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## Pathological Gambling and Bankruptcy

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### Abstract

**Background**—Although prior studies have examined rates of bankruptcy in pathological gambling (PG), there is only limited data regarding the clinical correlates of those with PG who declare bankruptcy due to gambling.

**Method**—517 consecutive subjects with DSM-IV PG (54.7% females; mean age = 47.6) were grouped into two categories: those who had (n=93; 18.0%) and had not (n=424; 82.0%) declared bankruptcy secondary to gambling. Groups were compared on clinical characteristics, gambling severity (using the Yale Brown Obsessive Compulsive Scale modified for Pathological Gambling, Gambling Symptom Assessment Scale; Clinical Global Impression – Severity scale, and time and money spent gambling) and psychiatric comorbidity.

**Results**—Gamblers who had declared bankruptcy were more likely to be single (p=.004), have an earlier age of problem gambling onset (p=.032), and have more financial (p<.001), work-related (p=.006), marital (p<.001), and legal (p<.001) problems secondary to their gambling. They also reported higher rates of depressive disorders (p<.001), substance use disorders (p=.005) and were more likely to be daily users of nicotine (p=.022). Money spent gambling did not differ significantly between groups.

**Conclusion**—These preliminary results suggest that bankruptcy in PG may be associated with specific clinical differences. Treatment strategies may want to assess bankruptcy status to develop more effective treatments that take account of these clinical differences.

### Introduction

A majority Americans, about 86%, report having gambled once in their lifetime (1). Most people gamble for recreational purposes without the behavior becoming a problem. Research studies, however, estimate that 0.4-1.6% of the United States population suffer from pathological gambling (PG) (2,3) a persistent and recurrent maladaptive pattern of gambling behavior (4). PG is commonly associated with relationship problems (5,6), employment issues (7), and significant financial difficulties (7-12).

Because money is the catalyst for gambling behavior, a main financial problem that gamblers face is debt, and debt often leads to bankruptcy. As legalized gambling has increased, so too have the rates of personal bankruptcy filings. Before 1988, Nevada and New Jersey were the only states that had legalized forms of casino gambling (13). In 1999, 48 states allowed some

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form of legalized gambling (14). Between the years of 1980 and 2005, personal bankruptcy filings in the United States increased approximately 350% (8).

There is little research, however, on the relationship between PG and personal bankruptcy. According to the Gambling Impact and Behavior Study, 19.2% of pathological gamblers have filed bankruptcy while only 5.5% and 4.7% of low-risk and at-risk gamblers, respectively, have filed bankruptcy (7). Studies have also shown that 18% to 28% of males and 8% of females attending Gamblers Anonymous have filed bankruptcy (7). Similarly, Breen and Zimmerman (15) found that 18.2% of pathological gamblers had declared bankruptcy with an average debt of \$42,750 (debts ranged from \$17,000 to \$80,000). In a replication study two years later, Breen (16) found that a higher percentage (22.8%) of pathological gamblers had declared bankruptcy with an average debt of \$53,103 (debts ranging from \$5,000 to \$250,000).

Although many individuals with PG face financial problems, the majority do not declare bankruptcy. However, bankruptcy may be an important symptom in PG because it may be a behavioral marker of a more severe variant. In order to better understand and effectively treat problem gambling, it is important to investigate the differences between individuals with PG who do and do not declare bankruptcy. Do gamblers who declare bankruptcy have more financial difficulties or legal problems? Are they more likely to struggle with substance abuse issues? Are they more likely to stick with one type of gambling, rather than multiple forms of gambling? To answer these questions and to obtain a better grasp on the complexity of PG, this current study examined the clinical characteristics of individuals with PG who have and have not declared bankruptcy due to their gambling.

## Methods

### Subjects

517 subjects aged  $\geq 18$  years meeting current (past-year) DSM-IV criteria for PG were included in the sample. Subjects were enrolled in several clinical research trials investigating the effectiveness of pharmacotherapies and psychosocial treatments for PG (17-23). General inclusion and exclusion criteria across all studies included a current DSM-IV-TR diagnosis of PG and the ability to provide written informed consent. Subjects with lifetime psychotic or bipolar disorders were excluded. Other lifetime disorders were not a reason for exclusion. Subjects were recruited over an eight-year period (2000-2008). This investigation was carried out in accordance with the Declaration of Helsinki. The Institutional Review Boards of the University of Minnesota and Butler Hospital approved the studies and the consent statements. All subjects provided written informed consent.

