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This chapter examines problem and pathological gambling among college students and reports on prevalence rate, risk and protective factors, prevention and intervention, and recommendations for college student personnel and other university administrators.

Problem and Pathological Gambling Among College Students

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College students exhibit a continuum of gambling behavior, from none to experimenting with gambling, to regular gambling, to excessive gambling with concomitant adverse consequences. Many college students gamble. Most do not experience adverse consequences, but there are a small percentage who become problem gamblers (Winters, Bengston, Dorr, and Stinchfield, 1998).

Many youths begin gambling at an early age, even earlier than they begin other risky behaviors such as tobacco and alcohol use (Ladouceur, Dube, and Bujold, 1994a; Stinchfield, 2004). A longitudinal study that followed an adolescent sample into young adulthood found that rates of gambling and problem gambling remained fairly stable over time; however, there was a shift away from informal games to legalized games as youths came of legal age (Winters, Stinchfield, and Kim, 1995). Some young men and women recently arrived at college have begun participating in legalized gambling, a new “rite of passage” for many young adults, while others will go through this rite for the first time in college. Still other students have been gambling for years informally through betting on games of personal skill, cards, and sporting events.

This chapter, which is divided into five sections, presents information related to problem and pathological gambling by college students. In the first section, we present an overview of problem and pathological gambling, including definitions, prevalence rates, and signs and symptoms. In the sec-

ond section, we discuss risk and protective factors associated with college student gambling. In the third section, we briefly describe problem gambling screening and assessment instruments. In the fourth section, we highlight existing prevention and intervention approaches that are geared toward college students. Finally, we conclude by offering recommendations for future research on this important, yet generally understudied, topic.

Problem and Pathological Gambling

Problem gambling is not defined by how often someone gambles or how much money the person loses. Rather, it is defined by whether or not the individual's life is disrupted by the gambling—namely, if gambling takes precedence over other activities and the individual experiences adverse consequences because of gambling. For a college student, adverse consequences may include loss of money that was intended for tuition or room and board, missing classes thanks to gambling, sleep deprivation caused by gambling through the night at a casino or online, and failing grades, to name a few. Though many labels and terms have been bantered about, the most commonly used terms are *problem gambling* and *pathological gambling*. Problem gambling is a general term referring to all individuals who have any problems associated with their gambling, including those who are diagnosed as pathological gamblers.

In contrast, pathological gambling (PG) is a psychiatric diagnosis, limited to only those individuals who satisfy the diagnostic criteria described in the *Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition* (DSM-IV; American Psychiatric Association, 1994). PG was first identified as a mental disorder by the APA in 1980 and is defined as a persistent and recurrent maladaptive gambling behavior that disrupts personal, family, or vocational pursuits (American Psychiatric Association, 1994). The three cardinal signs of PG are (1) preoccupation with gambling and obtaining money with which to gamble; (2) loss of control of one's gambling, that is, not following reasonable limits of time and money spent on gambling; and (3) continuation of gambling despite adverse consequences, such as continuing to gamble in spite of losing large sums of money. The diagnostic criteria for PG are similar to those of substance use disorders and share a number of signs and symptoms, such as tolerance and withdrawal.

How many college students are problem gamblers? A number of surveys have yielded the prevalence rate of problem gambling among college samples (Shaffer, Hall, and Vander Bilt, 1997). Lesieur and others (1991) administered the South Oaks Gambling Screen (SOGS) to 1,771 students on multiple campuses across New York, New Jersey, Nevada, Oklahoma, and Texas. They found that 9.3 percent of the men and 2.4 percent of the women scored in the probable pathological gambling (PPG) range. Winters, Bengston, Dorr, and Stinchfield (1998) administered the SOGS to 1,361 students on two

college campuses in Minnesota and found that 4.9 percent of men and 1.0 percent of women scored in the PPG range. Engwall, Hunter, and Steinberg (2004) gave a modified version of the SOGS to 1,350 students on four campuses of Connecticut State University during the fall of 2000 and found that 8.5 percent of the men and 1.9 percent of the women scored in the PPG range. Ladouceur, Dube, and Bujold (1994b) used the SOGS with 1,471 students at three colleges in Quebec and found 5.7 percent of the men and 0.6 percent of the women scoring in the PPG range. If we summarize these four studies, we find that approximately 5–9 percent of men and 1–2 percent of women are PPG on college campuses in North America.

