

Problem Gamblers, Problem Substance Users, and Dual-Problem Individuals: An Epidemiological Study

William Feigelman, PhD, Lynn S. Wallisch, PhD, and Henry R. Lesieur, PhD

ABSTRACT

Objectives. This study compared problem gamblers, problem substance users, dual-problem individuals, and persons without these problems in the general population.

Methods. On the basis of computer-assisted telephone interviews of a random sample of Texas adults ($n = 6308$) standard instruments were used to gauge substance use and gambling problems in the general population.

Results. Compared with those having a substance use or gambling problem only, dual-problem individuals were more likely to be young, never-married men, without conventional religious affiliations. There was more dysfunctionality (as evidenced by treatment-seeking and problems with the law) among dual-problem respondents than among those troubled exclusively by gambling or substance use problems.

Conclusions. Screening and treatment for gambling problems should be offered in drug treatment and criminal justice arenas. (*Am J Public Health*. 1998;88:467-470)

Introduction

In recent years, the amount of money legally wagered in the United States went from \$17.4 billion in 1974¹ to \$550.3 billion in 1995²—a 3100% (non-inflation-adjusted) increase in 21 years. In 1974, 68% of American adults gambled during their lifetimes; by 1988, this figure had expanded to 81%.³

Past research conducted among samples of clinical patients suggests that substance abuse and problem gambling often overlap. In clinical samples of pathological gamblers, approximately half have problems of chemical dependency.⁴⁻⁶ Correspondingly, in chemically dependent treatment populations, between 20% and 30% have gambling problems.⁷⁻⁹

In clinical populations studied, the dually-addicted show more serious psychiatric problems and tend to have longer histories of criminal involvement than those suffering from gambling or substance use problems alone.^{6,7,9,10} In the present investigation, we probed whether those in the general population with combined substance and gambling difficulties are also more problem prone.

We also explored whether those with gambling problems usually receive help from gambling treatment professionals or other mental health caregivers or whether they remain without treatment. One recent study suggests that clients getting treatment for gambling have different demographic characteristics from those of the population with gambling problems.¹¹ Such findings suggest that many people who are troubled by gambling problems constitute an underserved population.

Methods

The data came from a telephone survey of a simple random sample of Texas adults ($n = 6308$) conducted during the spring of 1992. Matching demographic characteristics of respondents against the 1990 US Census showed data comparability. The overall response rate was 67%, comparable to what has been attained in similar recent statewide gambling studies.¹¹

Poststratification weightings were employed to ensure that the results represented the actual racial/ethnic, age, and regional distributions of the adult population of the state. The study was carried out by the Texas Commission on Alcohol and Drug Abuse in collaboration with Texas A&M University. Detailed information about methodology and weighting can be found elsewhere.¹²

Lifetime pathological and problem gambling were measured with the 20-item South Oaks Gambling Screen, a validated and reliable screening tool for identifying pathological gambling in clinical and general populations.¹³ Consistent with past research, we considered a score of 3 or more to indicate problem gambling and a score of 5 or more to indicate probable pathological gambling. In the present study, problem and pathological gamblers were combined under the single term "problem gamblers."

The presence of alcohol and other drug problems was assessed by an adapted version of the Inventory of Substance Use Patterns, which is based on Diagnostic and Statistical Manual of Mental Disorders, third edition, revised (DSM-III-R) criteria for substance abuse and dependency.¹⁴ Treatment experience, desire for treatment, and involvement with the law were assessed as well.

Logistic regression analyses were conducted—predicting both dual-problem status vs other, and dual-problem vs single-problem status—to control for potential confounders of all significant bivariate demographic correlates. Given the paucity of dual-problem respondents in our sample ($n = 69$), the lowest number of cutpoints were established to provide for a meaningful analysis. Age was dichotomized into

William Feigelman is with the Department of Sociology, Nassau Community College, Garden City, NY. Lynn S. Wallisch is with the Texas Commission on Alcohol and Drug Abuse, Austin. At the time of the study, Henry R. Lesieur was with the Institute for Problem Gambling, Pawtucket, RI.

Requests for reprints should be sent to William Feigelman, PhD, Department of Sociology, Nassau Community College, One Education Drive, Garden City, NY 11530-6793.

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younger than age 25 vs all others; religion was dichotomized into Protestant and Catholic vs Others and those with no religious preference. Marital status was divided into never-married vs all others.

Results

In this analysis, 4 population subgroups were contrasted: exclusive problem gamblers ($n = 196$), persons with drug or alcohol problems ($n = 343$), dual-problem individuals ($n = 69$), and persons with neither gambling nor substance use problems ($n = 5700$).

