Of time and *The Chase*: Lifetime versus past-year measures of pathological gambling

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Abstract

Objective: This analysis tested whether past-year measures can be shown to have
methodological advantages over lifetime measures of pathological gambling based
on DSM-IV criteria.

Methods: Two stratified random-sample surveys (n=2,417, n=530) of gambling
behavior and correlates were conducted with community-based U.S. adults. A fully
structured questionnaire, administered by trained interviewers, screened for
lifetime and past-year prevalence of the 10 DSM-IV criteria for pathological
gambling.

Sample: The study sample comprised 1,216 gamblers who were administered the
pathological gambling screen, with particular attention given to the 400 gamblers
who reported one or more gambling-related problems.

Results: Pathological gambling criteria as measured by lifetime items showed
greater consistency with past-year items than was true for other levels of gambling
problems. Neither lifetime nor past-year measures were positively related to the
age of the respondent.

Conclusion: These findings deny the presumptively greater accuracy of past-year over lifetime measures of pathological gambling based on DSM-IV criteria in prevalence studies in the general population. In view of greater conceptual fidelity to DSM-IV concepts, lifetime measures appear preferable to past-year.

Introduction

In the foreground of Professor Lesieur's vivid, seminal study *The Chase: Career of the Compulsive Gambler* (1977) were painstakingly acquired life-history interviews with 50 people he classified as compulsive gamblers, complemented by 20 interviews with frequent but noncompulsive gamblers and bookmakers. Lesieur placed these data within an experiential and ethnographic background of gambling venues, Gamblers Anonymous meetings and Massachusetts prisons. He developed a formulation of compulsive gambling that focused not only on the specific behavioral and psychological components of the disorder, but also on its temporality. His analysis emphasized the recurrent cycles of abstinence and relapse across the years of the compulsive gambler's career, as well as the "cyclical movement of the gambler's spiral" — the compulsive gambler's way of juggling indebtedness so as to maintain fiscal viability until all options foreclose. For Lesieur's compulsive gambler, the chase was not a short, straight run. It was a long haul with many stops, loops and backtracks.

A few years after *The Chase* was published, the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) of the American Psychiatric Association (APA) recognized pathological gambling as a distinctive disorder (APA, 1980) and subsequent research advances led to refinement in the diagnostic criteria in later editions (APA, 1987, 1994). The DSM continues to attend to the content as well as to the temporal dimensions of symptoms. In the current, fourth edition (DSM-IV), which was heavily based on a clinical survey of more than 200 pathological gamblers, pathological gambling is broadly defined as follows:

…*persistent* and *recurrent* maladaptive gambling behavior…that disrupts personal, family, or vocational pursuits…. The gambling pattern must be *regular* or *episodic* and the course of the disorder is typically *chronic* (APA, 1994, pp. 615–617; *emphasis added*).

The DSM-IV goes on to identify 10 specific measurement criteria and specifies that, if any five of the 10 have ever been present, it is sufficient to establish the diagnosis of pathological gambling. Chasing gambling losses in order to recoup funds is one of these criteria.

The DSM–IV diagnostic rule depends only on the total accumulation of discrete symptoms. Although the generic definition of pathological gambling clearly

specifies persistence and recurrence, and some of the items incorporate temporal referents such as "often," the diagnosis does not require that all or indeed any of the criteria be concurrent or clustered in time (for example, all occurring within a two-week, six-month, or one-year period), but rather emphasizes the diversity of symptoms a person exhibits across the lifetime.

Objective

An increasing number of surveys of the general population use screening items based on the DSM-IV — rather than the older version of the DSM on which the classic South Oaks Gambling Screen was based (Lesieur & Blume, 1987) — to study the prevalence and correlates of pathological gambling. One line of methodological criticism of prevalence studies using lifetime screens is based on temporal considerations. Shaffer, Hall and Vander Bilt (1997) note that the lifetime items used in these studies generally do not measure the extent to which the criteria are concurrent — occurring close together in time — as opposed to being spread out across different time periods. This is in contrast to the degree of concurrence that is assured when the temporal scope of screening items is tightly restricted, such as items limited to the past year.