Risk and Protective Factors Associated with College Student Gambling

Although much has been written about “correlates,” or factors, associated with problem gambling among the general public, relatively little has been written about factors associated with college student gambling (LaBrie, Shaffer, LaPlante, and Wechsler, 2003; Lesieur and others, 1991; Stinchfield and Winters, 2004; Winters, Bengston, Dorr, and Stinchfield, 1998). However, in a recent large-scale, nationwide survey of 10,765 college students, LaBrie, Shaffer, LaPlante, and Wechsler (2003) identified twenty-seven factors that “. . . were significantly associated with the decision to gamble . . .” (p. 58). Rather than discuss each of these factors individually, we highlight the most salient ones, including prominent risk factors such as substance abuse and dependence, gender, and ethnicity. We will highlight, to the extent possible, salient protective factors.

Out of all possible risk factors, one of the most salient is substance use, abuse, and dependence. The link between alcohol, illicit drug, and tobacco use and gambling and problem gambling is strong, having been firmly established in the empirical literature (Clark, 2003; Engwall, Hunter, and Steinberg, 2004; Giacomassi, Stitt, and Vandiver, 1998; LaBrie Shaffer, LaPlante, and Wechsler, 2003; Ladouceur, Dube, and Bujold, 1994b; Welte and others, 2004; Winters, Bengston, Dorr, and Stinchfield, 1998). In the majority of studies conducted on this topic, heavy alcohol use was highly predictive of problem gambling. In one study, for example, it was associated with the size of bets made while gambling, unanticipated withdrawal of extra money at the casino, and loss of more money than could be reasonably afforded (Giacomassi, Stitt, and Vandiver, 1998). Thus, the gambling-substance relationship, though not necessarily causal in nature, appears to be robust, especially for men.

In terms of gender, males are more involved in gambling than females (Kweitel and Allen, 1998; LaBrie, Shaffer, LaPlante, and Wechsler, 2003; Platz, Knapp, and Crossman, 2005; Stinchfield, 2000; Welte and others, 2004; Winters, Bengston, Dorr, and Stinchfield, 1998), and males also have

a higher rate of problem gambling than females (Ladouceur, Dube, and Bujold, 1994b; Lesieur and others, 1991; Shaffer, Hall, and Vander Bilt, 1997; Winters, Bengston, Dorr, and Stinchfield, 1998). Consequently, gender is another salient risk factor. It is unclear, though, whether the observed gender differences relate to male-female differences in other areas—for example, general motivation to gamble (Neighbors and Larimer, 2004; Neighbors, Lostutter, Cronce, and Larimer, 2002), issues of perceived control (Baboushkin, Hardoon, Derevensky, and Gupta, 2001)—or to personality and cognitive variables such as impulsivity, sensation seeking, and risk taking (Breen and Zuckerman, 1999; Langewisch and Frisch, 1998).

Ethnicity, like gender, is yet another salient risk factor. Studies have shown that individuals who are ethnically diverse (for example, African American, Asian American) tend to gamble more often than their European American counterparts (Lesieur and others, 1991; Stinchfield, 2000; Welte and others, 2004). In fact, Welte and colleagues (2004) concluded, in their nationally representative survey study of adults, that “. . . being African American, Hispanic, or Asian and having low SES are significant risk factors for pathological gambling, even after taking into account gambling frequency, size of wins and losses, number of types of gambling, substance use, and criminal offending” (p. 332). Far too few studies have been conducted, however, on this factor to make any definitive conclusions.