### Assessments

In each of the clinical trials, a semistructured clinical interview was conducted on the first visit in which demographic information and current gambling behaviors were obtained (e.g., types of gambling, amount of money lost). Each subject was evaluated with the Structured Clinical Interview for Pathological Gambling (SCI-PG) (24) and the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) (25).

PG severity was measured using the following reliable and valid instruments: the *Yale-Brown Obsessive-Compulsive Scale Modified for Pathological Gambling (PG-YBOCS)* (26), a 10-item, self-report measure assessing the subject's thoughts and urges to gamble, gambling behavior, and the impact of these symptoms on the individual's life; the *Gambling Symptom Assessment Scale (G-SAS)* (27), a 12-item self-report scale examining gambling urges, thoughts, and behaviors during the previous week; the *Clinical Global Impression (Severity) scale (CGI)* (28), a 7-item, clinician-administered scale assessing overall global

psychopathology from “1” (“not ill at all”) to “7” (“among the most severely ill”), and the *South Oaks Gambling Screen (SOGS)* (29), a 20-item, self-report measure which assesses lifetime gambling symptoms.

Psychosocial functioning was assessed using the *Sheehan Disability Scale (SDS)* (30). The SDS is a three-item, reliable and valid self-report scale that assesses functioning in three areas of life: work, social or leisure activities, and home and family life. Scores on the SDS range from 0 to 30.

A psychiatric history of each subjects’ first-degree relatives with respect to gambling and alcohol use was obtained using a semi-structured interview. A relative was designated a “problem gambling” if their gambling behavior had caused marital, financial, social or occupational problems that were noticeable to the subject or if the relative had reported a loss of control over gambling behavior to the subject. A relative was designated as having an alcohol use disorder if alcohol use had caused marital, financial, social or occupational problems that were noticeable to the subject, if the relative had reported a loss of control over alcohol use to the subject, or if the family member had undergone treatment for alcohol problems.

### Statistical Analysis

The percentage of subjects who declared bankruptcy secondary to gambling was determined, and subjects with and without a history of bankruptcy were compared on demographic and clinical variables using Pearson chi-square, t-tests (two-tailed), or Mann-Whitney test. All comparisons were two-tailed and an alpha level of .05 was used to determine statistical significance.

## Results

### Subject Characteristics

517 adults with PG were included in this study. 93 (18.0%) subjects had declared bankruptcy due to gambling. Of those who declared bankruptcy, the mean amount of debt at the time of bankruptcy was \$33,086.96 ( $\pm$  23,562.13).

Demographic data are presented in Table 1. Individuals with PG and a bankruptcy history were significantly more likely to be single (41.3% compared to 27.0%) ( $p=.004$ ). No other significant demographic differences were found.

### Clinical Characteristics

Subjects with and without bankruptcy histories did not significantly differ with respect to gross annual income, amount of money lost during the past year, or the percentage of the annual income lost to gambling (Table 2).

Subjects who declared bankruptcy secondary to gambling reported a significantly earlier age at which gambling became problematic (35.9 compared to 39.4 years) ( $p=.032$ ) and progressed from first gambling to problematic gambling significantly faster (6.5 compared to 9.6 years) ( $p=.004$ ) (Table 2).

Although PG subjects with bankruptcy histories actually gambled significantly fewer hours per week (11.6 compared to 14.9) ( $p=.031$ ), they reported significantly more financial ( $p<.001$ ), work-related ( $p=.006$ ), marital ( $p<.001$ ), and legal ( $p<.001$ ) problems secondary to their gambling. They also reported greater overall psychosocial dysfunction (reflected by the Sheehan Disability Scale) than those without bankruptcy histories (15.9 compared to 13.2) ( $p=.01$ ). Measures of gambling severity (e.g. PG-YBOCS, G-SAS, and CGI) did not significantly

differ between groups. Individuals with PG and a history of bankruptcy were significantly more likely to have sought gambling treatment (62.4% compared to 30.9%) ( $p < .001$ ) (Table 2).

Subjects with a bankruptcy history were significantly more likely to have a first-degree relative with an alcohol use disorder ( $p < .001$ ) and, on a trend level, were more likely to have a first-degree relative with problem gambling ( $p = .054$ ) (Table 2).