Concurrence is not an explicit part of the DSM-IV definition. Nevertheless, one can speculate that gamblers in the general population who are flagged as pathological by lifetime survey measures may not be equivalent to the clinical populations on whom the measures were originally validated. These gamblers may have experienced much less actual disruption in their lives if their problems were not as concurrent as in the clinical samples of gamblers. Because the DSM-IV says nothing regarding the significance of concurrence of symptoms, one can speculate that gamblers whose symptoms are not concurrent may not truly meet the basic DSM-IV stipulation of "persistent and recurrent maladaptive behavior" (APA, 1994, p. 615). In short, the lifetime items could potentially yield many false positives. For this reason, Shaffer and colleagues (1997) argue that estimates of pathological gambling in the general population that are based on lifetime measures are inflated and they recommend that epidemiologists of pathological gambling rely instead on a past-year (or other "current") timeframe "as the most accurate measure of the existence of clustered indicators of a gambling disorder" (1997, p. 64). This recommendation has the effect of reducing survey estimates of the prevalence rate of pathological gambling in the general population (e.g. Gerstein et al., 1999) by one-half.

The objective of the present analysis is to empirically assess this line of reasoning. The speculative superiority of past-year over lifetime items is based not on specific findings but on theoretical reasoning. It is based on two hypotheses: first, that lifetime symptoms are, in general, less concurrent than past-year symptoms, and,

second, that nonconcurrent symptoms are less debilitating or severe than concurrent ones. The second hypothesis is difficult to test directly without an independent measure of severity (that is, a measure separate from DSM-IV, which only counts the numbers of symptoms). However, one can test it indirectly. The first hypothesis, that past-year measures are more concurrent, can be directly tested with available survey data.

If lifetime measures of pathological gambling captured symptoms that are typically less concurrent, or more spread out across time, than past-year measures, then we should expect many individuals with five or more symptoms in their lifetime who present fewer than five symptoms in any given year. However, measures restricted to the past year very likely still underestimate concurrence, since a respondent may have experienced concurrent symptoms in a 12-month timeframe that is not the same as the 12-month timeframe stipulated by a given survey. In fact, it would be absurd to assume that everyone who has ever experienced five or more symptoms during the course of a year experienced five or more symptoms within the specific 12-month timeframe referenced by a questionnaire. For example, consider that an interview is conducted with a pathological gambler who has abstained from gambling in the past six months. However, in the past year, she reports having experienced two symptoms. A survey that only requests information about problems in the past year cannot determine whether, in the prior 18 months, the respondent experienced an additional three symptoms. In such a case, the respondent would have experienced five symptoms within a 12-month timeframe (and a recent one, at that), but would not be diagnosed as pathological per the survey's definition. Nevertheless, this respondent may still be in need of treatment to prevent relapse. Therefore, the DSM makes no requirement that symptoms be within the immediately preceding 12 months.

In short, the past-year measure is not an exact indicator of 12-month concurrence; it is only a rough estimate. The past-year measure would tend to underestimate 12-month concurrence just as surely as the lifetime measure might tend to overestimate it. Given that our questionnaire does not pin down the timeframe more tightly than lifetime and past-year, how can we decide whether the past-year measure actually represents concurrent symptoms more accurately than the lifetime measure?

Relative consistency

One simple but indirect test is a comparison of the consistency between lifetime and past-year pathological symptom levels relative to the consistency of lower levels of gambling problems between lifetime and past year. If lifetime pathological gambling is really capturing a recurrent and persistent disorder, then it should have more consistency through the life course than at-risk or problem gambling. If lifetime and past-year pathological gambling are more consistent over time than

other levels, one can have greater confidence that lifetime pathological gambling is a good measure than if it is less persistent than other levels.

Age relatedness

A clear implication of the presumed nonconcurrence of the lifetime measure is that gamblers who are older should have accumulated more nonconcurrent lifetime problems than gamblers who are younger; in other words, there should be a positive correlation between age and the number of lifetime problems. This implication is clearly recognized by Shaffer and associates (1997, p. 64): "Theoretically, the phenomenon of overestimating prevalence as a result of 'non-clustered' symptoms will increase as the age of respondents increases, since older respondents have more opportunities to experience isolated symptoms; therefore, older respondents have more opportunity to reach the threshold for lifetime pathological gambling." In other words, if lifetime measures overestimate prevalence, then age and number of lifetime symptoms should be positively correlated. If they are not — if the correlation is zero or especially if it is negative — then this critique of the accuracy of the lifetime measure loses its force.