The explanatory value of ethnicity and for that matter gender as mediating variables is, at best, limited, and at worst more-or-less unknown. Knowing that a college student is, for example, an African American male tells you little if anything about the extent of problem gambling risk that the student actually experiences. It is more important, therefore, to pay attention to other known risk factors, such as a student’s overall level of gambling activity, or “volume,” general gambling versatility (pull tabs *and* casinos; Welte and others, 2004), tendency to minimize losses (Baboushkin, Hardoon, Derevensky, and Gupta, 2001), general academic performance (LaBrie, Shaffer, LaPlante, and Wechsler, 2003; Winters, Bengston, Dorr, and Stinchfield, 1998), and typical leisure or extracurricular activities (time spent watching television, participation in athletics; LaBrie, Shaffer, LaPlante, and Wechsler, 2003). It is also important to pay attention to parental or guardian history of gambling (Lesieur and others, 1991; Winters, Bengston, Dorr, and Stinchfield, 1998). As noted by Winters and colleagues (1998), “. . . the relative risk of problem gambling is about three to five times greater when the family history is positive . . .” (p. 133).

Although the research presented thus far has focused on risk factors, we want to mention two known protective factors: one’s belief that the arts and religion are important, and having a parent who has a college degree (LaBrie, Shaffer, LaPlante, and Wechsler, 2003). More research is clearly needed on factors of this type, factors that may help protect or buffer college students from the negative consequences of problem gambling.

Being familiar with risk and protective factors is an important first step in early recognition of college students who may be gambling excessively. However, to distinguish reliably between those students who gamble for fun, with no attendant problems, and those who gamble pathologically, one also needs to be familiar with more formal, psychometrically sound screening and assessment instruments, a few of which are discussed in the next section.

Problem and Pathological Gambling Screening and Assessment Instruments

College student counseling services need to be able to screen for problem gambling in order to plan for and provide appropriate referral and treatment services (Lesieur and others, 1991). Most problem gambling instruments are relatively new and have not received rigorous psychometric evaluation (National Research Council, 1999). There is also a paucity of research on the measurement of problem gambling among special populations in general, and college students in particular. In most research on problem gambling among college students, existing instruments designed for adults have been used. Most of these instruments assess some or all of the diagnostic criteria listed in the DSM-IV (APA, 1994). Two instruments are briefly described here; for a more thorough description of gambling assessment instruments, see Stinchfield, Govoni, and Frisch (2004).

The most commonly used instrument to assess problem gambling is the South Oaks Gambling Screen (SOGS), developed by Lesieur and Blume (1987). The SOGS has extensive testing of its reliability, validity, and classification accuracy (Lesieur and Blume, 1987; Stinchfield, 2002). The twenty-item SOGS is scored by summing the number of items endorsed; a cut score of 5 or more indicates PPG. The content of the SOGS includes items that inquire about spending more time or money gambling than intended, hiding evidence of one's gambling, arguing with family members about one's gambling, and borrowing money from a variety of sources to gamble or pay gambling debts.

The Gambling Behavior Interview (GBI) is a seventy-six-item instrument designed to measure signs and symptoms of problem gambling (Stinchfield, 2002, 2003; Stinchfield, Govoni, and Frisch, 2005). The GBI has a past-twelve-months time frame and may be administered in approximately fifteen minutes, or a much shorter time if the respondent has not gambled in the past twelve months. The GBI is made up of eight content domains: (1) gambling attitudes (four items), (2) gambling frequency of different games (fifteen), (3) time and money spent gambling (four), (4) gambling frequency at different venues (seven), (5) South Oaks Gambling Screen (twenty-five), (6) DSM-IV diagnostic criteria (ten), (7) research diagnostic

items (thirty-two), and (8) demographics (nine items). The DSM-IV items from the GBI were used in the NCAA survey of gambling among college athletes (National Collegiate Athletic Association, 2004).

Implications for College Student Counseling Staff Regarding Prevention and Intervention

Given that a small but significant proportion of college students have a gambling problem, secondary prevention efforts are needed in college settings to help those students identified as problem gamblers, similar to efforts already under way on college campuses with hazardous drinkers. College personnel are in a unique position to provide help to students who are at risk for developing gambling problems. This section outlines a number of services that colleges may offer, such as information and education, screening, referral, and brief interventions.