In our analysis of demographic variables, we sought to determine whether each problem subgroup differed from the others, as well as from the larger group of persons without substance or gambling problems. Two separate chi-square tests were run on each bivariate association. We examined, first, whether any of the problem groups differed significantly from so-called normal individuals (4-way subgroup comparisons), and subsequently, whether any of the problem groups differed significantly from the others (3-way comparisons).

Table 1 shows some distinctive demographic profiles for each of the 4 subgroups. Compared with the no-problem majority, those with a single or dual problem were more likely to be young, male, never married, and currently employed, and work at a blue-collar occupation. They were also less likely to be affiliated with a dominant religious faith.

Comparisons between problem subgroups (gambling problem only, drug problem only, and dual problem) showed distinctive patterns as well. Dual-problem individuals tended to be younger than persons who were exclusively problem gamblers or substance abusers. African Americans were less likely to be among those with substance abuse problems only and were overrepresented among exclusive gamblers. Latinos, too, were overrepresented among exclusive gamblers. Yet the occupational and work statuses of the 3 problem subgroups were essentially similar.

Those who were exclusive problem gamblers were nearly evenly divided by sex. Those with substance use problems included more men, and the most disproportionately male group of all were dual-problem individuals.

Members of each problem subgroup were less likely than the no-problem majority to identify themselves as affiliates of the leading conventional faiths, and dual-problem individuals were the most likely of all

TABLE 1—Selected Demographic Characteristics of Respondents ($n = 6308$), by Type of Substance or Gambling Problem: Texas Survey of Adult Gambling Behavior, 1992

	No Problem ($n = 5700$)	Gambling Problem Only ($n = 196$)	Substance Problem Only ($n = 343$)	Dual Problem ($n = 69$)	Base
Age ***					
8–24y,%	14.0	27.9	30.0	43.0	841
25–34y,%	25.1	27.9	35.3	28.5	1413
35+y,%	60.9	44.2	34.7	28.5	3953
Base	5606.0	194.0	339.0	68.0	6207
Race/ethnicity **†					
White,%	65.0	39.9	69.4	62.9	4372
Black,%	10.8	23.9	6.8	13.2	516
Hispanic,%	22.2	32.6	21.9	20.9	1299
Other,%	2.1	3.6	1.8	3.0	86
Base	5668.0	196.0	341.0	68.0	6273
Sex **†					
Male,%	44.6	52.9	67.8	85.9	2916
Female,%	55.4	47.1	32.2	14.1	3392
Base	5700.0	196.0	343.0	69.0	6308
Religion **†					
Protestant,%	54.7	39.3	42.1	32.6	3398
Catholic,%	29.1	35.2	33.0	28.0	1738
Other,%	12.7	23.1	17.8	28.1	765
None,%	3.5	2.4	7.2	11.4	208
Base	5533.0	191.0	319.0	66.0	6109
Marital status ***					
Married,%	59.6	50.4	39.5	23.3	3734
Widowed,%	8.1	1.8	1.7	0.0	534
Divorced or separated,%	13.5	18.3	21.9	20.1	895
Never married,%	18.7	29.9	37.0	56.6	1119
Base	5678.0	195.0	340.0	69.0	6282
Current work status **					
Employed or student,%	69.9	80.1	86.4	85.6	4327
Homemaker,%	14.1	11.6	5.6	6.8	859
Disabled,%	1.5	3.1	2.3	2.5	103
Retired,%	12.1	2.7	3.0	2.8	841
Unemployed,%	2.3	2.6	2.8	2.3	132
Base	5660.0	193.0	340.0	69.0	6262
Occupation **					
Professional,%	16.5	9.4	10.0	8.8	705
Managerial,%	15.0	12.1	12.5	9.0	622
Clerical,%	45.5	43.2	43.4	42.6	1842
Blue-collar,%	23.0	35.2	34.0	39.6	1006
Base	3722.0	135.0	271.0	47.0	4175

Note. The percentages displayed in this table were computed from weighted data; the chi-square significance tests were calculated from the actual unweighted marginals.

*Four-way chi-square $P < .05$.

**Four-way chi-square $P < .01$.

***Three-way chi-square $P < .05$.

†Three-way chi-square $P < .01$.

not to hold a conventional religious affiliation. This group also had the highest proportion of individuals who had never been married.

