

# Pathological Gambling Among Youthful Multiple Substance Abusers in a Therapeutic Community

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## Summary

*Patients in a therapeutic community were questioned about their gambling behavior in order to find out what percentage of them were pathological gamblers. The South Oaks Gambling Screen (the SOGS) was used to screen the clients for gambling-related problems. Out of 100 residents tested, 14 were diagnosed as pathological gamblers and an additional 14 showed signs of problematic gambling. Seventeen percent listing alcohol as one their three favorite drugs, 18% listing cocaine, 13% preferring marihuana, 11% preferring hallucinogens, 29% choosing heroin, 10% choosing PCP, and none choosing tranquilizers or sedatives showed signs of pathological gambling. Males were more likely to be classified as pathological gamblers than females. Residents aged 19 years and over were four times as likely to show signs of pathological gambling than those 18 years and under. SOGS was also significantly associated with parental gambling (50% of the children of pathological gamblers were pathological gamblers themselves) and occupational status. The implications for study and treatment of these individuals are made in terms of the study of addictions.*

## Introduction

Substance abuse and pathological gambling have commonalities. They involve states of arousal which heighten or depress one's state of awareness; they exist in overlapping social worlds; they frequently are engaged in concert or in sequence; patterns of abstinence and relapse appear to be similar; self-help approaches are alike; and the applicable treatment approaches resemble one another as well. Given these parallels, the authors decided to undertake research into multiple abuse and its connection to pathological gambling in therapeutic communities.

In 1980, the American Psychiatric Association, in its Diagnostic and Statistical Manual, officially recognized pathological gambling as a disorder of impulse control (APA, 1980). In 1987, the American Psychiatric Association specifically acknowledged that pathological gambling is similar to psychoactive substance dependence by modeling the

criteria for that disorder on those for psychoactive substance dependence (APA, 1987). According to the DSM-III-R, pathological gamblers are persons with a chronic and progressive failure to resist impulses to gambling and gambling behavior that compromises, disrupts or damages personal, family or vocational pursuits. There is an emotional dependence on gambling, loss of control and interference with normal functioning.

Evidence is mounting that pathological gambling overlaps with other addictions. In a study of 70 alcoholics, Haberman found that 17% admitted to 'gambling difficulties' (1969: 164). According to treatment professionals at Danbury Federal Correctional Facility, 18 out of the 100 prisoners in their alcohol unit were directed to Gamblers Anonymous because of collateral gambling problems (personal communication with treatment team, 1984). Ramirez *et al.*, in a study of 51 pathological gambling

inpatients, found that 47% of their sample met the criteria for either alcohol or drug abuse at some point in their life (1984). A study of 458 alcoholism and drug dependency inpatients found 40 (9%) were diagnosed as pathological gamblers and an additional 47 (10%) showed signs of problematic gambling (Lesieur *et al.*, 1986). They also found that 5% of patients abusing only alcohol, 12% of those with alcohol and another drug in combination, and 18% of those with other drug abuse problems without an alcohol component showed clear signs of pathological gambling.

The possibility exists that gambling has interconnections with chemical dependence for some people and presents a barrier to rehabilitation. Free drinks are served in casinos; card games are invariably teamed up with drinking; there are bars at the race track; furthermore, the local bookie often works out of the neighborhood pub. When the alcoholic who is 'on the wagon' gambles, the tension of gambling combined with the depression of losing and consequent lowered self-esteem gives further reason for loss of sobriety. Amphetamines and cocaine are used by gamblers to stay awake and at some games, the lines of coke are snorted between hands. The resulting atmosphere is so fast-paced that non-users have a difficult time keeping track of the game. Heroin and cocaine abusers who gamble often 'hustle' at gambling games in order to finance their drugs. Conversely, compulsive gamblers who also use drugs frequently deal drugs to finance their gambling.

The substance abuser who also gambles can fall into several categories. She or he can be a social gambler, professional gambler (who is not a pathological gambler when it comes to other forms of gambling), a problem gambler or a pathological gambler. A problem gambler exhibits some of the symptoms of pathological gambling but not all of them. Whether the problem gambler is an early stage pathological gambler or not is difficult to determine. There is anecdotal evidence that problem gamblers can become pathological gamblers once they quit drinking or using drugs. It is possible that the problem gambler comes to use gambling as a means of escape or for elevation of self-esteem instead of using alcohol or drugs. Once this occurs, there is the chance that the gambling will accelerate and produce problems which will precipitate a return to drinking or using drugs.

The purpose of this study was to determine the gambling behavior patterns of patients in a therapeutic community. In addition, the research repre-

sented the first phase of a systematic assessment program at the community.