Awareness, Information, and Education. Doing something is better than nothing; that is, even simple educational materials in the form of pamphlets and literature that may be distributed to college students on how to identify gambling problems and access help on the campus or in the community may be a good place to start. These materials can be distributed at new student orientation, or imbedded in health education provided in medical and mental health centers on campus, with other literature on common high-risk behaviors such as heavy drinking and substance abuse. Awareness and education for the general student body should focus on guidelines for responsible gambling. Abstinence from gambling is the only way to completely avoid risk, but if the student chooses to gamble he or she needs to place limits on time and money spent gambling. Also, information can be disseminated about warning signs of problem gambling, including excessive time and money spent gambling, skipping classes to gamble, gambling when the student should be studying or sleeping, to name a few.

Screening. Lesieur and colleagues (1991) suggested that all college students who come to the counseling center for mental health problems be screened for problem gambling. University medical clinics and counseling centers might embed questions about gambling problems in their standard mental health screening, along with questions about smoking, drinking, drug use, and other high-risk behaviors. Another tack would be to administer brief screening tools, such as the aforementioned SOGS, as a routine part of intake and history gathering at these college care settings.

Referral. Counseling personnel should, at a minimum, furnish information on community resources that are available to help students who are identified as problem gamblers. Community resources include gambling help lines, Gamblers Anonymous (GA) meetings, and professional counseling services.

Treatment. Studies on youth gambling indicate that problem gambling is usually part of a constellation of related problems, including antisocial behavior, alcohol and other drug use, and attention and learning problems, to name a few (Gupta and Derevensky, 1998). Treatment methods used with young problem gamblers are similar to the approaches used with adults (for example, cognitive-behavioral treatments) with some changes to accommodate developmental issues. It is too early to make any conclusions about what treatment is most appropriate or most effective for college students.

That said, designated student counseling staff could learn how to administer brief intervention strategies to help college students with gambling problems. Examples of brief treatment strategies have been outlined by Takushi and others (2004) and Ladouceur, Sylvain, and Boutin (2000). Takushi and associates developed a brief one-session intervention strategy and have written a manual describing how to administer this treatment. The strategy, designed specifically for college students, integrates cognitive behavioral skills training and motivational interviewing including personalized normative feedback, cognitive correction, discussion of gambling consequences, and relapse prevention techniques. The intervention has shown promise in reducing high-risk gambling among college students. In addition, Ladouceur, Sylvain, and Boutin (2000) outlined a brief-intervention strategy for assessing and treating problem gambling, which may be a good strategy for working with college students identified as problem gamblers. First, the SOGS is used to identify those students who are PPG. If the SOGS is positive, a semistructured interview is employed to identify the nature and history of the gambling problem (triggers, nature, extent, consequences of gambling behavior). Because of the high prevalence of substance abuse, anxiety, and depression in pathological gamblers, Ladouceur, Sylvain, and Boutin (2000) also recommend that therapists use additional questionnaires and the interview to determine the relationship between gambling and other co-morbid problems. Ladouceur and colleagues suggest a cognitive behavioral treatment approach aimed at correcting misconceptions about the basic notion of randomness. The cognitive correction includes helping the pathological gambler understand the concepts of randomness, erroneous beliefs, inaccurate perceptions that dominate one's thinking while gambling, and how to question the validity of various erroneous thoughts. This approach may take fifteen or so meetings with the college student and may be better suited to those who have more serious problems with gambling, as well as with those with comorbid substance abuse, anxiety, or depression.

Summary, Conclusions, and Recommendations

Today's college students are the first generation of youths to grow up in a culture of widespread legalized gambling and its promotion (Shaffer, Hall, Vander Bilt, and George, 2003). Yet few colleges have student policies or

services regarding gambling (Shaffer and others, 2005). With this in mind, we offer these recommendations for practitioners at colleges and universities:

- Monitor college student gambling behavior, including extent of gambling, illegal gambling, and problem gambling.
- Develop student policies for gambling that emphasize rehabilitation rather than punishment (Shaffer and others, 2005).
- Conduct research into the cause, development, maintenance, and cessation of problem gambling, with an emphasis on risk and protective factors.
- Develop and evaluate prevention programs and messages designed specifically for college students.
- Provide treatment services for students who have already developed a gambling problem.