Logistic regression results are displayed in Table 2, which presents the adjusted odds ratios, P values, and 95% confidence intervals for each of the 4 statistically significant demographic variables against dual-problem status. When dual-problem respondents were contrasted with

all others, sex, religion, and marital status emerged as significant independent predictors, though age receded to only a trend. When dual-problem respondents were compared with those with problems of either chemical dependency or gambling alone, those with dual problems were more likely to be never married, detached from conventional faiths, and male. Thus, when the intercorrelations between demographic variables were controlled for, dual-problem

TABLE 2—Logistic Regressions of Demographic Characteristics of Dual-Problem Respondents Compared with All Other Respondents and with Single-Problem Respondents: Texas Survey of Adult Gambling Behavior, 1992

	Dual-Problem Respondents (n = 69) Compared with All Other Respondents (n = 6041)		Dual-Problem Respondents (n = 69) Compared with Those with Substance or Gambling Problem Only (n = 573)	
	P	OR (95% CI)	P	OR (95% CI)
Age				
25+y				
18–24 y	.056	1.9 (.98, 3.6)	.68	1.2 (0.6, 2.3)
Religion				
Catholic or Protestant				
Other or no religion	.001	3.0 (1.8, 5.0)	.001	2.6 (1.5, 4.5)
Marital status				
Married, widowed, divorced or separated				
Never married	.003	2.6 (1.4, 4.9)	.049	2.0 (1.0, 3.8)
Sex				
Female				
Male	.001	5.8 (2.9, 11.4)	.001	3.7 (1.8, 7.6)

Note. OR = adjusted odds ratio; CI = confidence interval.

individuals still remained distinct from all other respondents.

Table 3 displays the experience of each problem subgroup in seeking treatment with various mental health providers and in problem-related contacts with the law. Distinctly different patterns of experience with treatment and legal problems can be discerned for each of the 3 problem subgroups. The dual-problem individuals showed the most evidence of dysfunctionality. More of these individuals reported getting into trouble with the law because of their drinking and gambling problems; in addition, higher percentages of this group than of any other subgroup had received or sought drug treatment.

The data also showed the least evidence of dysfunctionality for those who were exclusive problem gamblers. This group reported the least criminal involvement and the least contact with any mental health practitioner. Only 4% of exclusive gamblers and 4% of dual-problem individuals reported any interest in gaining professional help for their gambling problems.

Discussion

This investigation among Texas adults confirms the results of studies completed with clinical populations^{9,15} demonstrating the increased psychosocial dysfunctionality associated with having a combined gambling and substance use problem. Dual-problem individuals were more likely to have sought or to have experienced substance use treatment, than were those whose problem was confined exclusively to drugs

or alcohol. Dual-problem respondents were at least twice as likely as those exclusively troubled by substance or gambling problems to have gotten in trouble with the law.

The Texas data also suggest that in the general population dual-problem individuals tend to be young, never-married men without conventional religious affiliations. By contrast, exclusive problem gamblers are more likely to include women, minority group members, and older people.

Almost one fifth of all those suffering from problems of drug or alcohol use were also problem gamblers. These findings suggest that some substance abusers may not be receiving any treatment for one of their problems—the difficulties associated with gambling. Screening for problem gambling should be an essential part of any thorough intake process to treat the chemical abuser. Treatment for gambling problems should be part of the array of clinical services offered to those seeking help for addiction problems as well as to individuals in the criminal justice system.

These data also show that only a minority of those presently afflicted with drug, alcohol, or gambling problems—less than 25%—have ever seen any treatment professional or other mental health caregiver for their problems. In fact, among those with dual problems in the present study, a somewhat larger proportion had been in trouble with the law (32%) than had ever seen a mental health caregiver (24%). Those with gambling problems were especially unlikely to have sought therapeutic treatment.

The notable lack of interest in treatment among problem gamblers has several

possible explanations. First, afflicted individuals may be in a state of denial about the seriousness of their problems. Despite the fact that problem gamblers in the present study reported at least 3 major symptoms of out-of-control gambling (as measured by the South Oaks Gambling Screen), only about 13% acknowledged in response to a direct question that they had a problem with gambling.

A second possible explanation could be a lack of pressure from significant others to seek treatment for gambling problems. The very low interest in receiving treatment could also represent an adaptive response to the shortage of care available in the community. At the time of the Texas survey, there were virtually no publicly available treatment resources or self-help groups for gambling problems.

It is important to address the limitations of the present study. Telephone surveys like the one described here tend to underestimate problem conduct by failing to include persons without telephones and those unwilling to acknowledge socially unacceptable behavior to a telephone interviewer. Problem gamblers may be less likely to be reached by telephone because they may be busy gambling or trying to avoid calls from creditors; their telephones may also be disconnected owing to financial insolvency.¹⁶ Undoubtedly, these factors depress estimates of overall gambling prevalence and reduce the apparent severity of problem gambling. Future epidemiological studies should seek to complete more face-to-face household interviews to more accurately gauge these and other problem behaviors.