### The Study Population

The study was conducted at two interconnected therapeutic communities from September, 1985 to May, 1986. The two communities, Sage and Hope Houses are located at South Oaks Hospital in Amityville, New York. Both communities treat multiple substance abusers and have a typical length of stay ranging from 2 to 6 months. The residents at Sage House range in age from 13 to 20 years and tend not to have a 'favorite' drug. Those at Hope House are 16 to 33 years and sequentially abused a variety of substances. There were 100 individuals treated during the study period. Forty-eight percent were treated for alcoholism, 62% were cocaine abusers; 71% abused marijuana; 46% hallucinogens, 7% heroin, 11% Librium or Valium; 1% abused barbiturates; 2% were amphetamine abusers, and 10% used PCP. Ninety-one of the patients were multiple substance abusers with cocaine (44%), alcohol (20%), marijuana (17%), hallucinogens (11%) and heroin (4%) being their first drug of choice.

Eighty-one of the 100 patients were male, 19 female, and their ages ranged from 13 to 33 with a mean of 17 years old. In terms of marital status, 96% were single, 3% married and 1% divorced. Sixty-one percent of the patients said they were Catholic, 20% Protestant, 10% Jewish, 2% another religion and 7% agnostic or atheist.

The average patient at Sage and Hope House has not yet completed high school; 17% are high school graduates; 8% have some college. Income and occupation data were not available for the parents of the patients but was collected for patients themselves. Over 75% earned under \$10,000; 11% earned \$10,000-\$14,999; only 12% earned over \$15,000. Fifty percent were laborers or service workers; 7% operatives; 8% craftsmen or foremen; 12% clerical workers; 3% managers or professionals; 9% farm workers; and 10% were unemployed. The data were confounded by the fact that only 25 of the 100 patients were 19 years or older.

### Method

Each person who entered the treatment facility was screened using the South Oaks Gambling Screen (the SOGS). The SOGS is a validated, reliable

Table 1. Gambling Among Sage and Hope House Patients

	Less than once/week	Once/week or more	Lifetime
Play cards for money	44%	13%	57%
Bet on horses, dogs or other animals	17%	5%	22%
Bet on sports	46%	15%	61%
Bet on dice games	14%	6%	20%
Gamble in a casino	17%	2%	19%
Bet on numbers or lottery	32%	8%	40%
Play bingo for money	15%	4%	19%
Play the stocks or commodities market	1%	1%	2%
Play slot machines	29%	6%	35%
Bowl, shoot pool, play golf or other sport for money	17%	17%	34%
All forms combined		38%	84%

instrument for screening individuals for a problem with pathological gambling (Lesieur & Blume, 1987). This screen has been used at South Oaks Hospital since 1985 to screen all incoming alcohol and chemical dependency patients and is currently being used in the eating disorders unit as well. In addition, it has been used for an epidemiological study by the Office of Mental Health of New York State (Volberg & Steadman, 1988) and is the subject of a pilot demonstration project being conducted by the Division of Alcoholism of the State of New Jersey. The SOGS is highly correlated with the diagnostic criteria in both DSM-III and DSM-III-R. It is relatively easy to administer and score.

The SOGS includes questions about chasing losses (gambling in an attempt to get even), bragging about non-existent wins, gambling more than intended, feeling guilty about gambling, whether others criticize one's gambling, the relation between gambling and family problems, and various forms of borrowing to finance gambling.

An alternate four-factor index was created as a cross-check on the SOGS. This index consists of four problem areas: family disruption, work/school disruption, financial problems and illegal behavior. It is a modification of criteria used in the DSM-III. The questions and scoring of this index are available from the authors.

Every patient was given the questionnaire by a counselor (MH) who reviewed the frequency of gambling, monies involved, types of gambling, gambling behavior (e.g. whether they 'chase losses'—gambling in order to get even after losing), and patterns of borrowing to finance gambling.

## Results

### *Gambling by the Patients*

Only 16% of the patients have never gambled. Fifty-seven percent have played cards for money (13% weekly); 22% have bet on horse or dog races (5% weekly); 61% have bet on sports (15% weekly); 20% have played dice games (6% weekly); 19% have been to a (legal or illegal) casino (2% weekly); 40% have placed a bet on a number or lottery (8% weekly); 19% have played bingo (4% weekly); 2% have wagered on stocks or commodities (1% weekly); 35% have played slot or video gambling machines (6% weekly); and 34% have wagered on pool, bowling, golf, or some other game of skill (17% weekly).