Regarding the last two recommendations, prevention efforts aimed at a general college student population may primarily teach guidelines for money and time spent gambling. Young adults need to be given information and offered appropriate resources to help them make healthy and informed decisions about gambling. Some students may only need information to assist them in making decisions about gambling, while other students will require more intensive prevention and intervention efforts, in part because they are already gambling in excess and experiencing adverse consequences. These students require more individually tailored prevention and intervention approaches, such as brief cognitive-behavioral interventions. It makes sense to establish a continuum of services on the college campus, including public awareness, prevention, assessment, brief interventions, referrals (help line, treatment in the community, and GA), and on-campus gambling treatment services.

We have made significant inroads in recognizing and understanding gambling and problem gambling among college students. As researchers and college student personnel staff continue attending closely to issues discussed in this chapter, the overall health, well-being, and personal and academic development of college students will be improved.

References

- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). Washington, D.C.: APA, 1994.
- Baboushkin, H. R., Hardoon, K. K., Derevensky, J. L., and Gupta, R. "Underlying Cognitions in Gambling Behavior Among University Students." *Journal of Applied Social Psychology*, 2001, 31, 1409–1430.
- Breen, R. B., and Zuckerman, M. "'Chasing' in Gambling Behavior: Personality and Cognitive Determinants." *Personality and Individual Differences*, 1999, 27, 1097–1111.
- Clark, D. "Gambling and the Trait of Addiction in a Sample of New Zealand University Students." *New Zealand Journal of Psychology*, 2003, 32, 39–48.

- Engwall, D., Hunter, R., and Steinberg, M. "Gambling and Other Risk Behaviors on University Campuses." *Journal of American College Health*, 2004, 52, 245–255.
- Giacopassi, D., Stitt, B. G., and Vandiver, M. "An Analysis of the Relationship of Alcohol to Casino Gambling Among College Students." *Journal of Gambling Studies*, 1998, 14, 135–149.
- Gupta, R., and Derevensky, J. "An Empirical Examination of Jacob's General Theory of Addictions: Do Adolescent Gamblers Fit the Theory?" *Journal of Gambling Studies*, 1998, 14, 17–49.
- Kweitel, R., and Allen, F.C.L. "Cognitive Processes Associated with Gambling Behaviour." *Psychological Reports*, 1998, 82, 147–153.
- LaBrie, R. A., Shaffer, H. J., LaPlante, D. A., and Wechsler, H. "Correlates of College Student Gambling in the United States." *Journal of American College Health*, 2003, 52, 53–62.
- Ladouceur, R., Dube, D., and Bujold, A. "Gambling Among Primary School Students." *Journal of Gambling Studies*, 1994a, 10, 363–370.
- Ladouceur, R., Dube, D., and Bujold, A. "Prevalence of Pathological Gambling and Related Problems Among College Students in the Quebec Metropolitan Area." *Canadian Journal of Psychology*, 1994b, 39, 289–293.
- Ladouceur, R., Sylvain, C., and Boutin, C. "Pathological Gambling." In M. Hersen and M. Biaggio (eds.), *Effective Brief Therapies: A Clinician's Guide*. New York: Academic Press, 2000.
- Langewisch, M.W.J., and Frisch, G. R. "Gambling Behavior and Pathology in Relation to Impulsivity, Sensation Seeking, and Risky Behavior in Male College Students." *Journal of Gambling Studies*, 1998, 14, 245–262.
- Lesieur, H. R., and Blume, S. B. "The South Oaks Gambling Screen (SOGS): A New Instrument for the Identification of Pathological Gamblers." *American Journal of Psychiatry*, 1987, 144, 1184–1188.
- Lesieur, H. R., Cross, J., Frank, M., Welch, M., White, C. M., Rubenstein, G., Mosely, K., and Mark, M. "Gambling and Pathological Gambling Among University Students." *Addictive Behaviors*, 1991, 16, 517–527.
- National Collegiate Athletic Association. *2003 NCAA National Study on Collegiate Sports Wagering and Associated Behaviors*. Indianapolis, Ind.: NCAA, 2004.
- National Research Council. *Pathological Gambling: A Critical Review*. Washington, D.C.: National Academy Press, 1999.
- Neighbors, C., and Larimer, M. E. "Self-Determination and Problem Gambling Among College Students." *Journal of Social and Clinical Psychology*, 2004, 23, 565–583.
- Neighbors, C., Lostutter, T. W., Cronce, J. M., and Larimer, M. E. "Exploring College Student Gambling Motivation." *Journal of Gambling Studies*, 2002, 18, 361–370.
- Platz, L., Knapp, T. J., and Crossman, E. W. "Gambling by Underage College Students: Preferences and Pathology." *College Student Journal*, 2005, 39, 3–4.
- Shaffer, H. J., Donato, A. N., LaBrie, R. A., Kidman, R. C., and LaPlante, D. A. "The Epidemiology of College Alcohol and Gambling Policies." *Harm Reduction Journal*, 2005, 2, 1–20.
- Shaffer, H. J., Hall, M. N., and Vander Bilt, J. *Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Meta-Analysis*. Boston: Presidents and Fellows of Harvard College, 1997.
- Shaffer, H. J., Hall, M. N., Vander Bilt, J., and George, E. (eds.). *Futures at Stake: Youth, Gambling, and Society*. Reno: University of Nevada Press, 2003.
- Stinchfield, R. "Gambling and Correlates of Gambling Among Minnesota Public School Students." *Journal of Gambling Studies*, 2000, 16, 153–173.
- Stinchfield, R. "Reliability, Validity, and Classification Accuracy of the South Oaks Gambling Screen (SOGS)." *Addictive Behaviors*, 2002, 27, 1–19.