PG subjects with a bankruptcy history had significantly greater rates of depressive and substance use disorders (Table 3). In fact, subjects with a bankruptcy history had significantly greater rates of alcohol use disorders (31.2% compared to 17.0%) ( $p = .002$ ) and daily nicotine use (51.7% compared to 38.7%) ( $p = .022$ ).

## Discussion

In this study, we explored the clinical differences between treatment-seeking pathological gamblers with and without a history of bankruptcy. Interestingly, gamblers who had declared bankruptcy did not lose a greater percentage of their income gambling or spend more time gambling than those who had never declared bankruptcy. Neither did the severity of their gambling differ from those without bankruptcy histories. What did emerge from these data, however, was a complex picture of gamblers with an earlier age of problem gambling onset, more problems associated with their gambling (e.g., financial, marital, occupational), and a greater likelihood of a family history of addictions.

One explanation for these findings may be that those individuals who end up declaring bankruptcy were more likely to be raised in a dysfunctional family environment (due to alcohol use or gambling) and gambling was used at an early age as a maladaptive coping mechanism. Living in a maladjusted family is common for children who have a parent with an addiction (31-32). Family environment plays a significant role in the development of emotional regulation skills (33-34), and therefore being reared in an emotionally unsupportive home may lead to deficits in emotional processing and the development of ineffective coping skills (35). Declaring bankruptcy for many of these individuals may have been due to this inability to cope with financial debt. Although the actual mean debt of these subjects was approximately \$33,000 (approximately three-quarters their gross income), the question remains whether bankruptcy was financially necessary or simply reflective of a psychological inability to cope with debt.

One report also suggests that divorce plays a larger role than gambling in declaring bankruptcy (36). Caputo (37) found that those who are divorced or separated have higher rates of bankruptcy (16.4%, 13.9% respectively) than those who are married (11.2%) or never been married (7.0%). Given the significant difference in marital problems between PG with bankruptcy history and those without bankruptcy, it is possible that those who have declared bankruptcy are unable to deal with marital problems and escape these difficulties through gambling. Therefore including marital counseling in the treatment of pathological gambling may decrease the probability of bankruptcy.

We also found that those with PG who declared bankruptcy had significantly higher rates of affective disorders, substance use disorders, and daily nicotine use than those without a bankruptcy history. A possible explanation for this finding is that perhaps these disorders result in an inability to manage one's finances. For example, when an individual is depressed, they become hopeless about their future and therefore may not pay bills in a timely fashion. Similar, if one is coping with a substance use disorder, they may be spending money on drugs or alcohol and not going to work, and the expense of the addiction may contribute to their financial difficulties. Alternatively, depression and substance use disorders may have been secondary to the financial problems associated with bankruptcy. Although our data presents associations between co-occurring disorders and bankruptcy, we cannot determine from this cross-sectional

study which variable preceded the other nor can we assume cause and effect. Additional longitudinal research is needed to clarify why certain individuals with PG may be more vulnerable to declaring bankruptcy and thereby develop more effective preventive financial strategies for these individuals.

## Future Directions and Limitations

To our knowledge, this is the first study to investigate the link between clinical characteristics of PG and bankruptcy. However, there are several limitations that need to be addressed. First, our data did not examine the historical course of PG in these subjects. Therefore, it could be that those subjects who had declared bankruptcy have histories of more intensive gambling behavior which has subsided since the bankruptcy. Longitudinal studies on this topic are therefore necessary. Second, bankruptcy status was not verified by third-parties or legal documents. Therefore, rates of bankruptcy in this sample may be underreported. Third, since a treatment-seeking sample was used, it is unclear how generalizable the results are to non-treatment seeking individuals with PG. Fourth, lack of ethnic/racial diversity in our sample may suggest that these findings will not generalize to members of different ethnic and cultural groups. Fifth, the subjects were recruited over several years from a variety of venues without control groups taken from these various settings. Although this may have introduced some bias, this heterogeneity of place and time may actually reflect “real world” gambling pathology more closely. Sixth, this study did not examine measures of impulsivity. Some research has proposed that different subtypes of gamblers (e.g., antisocial impulsivist gamblers) may necessitate different clinical approaches (38). Future research therefore should explore whether a clinical variable such as bankruptcy may be associated with greater levels of impulsivity. Finally, family history data was obtained directly from the subject in a semi-structured interview that has not been tested for reliability or validity. No direct interviews were conducted with family members and consequently, results may accurately reflect diagnosis. Despite the limitations, the study has multiple strengths, including the large sample of treatment-seeking pathological gamblers and the use of both self-report and clinician-administered measures with strong psychometric properties and established norms.