When asked about the interaction between gambling and alcohol or drug use, 40% said they gambled while drinking or taking drugs "some of the time" and 15% stated they gambled 'most' or 'all of the time' while drinking or taking drugs. Conversely, 25% drank or took drugs 'some of the time' while gambling and 30% 'most' or 'all of the time.'

Table 2. Scores on South Oaks Gambling Screen for Sage and Hope House Patients

Score	Number (%) of cases
0	38
1-2	34
3-4	14
5 or more	13
TOTAL	100

**Table 3. Problematic Gambling Signs Among Sage and Hope House Patients**

Disrupted family relationship due to gambling	25%
Disruption of work/school patterns due to gambling	12%
Financially related problems	28%
Committed illegal activity in order to gamble or to pay gambling debts	25%
Total with one or two signs	30%
Total with three or four signs	13%

**Table 4. Correlation Matrix of Components of the Problematic Signs Index and the South Oaks Gambling Screen**

	Family	Job/ School	Finance	Crime	Total	SOGS dichotomized	SOGS raw
Family	1.00	0.36***	0.50***	0.36***	0.72***	0.50***	0.58***
Job/School		1.00	0.39***	0.50***	0.70***	0.47***	0.57***
Finance			1.00	0.51***	0.79***	0.65***	0.71***
Crime				1.00	0.79***	0.57***	0.66***
Total					1.00	0.73***	0.84***

\*\*\*  $p < 0.001$ .

#### *The South Oaks Gambling Screen*

Data from the South Oaks Gambling Screen were analysed. Fourteen percent of the patients received scores of five or more and were therefore classified as probable pathological gamblers. Another 14% received scores of three or four on the SOGS and were classified as potential pathological gamblers. In other words, 28% of the patients were potential or probable pathological gamblers.

#### *Problematic Gambling by the Patients*

On the four-factor index, 25% of the patients received a positive score on the family disruption component. A positive score on the job/school disruption component was given to 12% of the patients. The financial segment of the index was scored for 28% of the patients who admitted borrowing from four or more different sources, defaulting on money owed or receiving a bailout. Twenty-five percent of the patients admitted to committing some gambling-related crime.

Using this alternate index, 43% of the patients had at least one sign, 28% had two or more signs and 13% had three or more signs of problematic gambling. Each component of the problematic signs index as well as the index itself are highly correlated with the SOGS. These data are presented in Tables 3 and 4.

#### *Correlates of the South Oaks Gambling Screen*

The South Oaks Gambling Screen was correlated with major socio-demographic variables as well as different signs of gambling. Age was significantly correlated with pathological gambling. Thirty-two percent of those 19 years or older showed signs of pathological gambling compared with 8% of those 18 years or younger ( $r = 0.23, p < 0.01$ ). Income and education were also associated with the SOGS. However, after controlling for age, the association with education was not statistically significant, that for income was weaker; it was significant for the raw SOGS score but not when the SOGS was dichotomized. Occupational status and pathological gambling were correlated even after controlling for age ( $r = 0.32, p < 0.001$ ). Neither religion nor race was significantly correlated with pathological gambling in the patients.

Fifteen percent of the males fell into the pathological range versus 10.5% of the females; an added 15% of the males and 10.5% of the females were classified as problem gamblers (difference was not statistically significant).

The patients were asked about the gambling patterns of their parents. Ten of the 100 patients said either their father (seven cases) or mother (one case) or both (one case) had a gambling problem. Not surprisingly, half of the patients who stated either their father or mother had a gambling problem showed signs of pathological gambling themselves.

Table 5. Correlates of the South Oaks Gambling Screen

	South Oaks Gambling Screen dichotomized	South Oaks Gambling Screen raw score
Sex	$r=0.05$ , NS	$r=0.12$ , NS
Religion	NS	
Race	NS	
Income*	$r=0.15$ , NS	$r=0.28$ , $p<0.01$
Occupation*	$r=0.33$ , $p<0.001$	$r=0.32$ , $p=0.001$
Education*	$r=-0.04$ , NS	$r=0.02$ , NS
Age	$r=0.16$ , $p=0.05$	$r=0.25$ , $p<0.01$
Parental gambling problem	$r=0.35$ , $p<0.001$	$r=0.34$ , $p<0.001$
Age started gambling	$r=0.20$ , $p<0.05$	$r=0.31$ , $p<0.001$
Gamble weekly	$r=0.34$ , $p<0.001$	$r=0.40$ , $p<0.001$
Largest amount gambled in one day	$r=0.43$ , $p<0.001$	$r=0.62$ , $p<0.001$
Chasing losses	$r=0.30$ , $p<0.001$	$r=0.44$ , $p<0.001$
Bragging about non- existent wins	$r=0.23$ , $p<0.01$	$r=0.42$ , $p<0.001$

\*Partial correlations, after controlling for age.

