quickly to betting online as evidenced by quickly developing declines in overall participation, number and size of bets. However, for the small percentage of individuals who are very involved in Internet gambling there might still be cause for concern. Adaptation to online gambling was not uniformly apparent, particularly for live action betting. The authors recommend maintaining a focus on the impact of such games in future research.⁷

Online Casino Gamblers

As with many online gambling operators, *bwin* offers a variety of casino games to its subscribers such as slots and video poker. The analysis of the 4,222 subscribers who played casino games found that the median betting behavior was to play casino games once every two weeks during a period of nine months.⁶ Subscribers lost a median of 5.5 percent of total monies wagered. Findings suggest that Internet casino betting behavior results in modest costs for most players. For the 5 percent subpopulation of overly involved gamblers, findings confirm the suggestion that identification of problematic gambling behavior needs to move beyond financially-related consequences.⁸

LIMITATIONS OF STUDIES

Despite the international reach of *bwin*, with subscribers in 80 countries, the company does not accept subscribers from the United States, and, therefore, the applicability of these findings to the U.S. market might be limited. However, it is important to a few differences in the prevalence rates of gambling disorders between the U.S. and other countries despite cultural differences, varying levels of exposure to gambling and different research methods.³ This remarkable consistency suggests that neurobiology, for example, might be a factor in the development of a gambling disorder that transcends national borders.

INTERNET GAMBLING AMONG AMERICANS

As a footnote to these studies, it is important to note that studies have shown a low rate of participation in Internet gambling in the U.S., even by young people, the group that conventional wisdom says is most involved in online gambling. One national study surveyed over 10,000 college students and found that about 2.5 percent had ever gambled on the Internet, and only 0.6 percent did so monthly or more regularly.⁹ Another study, published in 2010, found that about 1 percent of college-aged students gambled on the Internet.¹⁰ The National Comorbidity Survey Replication, the landmark study of mental health in the U.S., estimated that only 1 percent of the adult general population gambled online.¹¹ Note that the data from these studies was collected prior to the passage of the Unlawful Internet Gambling Enforcement Act of 2006, which made it illegal for financial institutions in the U.S. to issue payments for online wagers.

TRANSLATING RESEARCH FINDINGS INTO BEST PRACTICES FOR RESPONSIBLE GAMING

Many Internet gambling sites use technology to help players who gamble excessively and might be at risk for the disorder: amount limits, alert messages, self-exclusion programs and easy procedures for closing accounts. To implement and evaluate the effectiveness of such measures, it will be important to identify behavioral markers that may distinguish those with a gambling disorder from all other gamblers. These possible behavioral markers may include placing bets on more days, placing more bets per day and placing larger bets. There are still many challenges to developing this type of system, but behavioral markers may one day allow individuals to avoid problematic gambling behaviors before they start.²

Both the online gaming industry and the field of research on the health risks of this form of gambling are in their infancy. It is, therefore, premature to assume that Internet gambling will have deleterious health effects. The next phase of research will be vital to better understanding how to interpret “disordered” patterns and testing the effectiveness of responsible gaming interventions.

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