Bankruptcy results in social as well as personal/psychological costs (39-40). It is estimated that it takes between 33 to 46 good paying households to compensate for one bankruptcy (39). To offset the loss of bankruptcy, credit cards raise interest rates and fees, primarily affecting those having trouble making monthly payments. In 1986, credit card late fees ranged between \$5 and \$10, but ten years later, late fees ranged from \$15 to \$25 (39). Increasing bankruptcy rates have also lead banks to have higher standards and a more rigorous screening process for loan applicants (40). Besides dispersing the cost of bankruptcy onto society, there is a stigma attached to bankruptcy, which may affect individuals' likelihood of obtaining a job or receiving financial services in the future (41).

Future research should continue to explore who with PG is most vulnerable to declaring bankruptcy and where in the course of illness would prevention efforts be most useful in aborting the progression to bankruptcy. It would also be beneficial to investigate the factors that hinder and facilitate the decision to declare bankruptcy to generate a more complete picture of PG who declare bankruptcy.

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**Table 1**  
Demographics of 517 Pathological Gamblers with and without a Bankruptcy History

	Declared Bankruptcy (n=93)	No Bankruptcy (n=424)	Statistic*	df	p-value
<b>Age (<math>\pm</math> SD), years</b>	47.92 (10.50)	47.49 (11.49)	.337t	515	.737
<b>Female, n (%)</b>	58 (62.4%)	225 (53.1%)	2.851c	1	.091
<b>Marital, n (%)</b>	n=92	n=415	f	n/a	.004
Single	38 (41.3%)	112 (27.0%)			
Married	29 (31.5%)	210 (50.6%)			
Divorced/Widowed/Separated	25 (27.2%)	93 (22.4%)			
<b>Race, n (%)</b>	n=90	n=354	.348c	1	.555
Caucasian	82 (91.1%)	329 (92.9%)			
Other	8 (8.9%)	25 (7.1%)			
<b>Education, n (%)</b>	n=92	n=362	5.478c	3	.140
High School or less	39 (42.4%)	129 (35.6%)			
Part college	27 (29.3%)	123 (34.0%)			
College grad	24 (26.1%)	81 (22.4%)			
Post-college education	2 (2.2%)	29 (8.0%)			

\* Statistic: c = Chi-square t = t-test f = Fischer's Exact



**Table 2**  
Clinical Characteristics of 517 Pathological Gamblers with and without a Bankruptcy History

Clinical Variable	Declared Bankruptcy (n=93)	No Bankruptcy (n=424)	Statistic*	df	p-value
Gross yearly income, Mean ( $\pm$ SD), Median	\$43,293.10 (26,156.75) 40,000	\$47,308.46 (35,782.04) 40,000	-.432z	n/a	.666
Amount of money lost to gambling during past year, Mean ( $\pm$ SD), Median	\$19,582.64 (26,282.90) 15,000.00	\$17,841.37 (21,966.24) 10,000.00	-.982z	n/a	.326
Percent of gross annual income lost due to gambling in the past year	36.69 (68.39)	24.48 (51.57)	-.929z	n/a	.353
Hours spent gambling per week Mean ( $\pm$ SD), Median	11.63 (11.10) 9.50	14.91 (12.45) 11.50	-2.157z	n/a	.031
Age when gambling became a problem, yrs, Mean ( $\pm$ SD), Median	n=80 35.91 (11.71) 36.00	n=309 39.39 (13.17) 40.00	-2.150t	387	.032
Time lag between started gambling and when it became problematic, yrs	n=76 6.53 (9.39)	n=299 9.62 (10.69)	-2.904z	n/a	.004
<b>Financial problems due to gambling, n (%)</b>					
Credit card debt	87 (93.5%)	303 (71.5%)	20.078c	1	<.001
Loss of all savings	55 (59.1%)	221 (52.1%)	1.509c	1	.219
Loss of house	26 (28.0%)	122 (28.8%)	.025c	1	.875
Took out 2 <sup>nd</sup> mortgage	16 (17.2%)	15 (3.5%)	25.273c	1	<.001
Borrowed from family/friends	5 (5.4%)	24 (5.7%)	.012c	1	.914
Loss of car	62 (66.7%)	165 (38.9%)	23.850c	1	<.001
Loss of retirement	6 (6.5%)	7 (1.7%)	f	n/a	.017
	12 (12.9%)	18 (4.2%)	10.460c	1	.001
<b>Work problems due to gambling, n (%)</b>					
	21 (22.6%)	50 (11.8%)	7.493c	1	.006