However, an even sharper test may be formulated. Shaffer and colleagues argue that the overestimation of pathological gambling due to the accumulation of isolated symptoms should increase with age. But what about *clustered* symptoms? In 1999, the National Research Council's review of the literature indicated that the group most at risk for pathological gambling is young adults. This vulnerability may be especially exacerbated for individuals who have grown up with higher levels of acceptance and availability of gambling opportunities than earlier generations (Azmier, 2000). A direct implication of these points is that, if Shaffer and colleagues are correct about the fidelity of past-year scores in capturing clustered symptoms, past-year scores should correlate negatively with age. Therefore, if we were to find that past-year scores negatively correlate with age and lifetime scores positively correlate, this would support the superiority of past-year scores. Conversely, if we found lifetime scores negatively correlate but past-year scores not so, this would indicate that lifetime scores provide the preferable measure.

Methods

The data used here were collected as part of the Gambling Impact and Behavior Study, conducted in 1998-1999 by the National Opinion Research Center at the University of Chicago and partners at Gemini Research, Christiansen/Cummings Associates and The Lewin Group. The study was carried out for the congressionally appointed National Gambling Impact Study Commission. A full explication of the conduct of this study and its findings can be found in Toce-Gerstein, Gerstein and Volberg (in press) and Gerstein and colleagues (1999).

Participants

The Gambling Impact and Behavior Study included a random-digit-dial telephone survey and an in-person survey of gambling facility patrons. The telephone survey was designed to represent all adult U.S. household residents (age 18 or higher) at every level of gambling behavior, including no gambling activity. The telephone screening completion rate was 75.3% of households and the interview rate among eligible respondents was 73.7%, for a net response rate of 55.6%, comprising 2,417 adults who completed a 30-minute structured interview regarding their demographics, gambling behavior and attitudes and related factors, including a DSM-IV-based diagnostic screen for pathological gambling.

The patron survey was designed to sample gamblers randomly but in proportion to their frequency of gambling, in order to capture large additional numbers of frequent gamblers relative to the household survey. Five hundred thirty respondents completed 20-minute interviews. These respondents were chosen from a stratified sample of randomly selected gaming facilities in eight states, including tribal and nontribal casinos, riverboats, racetracks and lottery ticket outlets. The distribution of facilities was roughly proportional to the annual receipts of these facility types. Interview teams at each facility followed rigorous sampling rules to select and recruit respondents at random exits or main internal traffic corridors during staggered shifts. The interview completion rate across all venues was 50.0%, a rate comparable to high-quality RDD telephone surveys.

Sample selection, field procedures and related methodological details of the surveys were extensively reviewed by independent research experts and reported in detail in the final report to the Commission (see Gerstein et al., 1999). The report, instruments and datasets from the study are easily accessible via the Internet (see Author's notes at the end of the article).

Questionnaire

The structured interviews employed in both the telephone and patron-intercept surveys included a new diagnostic module for pathological gambling based on the DSM-IV criteria. The specific items that make up the NORC Diagnostic Screen (NODS) for gambling problems, with their corresponding DSM-IV criteria, are displayed in Table 1.

Prior to the deployment of the NODS, the screen was pilot-tested for reliability and validity in a random telephone sample of 45 respondents in the Chicago metropolitan area, as well as in a convenience sample of 40 persons recently enrolled in gambling treatment programs in several other states. Ninety-five percent of the clinical sample scored in the pathological range (five or higher) on the lifetime NODS and the remaining two cases scored four. The test-retest

reliability of the screen was investigated in a half-sample of 44 cases drawn equally from these clinical and telephone samples. Lifetime and past-year NODS scores were found to be highly reliable (Pearson r=0.99 and 0.98, respectively).

Of the 2,947 adults who participated in the two surveys, 2,602 reported any lifetime gambling behavior. Respondents were administered a detailed battery of questions concerning an exhaustive set of gambling types and venues. In our survey, a "gambler" was anyone who told us she or he had ever placed a bet, in the United States, in a casino, racetrack, jai alai fronton, off-track betting parlor, cardroom, or the Internet; or had purchased lottery tickets; played bingo; participated in charitable gambling; played private games such as dice or pool in someone's home; gambled on machines, pinball or pull-tabs in a store, bar, restaurant, truck stop, etc.; or engaged in illegal gambling. In order to limit costs associated with the survey, the NODS was administered only to those gamblers who reported ever losing more than $100 in a single day, or across a single year, gambling on one or more of these games. This resulted in a subset of 1,216 gamblers who were administered the NODS. Of these, 400 reported one or more DSM-IV criteria and 64 reported five or more.