- Stinchfield, R. "Reliability, Validity, and Classification Accuracy of a Measure of DSM-IV Diagnostic Criteria for Pathological Gambling." *American Journal of Psychiatry*, 2003, 160, 180–182.
- Stinchfield, R. "Demographic, Psychosocial, and Behavioral Factors Associated with Youth Gambling and Problem Gambling." In J. Derevensky and R. Gupta (eds.), *Gambling Problems in Youth: Theoretical and Applied Perspectives*. New York: Kluwer Academic/Plenum, 2004.
- Stinchfield, R., Govoni, R., and Frisch, R. G. "Screening and Assessment Instruments." In J. E. Grant and M. N. Potenza (eds.), *Pathological Gambling: A Clinical Guide to Treatment*. Washington, D.C.: American Psychiatric, 2004.
- Stinchfield, R., Govoni, R., and Frisch, R. G. "DSM-IV Diagnostic Criteria for Pathological Gambling: Reliability, Validity, and Classification Accuracy." *American Journal on Addictions*, 2005, 14, 73–82.
- Stinchfield, R., and Winters, K. C. "Adolescents and Young Adults." In J. E. Grant and M. N. Potenza (eds.), *Pathological Gambling: A Clinical Guide to Treatment* (pp. 69–81). Washington, D.C.: American Psychiatric, 2004.
- Takushi, R. Y., Neighbors, C., Larimer, M. E., Lostutter, T. W., Cronce, J. M., and Marlatt, G. A. "Indicated Prevention of Problem Gambling Among College Students." *Journal of Gambling Studies*, 2004, 20, 83–93.
- Welte, J. W., Barnes, G. M., Wieczorek, W. F., Tidwell, M-C. O., and Parker, J. C. "Risk Factors for Pathological Gambling." *Addictive Behaviors*, 2004, 29, 323–335.
- Winters, K. C., Bengston, P., Dorr, D., and Stinchfield, R. "Prevalence and Risk Factors of Problem Gambling Among College Students." *Psychology of Addictive Behaviors*, 1998, 12, 127–135.
- Winters, K. C., Stinchfield, R., and Kim, L. "Monitoring Adolescent Gambling in Minnesota." *Journal of Gambling Studies*, 1995, 11, 165–184.

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