When asked about their gambling, the pathological gamblers were more likely to have gambled at a younger age than non-pathological gamblers; they gambled with more money on a single day and were more likely to be weekly gamblers. They were also more likely to participate in more forms of gambling, and to 'chase' their lost money than were social and problem gamblers. These data are summarized in Table 5.

In terms of the various drugs of abuse, 17% of the alcohol abusers, 18% of cocaine abusers, 13% of marijuana abusers, 11% preferring hallucinogens, 10% choosing PCP and two out of the seven preferring heroin were classified as pathological gamblers. None of those choosing amphetamines, tranquilizers or sedatives showed signs of pathological gambling. Possibly as a factor of sample size, with the exception of cocaine and sedative abuse, none of the differences among drugs was statistically significant. The number of drugs used was also not correlated with the SOGS. However, pathological gamblers were significantly more likely to drink or use drugs while gambling ( $r=0.20$ ,  $p<0.05$ ) and gamble while drinking or using drugs ( $r=0.29$ ,  $p<0.01$ ) than non-pathological gamblers. These results are summarized in Table 6.

## Discussion

The research reported here shows a clear connection between pathological gambling and substance abuse

in two linked therapeutic communities. Studies of pathological gambling in the general population show rates which range from 0.77% to 3% (Culleton, 1985; Kallick *et al.*, 1979; Volberg & Steadman, 1988). Those using high school student samples have discovered slightly higher rates ranging from 3.6 to 5.7% (Lesieur & Klein, 1986; Ladouceur & Mireault, 1988). In one study of short term (1-2 month) alcohol and substance abuse inpatients the rate was 9% (Lesieur *et al.*, 1986). The results presented here are one and a half times the shorter term inpatient rate, three times higher than the high school and 10-15 times higher than the general population estimates. It appears that substance abusers are at greater risk for having problems with gambling than are other groups. In addition, those in long term therapeutic communities are possibly at greater risk overall. Whether this is actually the case will only be determined after further research is conducted as we cannot generalize from a sample of only 100 patients.

This study, like the high school studies noted above found a positive association between pathological gambling and age. Given the restrictive nature of these samples, all we can say is that as people reach their late teens it appears that they are at greater risk for pathological gambling. All studies cited in this report point to higher rates of pathological gambling for males than for females although the difference in this study was not statistically significant.

Findings on the association between occupation and income and pathological gambling are not

Table 6. Correlates of the South Oaks Gambling Screen—Drug-related Variables

	South Oaks Gambling Screen	
	Dichotomized	Raw score
Alcohol abuse	$r=0.07$ , NS	$r=0.08$ , NS
Cocaine abuse	$r=0.14$ , $p=0.09$	$r=0.18$ , $p<0.05$
Marijuana abuse	$r=-0.06$ , NS	$r=0.01$ , NS
Hallucinogen abuse	$r=-0.08$ , NS	$r=-0.05$ , NS
Heroin abuse	$r=0.12$ , NS	$r=0.03$ , NS
Sedative abuse	$r=-0.14$ , $p=0.08$	$r=-0.18$ , $p<0.05$
Amphetamine abuse	$r=-0.06$ , NS	$r=0.03$ , NS
PCP abuse	$r=-0.04$ , NS	$r=0.06$ , NS
Number of favorite drugs	$r=0.00$ , NS	$r=0.10$ , NS
Gamble while drinking or using drugs	$r=0.29$ , $p<0.01$	$r=0.45$ , $p<0.001$
Drink or use drugs while gambling	$r=0.20$ , $p<0.05$	$r=0.32$ , $p<0.001$

consistent from study to study. While the present study found positive correlations, other treatment samples (Lesieur *et al.*, 1986) and samples of high school students (Ladouceur & Mireault, 1988; Lesieur & Klein, 1987) have found no association. Epidemiological surveys are also not consistent in their findings with some showing a negative association (Volberg & Steadman, 1986) and others failing to do so (Kallick *et al.*, 1979). Lesieur has uncovered variation in the extent to which occupation and income impact on the compulsive gambler's career and spiral of indebtedness (1984). Supervised occupations provide fewer options for gambling and financial resources than less supervised jobs and self-employment. Decreased income constricts financial options and moves the career into illegal activities at a more rapid pace. The extent to which other addictions interact with these dynamics needs to be investigated in more detail.