The DSM-IV specifies that meeting five or more criteria establish a diagnosis of pathological gambling, thus dividing the symptomatic population into those reporting one to four criteria and those reporting five to 10. The taxonomy developed by NORC was comprised of low-risk gamblers (score of 0), at-risk gamblers (1 or 2), problem gamblers (3 or 4) and pathological gamblers (5 or more). For this investigation, we consider individuals both by level of taxonomy as well as across the range of possible NODS scores (0–10). These items were asked on a lifetime basis and the corresponding past-year items were asked of those who endorsed the lifetime item and reported gambling in the past year. A cross-tabulation of the past-year and lifetime results for the gamblers included in these analyses is summarized in Table 2.

Data analysis

In some previous reports that used these data to estimate overall U.S. population prevalence and correlates of problem and pathological gambling, the survey samples were merged and weighted using a dual-frame method [1]. This paper's objectives are better served by a simple unweighted aggregation of the two pertinent subsets of respondents. Among other advantages, this permitted the inclusion of 20 cases that were omitted from the weighted data due to the dual-frame sampling and permitted the use of Fisher's exact test, which cannot be performed on weighted data. As a check, the programs used for this investigation were run on the weighted and unweighted data where possible. The weighted results were similar to the unweighted results.

Results

Relative consistency

Figure 1 (based on Table 2) displays the distribution of past-year NODS scores according to the lifetime taxonomy (note that the past-year NODS score cannot be higher than the lifetime NODS score). These results do not accord with the predictions of differential concurrence. For at-risk and problem gamblers, about 37% were at the same level in the past year, while 48% of pathological gamblers were at the same level. Moreover, whereas the majority of lifetime at-risk gamblers and one-quarter of lifetime problem gamblers were without symptoms in the past year, only 6% of lifetime pathological gamblers were gambling without symptoms in the past year. Among pathological gamblers, the proportion of those gambling without symptoms was much smaller than the proportion who chose to abstain from gambling altogether (10.9%), in stark contrast to the pattern among the nonpathological gambling groups. As computed using the Fisher exact test, pathological gamblers are significantly more likely than problem gamblers (p=0.01; two-tailed) and at-risk or low-risk gamblers (p<0.001, two-tailed) to report abstaining from gambling in the past year than to report having gambled without symptoms.

As a separate test, we identified those gamblers in our sample who reported ever receiving any kind of help or treatment for gambling problems, including self-help groups or help from professionals (e.g., doctors, counselors). Only 10 respondents in the sample reported ever receiving such treatment, including one lifetime at-risk gambler (0.4% of the at-risk group), two problem gamblers (3.4% of the problem group) and seven pathological gamblers (10.9% of the pathological gamblers). Due to the modest proportion of pathological gamblers who reported receiving treatment, we compared the distribution of pathological gamblers by past-year score, both inclusive and exclusive of those who reported treatment, but found no discernable difference between these groups. It is interesting that none of the lifetime pathological gamblers who abstained from gambling in the past year reported having ever sought treatment.

Age relatedness

Overall, our sample (n=1,216) ranged in age from 18 to 92 years, a mean age of 46.7 years, a standard deviation of 15.4 and a median of 44 (modest positive skew). The distribution of lifetime NODS scores ranged from 0 to 10, with a mean of 0.8, standard deviation of 1.7 and a median of 0 — this distribution was highly skewed. The distribution of past-year NODS scores ranged from 0 to 10, with a mean of 0.44, standard deviation of 1.3 and a median of 0 — this distribution was also highly skewed. Age and the two NODS scores were transformed into their natural logarithms prior to calculation of Pearson correlations, in order to better

satisfy the assumption of normality. (The results were found to be very similar to the untransformed scores.)

A negative correlation coefficient was obtained between age and lifetime NODS score (r= – 0.08, p<0.01). The correlation between age and past-year NODS score was not significantly different from zero (r= – 0.05, p=0.35). These results contradict the hypothesis that lifetime scores overestimate true prevalence and support the use of the lifetime over the past-year measure.