TABLE 3—Experience With Treatment and Trouble with the Law, by Type of Substance or Gambling Problem: Texas Survey of Adult Gambling Behavior, 1992

	Gambling Problem Only (n = 196)	Substance Problem Only (n = 343)	Dual Problem (n = 69)	Base
Have you ever gotten any kind of treatment for drinking or drug problems?*				
No,%	100.0	83.7	75.0	452
Yes,%	0.0	16.3	25.0	74
Base	116.0	342.0	68.0	526
Have you ever sought such treatment but did not receive it?*				
No,%	100.0	94.1	80.9	495
Yes,%	0.0	5.9	19.1	32
Base	116.0	342.0	69.0	527
Have you ever seen a health professional for a mental health problem?				
No,%	85.0	76.5	76.2	480
Yes,%	15.0	23.5	23.8	125
Base	195.0	341.0	69.0	605
Have you ever wanted or tried to get treatment for a gambling problem?*				
No,%	95.9	100.0	96.1	500
Yes,%	4.1	0.0	3.9	12
Base	196.0	247.0	69.0	512
Have you ever gotten in trouble with the law because of your drinking or gambling problems?*				
No,%	97.9	83.6	68.4	528
Yes,%	2.1	16.4	31.6	80
Base	196.0	343.0	69.0	608

Note. The percentages displayed in this table were computed from weighted data; the chi-square significance tests were calculated from the actual unweighted marginals. The chi-square tests compared the three problem subgroups.

*Three-way chi-square $P < .01$.

The Texas population is somewhat unusual demographically, with its high percentages of Hispanics and Protestant Fundamentalists. Also, this study was conducted at a time when legal opportunities to gamble in Texas were relatively limited. It remains for future research to explore whether the patterns found in Texas are typical for areas with different demographics and gambling opportunities. We suspect that demands for treatment—as well as its availability—will be far too scarce in many locations.

With the spiraling growth of gambling in America today, we may assume that problem gambling will be increasing as well. If society fails to develop appropriate prevention and treatment programs, the adverse impact of problem gambling will be intensified. □

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References

1. *Gambling in America*. Washington, DC: Commission on the Review of the National Policy towards Gambling; 1976.
2. Christiansen EM, Sinclair S, Liao J. The United States 1995 Gross Annual Wager. *Int Gaming Wagering Business*. 1996;17(August):53-92.
3. Hugick L. Gallup's mirror of America: gambling on the rise as lotteries lead the way. *Gallup Report: Political, Social and Economic Trends*. June 1989.
4. Lesieur HR, Blume SB. Evaluation of patients treated for pathological gambling in a combined alcohol, substance abuse and pathological gambling treatment unit using the Addiction Severity Index. *Br J Addict*. 1991;86:1017-1028.
5. Linden RD, Pope HG, Jonas JM. Pathological gambling and major affective disorder: preliminary findings. *J Clin Psychiatry*. 1986;47:201-203.
6. Ramirez LF, McCormick RA, Russo AM, Taber JI. Patterns of substance abuse in pathological gamblers undergoing treatment. *Addict Behav*. 1983;8:425-428.
7. Lesieur HR, Blume SB, Zoppa RM. Alcoholism, drug abuse and gambling. *Alcohol Clin and Exp Res*. 1986;10:33-38.
8. Lesieur HR, Heineman M. Pathological gambling among youthful multiple substance abusers in a therapeutic community. *Br J of Addict*. 1988;83:765-771.
9. Steinberg MA, Kosten TA, Rounsaville BJ. Cocaine abuse and pathological gambling. *Am J Addict*. 1992;1:121-132.
10. Feigelman W, Kleinman P, Lesieur H, Millman R, Lesser M. Pathological gambling among methadone patients. *Drug Alcohol Depend*. 1995;39:75-82.
11. Volberg R. The prevalence and demographics of pathological gamblers: implications for public health. *Am J Public Health*. 1994;84:237-241.
12. Wallisch LS. *Gambling in Texas: The 1992 Texas Survey of Adult Gambling Behavior*. Austin, Tex: Texas Commission on Alcohol and Drug Abuse; 1993.
13. Lesieur HR, Blume SB. The South Oaks Gambling Screen (the SOGS): a new instrument for the identification of pathological gamblers. *Am J Psychiatry*. 1987;144:1184-1188.
14. Whittenberger G. *Inventory of Substance Use Patterns, Version E/P/I*. 3rd ed. Tallahassee, Fla: Federal Prison System; 1990.
15. Ciarocchi J. Severity of impairment in dually addicted gamblers. *J Gambling Behav*. 1987;3:6-26.
16. Lesieur HR. Epidemiological surveys of pathological gambling: critique and suggestions for modification. *J Gambling Stud*. 1994;4:385-398.
17. Dickerson M. A preliminary exploration of a two-stage methodology in the assessment of the extent and degree of gambling-related problems in the Australian population. In: Eadington WR, Cornelius J, Taber JI, eds. *Gambling Behavior and Problem Gambling*. Reno, Nev: University of Nevada; Institute for the Study of Gambling and Commercial Gambling; 1993.