This research, like those before it (Ladouceur & Mireault, 1988; Lesieur & Klein, 1987; Lesieur *et al.*, 1986), has found a correlation between pathological gambling in parents and among the individuals studied. Whether this is a product of biological or social learning factors is yet to be determined.

Further research is needed on the overlapping social worlds of the substance abusing gambler and the gambling substance abuser. Current evidence suggests that multiple addiction may place pathological gamblers in greater risk of incarceration (Lesieur, 1987). In addition, substance dependent patients who are also pathological gamblers have higher rates of stress-related diseases and serious psychiatric problems including suicide attempts (Ciarrocchi, 1987).

Substance abusing patients diagnosed as pathological gamblers are being treated for that simultaneously with their treatment for substance abuse. Facilities which treat alcohol and substance dependent patients are easily transferring their treatment paradigm to the treatment of poly-addicted gamblers (Blume, 1986; Moravec, 1978). Evaluations of these programs show some success (Russo *et al.*, 1984) and others are currently underway.

## References

- AMERICAN PSYCHIATRIC ASSOCIATION (1980) *Diagnostic and Statistical Manual*, 3rd edn (Washington, D.C., APA).
- AMERICAN PSYCHIATRIC ASSOCIATION (1987) *Diagnostic and statistical manual of mental disorders, third edition—revised* (Washington, D.C., A.P.A.).
- BLUME, S. B. (1986) Treatment for the addictions: alcoholism, drug dependence and compulsive gambling in a psychiatric setting, *Journal of Substance Abuse Treatment*, 3, pp. 131-133.
- CIARROCCHI, J. (1987) Severity of impairment in dually addicted gamblers, *Journal of Gambling Behavior*, 3, pp. 16-26.
- COHEN, A., MCKEEVER, W., COHEN, M. & STIMMEL, B. (1977) The uses of an alcoholism screening test to identify the potential for alcoholism in persons on methadone maintenance, *American Journal of Drug and Alcohol Abuse*, 4, pp. 257-266.
- CULLETON, R. (1985) *A survey of pathological gamblers in the state of Ohio*, Report prepared for the Ohio Lottery Commission.
- HABERMAN, P. W. (1969) Drinking and other self-indulgences: Complements or counter-attractions? *International Journal of the Addictions*, 4, pp. 157-167.
- INGRAM-SMITH, N. (1967) Alcoholic rehabilitation centre of the West London Mission, *British Journal of the Addictions*, 62, pp. 295-305.

- KALLICK, M., SUITS, D., DIELMAN, T. & HYBELS, J. (1979) *A Survey of Gambling Attitudes and Behavior* (Ann Arbor, Mi, Survey Research Center).
- LADOUCEUR, R. & MIREAULT, C. (1988) Gambling behaviors among high school students in the Quebec area, *Journal of Gambling Behavior*, 4, pp. 3-12.
- LESIEUR, H. R. (1987) Gambling, pathological gambling and crime, In: T. GALSKI (Ed.) *Handbook on Pathological Gambling*, pp. 89-110 (Springfield, Il, Charles C Thomas).
- LESIEUR, H. R. & BLUME, S. B. (1987) The South Oaks Gambling Screen (the SOGS): a new instrument for screening pathological gamblers, *American Journal of Psychiatry*, 144, pp. 1184-1188.
- LESIEUR, H. R., BLUME, S. B. & ZOPPA, R. (1986) Alcoholism, drug abuse and gambling, *Alcoholism: Clinical and Experimental Research*, 10, pp. 33-38.
- LESIEUR, H. R. & KLEIN, R. (1987) Pathological gambling among high school students, *Addictive Behaviors*, 12, pp. 129-135.
- MORAVEC, J. D. (1978) *A guide to establishing compulsive gambler treatment programs in outpatient clinics, mental hygiene clinics and community mental health clinics*. Paper presented at the Fourth Annual Conference on Gambling, Reno, Nevada. (December).
- RAMIREZ, L. F., MCCORMICK, R. A., RUSSO, A. M. & TABER, J. I. (1984) Patterns of substance abuse in pathological gamblers undergoing treatment, *Addictive Behaviors*, 8, pp. 425-428.
- RUSSO, A. M., TABER, J. I., MCCORMICK, R. A. & RAMIREZ, L. F. (1984) An outcome study of an inpatient treatment program for pathological gamblers, *Hospital and Community Psychiatry*, 35, pp. 823-827.
- VOLBERG, R. & STEADMAN, H. (1988) Refining prevalence estimates of pathological gambling, *American Journal of Psychiatry*, 145, pp. 502-505.

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