We further split the sample into those respondents aged 30 years or younger at the time of the survey (n=197) and those aged 31 or older (n=1,019). Using log transformation, we found a significant negative correlation between age and lifetime score (r= – 0.21, p<0.01) and between age and past-year score (r= – 0.18, p=0.02) among the younger group. For older respondents, neither the lifetime (r=0.02, p=0.6) nor the past-year (r=0.03, p=0.34) correlation was significant. (This finding of no correlation was replicated in subsets of the older group, ages 31–40 (n=294), 31–50 (n=554), 31–60 (n=770) and each remainder age group, 41+ (n=725), 51+ (n=465) and 61+ (n=249)).

These results do not support that lifetime scores overestimate prevalence; they do suggest the possibility either of a cohort effect or of a difference in the ways that the very youngest age group interprets NODS items.

Finally, we checked whether any specific lifetime criteria were correlated with respondent age, using t tests to compare the mean age of all respondents who reported a criterion to the mean age of respondents who did not report that criterion. All age means for individual items fell between 42 and 47 years and the mean age of respondents reporting the criterion was younger than for those not reporting for each of the 10 items; however, all these differences were not significant except for the younger age of those reporting withdrawal (p<0.01), chasing (p<0.02) and tolerance (p<0.05).

Discussion

Neither the concept of the chase elaborated by Professor Lesieur nor the quantitative diagnostic approach promulgated in the DSM-IV suggests that a short-term measure such as a "past-year" timeframe would be the ideal method for representing the temporal dimension of the chronic disorder of pathological gambling. Nevertheless, it seems important to investigate the issue of symptom concurrence or clustering as a potential supplemental criterion for pathological gambling. This is due in part to its status as a methodological issue as argued by Shaffer and associates (1997) and in part because, in our experience, this argument is often seized on by industry advocates as grounds for casting discredit

on epidemiological studies of pathological gambling.

In this analysis, we have asked whether evidence developed in two national, retrospective, cross-sectional datasets is compatible with a theory of differential concurrence, namely, that past-year measures capture symptom concurrence better than lifetime measures, making them more suitable for estimating the prevalence of pathological gambling.

Neither test supports the speculative advantage ascribed to past-year measures. We conclude that lifetime measures are at least as appropriate as past-year to implement DSM-IV concepts in cross-sectional epidemiological surveys. Indeed, there is better conceptual fit between the long view taken by lifetime measures and the definitional approach of the DSM-IV, with its roots in Lesieur's work. We, therefore, consider lifetime measures to be the natural default, at least until further research leads to refinements for which empirical evidence gives positive support to claims of greater accuracy.

Some students of pathological gambling may argue that, these methodological findings notwithstanding, only a past-year timeframe can yield a valid measure of current or *active case* prevalence — in other words, that an active case of pathological gambling is best defined as a person who meets five or more criteria all within the past year. The DSM does not specify this, but neither does it rule out the possibility of introducing such a refinement. However, it is equally plausible and consistent with the DSM-IV to argue that an active case should be defined as anyone with a history (lifetime prevalence) of pathological gambling who exhibits one or more criteria in the past year — as is true of 83% of this study sample of pathological gamblers.

Any conclusion about the appropriate level and severity of past-year items needs to be investigated and validated empirically, not rhetorically. An interest in advancing the level of empirical inquiry is what inspired the present analysis, which is admittedly based on a limited data resource — but no more limited than the data available to others who prefer alternative arguments. We believe that more extensive natural histories of symptom onset, concurrence, remission and relapse in the general population of gamblers would be more than welcome to epidemiologists and other researchers, whether derived retrospectively or through the use of repeated longitudinal panel interviews.

The conclusions we can draw from the existing data are limited in several ways. Our results could be biased if individuals at different levels of problems had different propensities to forget or deny individual items that occurred in the distant past. There is no evidence to suggest that such propensities differ by gambling level, but that does not rule out the possibility. Also, in this survey, as in nearly all others now available, respondents who experienced criteria in the past year were

not asked whether they had also experienced the same criteria prior to the past year. We therefore cannot determine with precision what proportion of past-year pathological gamblers first qualified for that designation in the past year — that is, we do not know about the incidence of the disorder, only its prevalence. In view of the "persistent and recurrent" characteristics of pathological gambling and the median age (mid-forties) of those in this category, it is implausible that the incidence rate in the year just before the survey was appreciably more than 5% to 10% of total prevalence.