Clinical Variable	Declared Bankruptcy (n=93)	No Bankruptcy (n=424)	Statistic*	df	p-value
<b>Marital/Relationship problems due to gambling, n (%)</b>	57 (61.3%)	163 (38.4%)	16.286c	1	<.001
<b>Legal Problems, n (%)</b>					
Written bad checks	41 (44.1%)	76 (17.9%)	29.814c	1	<.001
Tax Issues	35 (37.6%)	58 (13.7%)	29.668c	1	<.001
	5 (5.4%)	4 (.9%)	f	n/a	.003
<b>Types of Problem Gambling, n(%)</b>					
Any Strategic	49 (52.7%)	208 (49.1%)	.402c	1	.526
Any Non-strategic	82 (88.2%)	325 (76.7%)	.6044c	1	.014
<b>Any previous gambling treatment, n (%)</b>	58 (62.4%)	131 (30.9%)	32.567c	1	<.001
<b>PG-YBOCS Total score</b>	n=57 20.88 (5.58)	n=242 19.76 (5.45)	1.391t	297	.165
<b>PG-YBOCS Urge score</b>	n=86 8.88 (3.62)	n=336 9.15 (3.25)	-.674t	420	.500
<b>PG-YBOCS Behavior score</b>	n=57 10.56 (4.29)	n=242 9.61 (3.66)	1.705t	297	.089
<b>Gambling Symptom Assessment Scale Total score</b>	n=89 25.62 (12.22)	n=312 25.33 (10.73)	.212t	399	.832
<b>South Oaks Gambling Screen</b>	n=36 14.53 (3.03)	n=187 13.65 (3.46)	1.418t	221	.158
<b>Sheehan Disability Scale</b>	n=54 <b>15.89</b> (7.00)	n=198 <b>13.21</b> (6.69)	2.582t	250	<b>.010</b>
<b>Any first-degree family member with problem gambling, n (%)</b>	49 (52.7%)	177 (41.7%)	3.712c	1	.054

Clinical Variable	Declared Bankruptcy (n=93)	No Bankruptcy (n=424)	Statistic*	df	p-value
Any first-degree family member with an alcohol use disorder, n (%)	58 (62.4%)	164 (38.7%)	17.465c	1	<.001

All scores are Mean ( $\pm$  SD) unless otherwise indicated

\* Statistic: c = Chi-square; t = t-test; z = Mann-Whitney; f = Fisher's exact

PG-YBOCS= Yale Brown Obsessive Compulsive Scale Modified for Pathological Gambling

Any strategic gambling = poker, sports, cards, dice, blackjack, track horses dogs

Any non-strategic gambling = slots, lottery, pull tabs, bingo, keno, video poker

**Table 3**  
Co-Occurring Disorders in 517 Pathological Gamblers with and without Bankruptcy

Co-occurring Disorder	Declared Bankruptcy (n=93)	No Bankruptcy (n=424)	Statistic*	df	p-value
<b>Any Depressive Disorder, n (%)</b>					
Major depressive disorder	45 (48.4%)	120 (28.3%)	14.160	1	<.001
Depressive disorder NOS	28 (30.1%)	56 (13.2%)	16.008	1	<.001
	17 (18.3%)	60 (14.2%)	1.026	1	.311
<b>Any Anxiety Disorder, n (%)†</b>					
	13 (14.0%)	42 (9.9%)	1.331	1	.249
<b>Any Substance Use Disorder, n (%)‡</b>					
Alcohol Abuse or Dependence	32 (34.4%)	88 (20.8%)	7.978	1	.005
Drug Abuse or Dependence †	29 (31.2%)	72 (17.0%)	9.786	1	.002
	10 (10.8%)	28 (6.6%)	1.928	1	.165
<b>Daily Nicotine Use, n (%)</b>					
	48 (51.6%)	164 (38.7%)	5.274	1	.022

\* Statistic: Chi-square

† **Any anxiety disorder** = generalized anxiety disorder, post-traumatic stress disorder, obsessive compulsive disorder, panic disorder, social phobia, anxiety disorder NOS