A final limitation of the data pertains to a filter question used in the survey. The NODS was administered only to those respondents who acknowledged that they had ever lost $100 or more net on gambling in their lifetimes. The NODS developers chose to use this filter after pretesting indicated that infrequent gamblers grew impatient with repeated questions about gambling-related problems, seriously compromising survey response rates. At the time the NODS was being developed, the authors reviewed data from a number of recent state-level surveys and found that respondents who had never experienced significant losses did not report problems related to their gambling (see for example, Volberg, 1997a, 1997b). Evidence has since surfaced from one state in which a small but significant number of impoverished gamblers who spent little actual cash on their gambling nevertheless experienced gambling problems and, in a couple of cases, even pathology (Volberg, 2000). However, we believe that the greatest impact this restriction had on our analysis was in filtering out a larger proportion of low-risk and at-risk gamblers relative to other groups in our taxonomy.

Notes

Footnotes

[1.] The dual-frame weighting method used sample weights to match the overall sample to key national characteristics such as sex, income, race and education, based on contemporary population counts and estimates published by the U.S. Census Bureau.

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Figures

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Figure 11

Past-year NODS scores
of at-risk, problem and
pathological gamblers

Tables

Table 1.

DSM-IV criteria and matched NODS questions*

Label	Source	Text
Preoccupation	DSM-IV**	"is preoccupied with gambling (e.g., preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)"
	NODS #1	Have there ever been periods lasting 2 weeks or longer when you spent a lot of time thinking about your gambling experiences or planning out future gambling ventures or bets? OR
	NODS #2	Have there ever been periods lasting 2 weeks or longer when you spent a lot of time thinking about ways of getting money to gamble with?
Tolerance	DSM-IV	"needs to gamble with increasing amounts of money in order to achieve the desired excitement"
	NODS #3	Have there ever been periods when you needed to gamble with increasing amounts of money or with larger bets than before in order to get the same feeling of excitement?
Withdrawal	DSM-IV	"is restless or irritable when attempting to cut down or stop gambling"
	NODS #4	Have you ever tried to stop, cut down, or control your gambling? AND
	NODS #5	On one or more of the times when you tried to stop, cut down, or control your gambling, were you restless or irritable?
Loss of control	DSM-IV	"has repeated unsuccessful efforts to control, cut back, or stop gambling"
	NODS #6	Have you ever tried but not succeeded in stopping, cutting down, or controlling your gambling? AND
	NODS #7	If so, has this happened three or more times?
Escape	DSM-IV	"gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)"
	NODS #8	Have you ever gambled as a way to escape from personal problems? OR
	NODS #9	Have you ever gambled to relieve uncomfortable feelings such as guilt, anxiety, helplessness, or depression?
Chasing	DSM-IV	"after losing money, often returns another day to get even ("chasing" one's losses)"
	NODS #10	Has there ever been a period when, if you lost money gambling one day, you would return another day to get even?
Lying	DSM-IV	"lies to family members, therapist, or others to conceal the extent of involvement with gambling"
	NODS #11	Have you ever lied to family members, friends, or others about how much you gamble or how much money you lost on gambling? AND
	NODS #12	If so, has this happened three or more times?
Illegal acts	DSM-IV	"has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling"
	NODS #13	Have you ever written a bad check or taken money that didn't belong to you from family members or anyone else in order to pay for your gambling?
Risked relationships	DSM-IV	"has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling"
	NODS #14	Has your gambling ever caused serious or repeated problems in your relationships with any of your family members or friends? OR
	NODS #15	ASK ONLY IF R IS IN SCHOOL Has your gambling caused you any problems in school, such as missing classes or days of school or your grades dropping? OR
	NODS #16	Has your gambling ever caused you to lose a job, have trouble with your job, or miss out on an important job or career opportunity?
Bailout	DSM-IV	"relies on others to provide money to relieve a desperate financial situation caused by gambling"
	NODS #17	Have you ever needed to ask family members or anyone else to loan you money or otherwise bail you out of a desperate money situation that was largely caused by your gambling?

Table 2

Patterning of past-year NODS scores among lifetime gamblers

	Past-year status				
Lifetime status	Nongambler (n=117)	Low-risk (n=902)	At-risk (n=131)	Problem (n=35)	Pathological (n=31)
Low-risk (n=816)	10.4	89.6	—	—	—
At-risk (n=278)	8.3	54.7	37.1	—	—
Problem (n=58)	3.4	25.9	34.5	36.2	—
Pathological (n=64)	10.9	6.3	12.5	21.9	48.4

Note: Low-risk indicates a NODS score of 0; at-risk, 1–2;

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- Article

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