

The background of the page is a faded, light-colored image of a roulette wheel. The wheel's grid and numbers are visible, though not sharp. In the upper-middle part of the wheel, there is a small rectangular sign with the words 'YES' and 'NO' written on it. The overall color palette is a soft, muted red or maroon.

FESTERING BENEATH THE SURFACE: GAMBLING AND COLLEGE STUDENTS

**ILLINOIS HIGHER EDUCATION CENTER
FOR ALCOHOL, OTHER DRUG AND VIOLENCE PREVENTION**

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Research suggests the contemporary, traditional aged college student is experiencing more stress-related psychological and emotional problems while enrolled in institutions of higher education (Bishop, Bauer, & Becker, 1998; Duenwald, 2002; Murphy & Archer, 1996; Peterson, 2002; Reisburg, 2000; Schwartz, 2003). A variety of self-reported variables contribute to rising stress levels, including worries about college prices, relationships, grades, standardized tests, finding employment, career expectations, and the uncertainty of international affairs and terrorism (Jerousek, 2002; Twenge, 2001). Not surprisingly, stress among college students is linked to alcohol and drug abuse, mental illness, depression, and even suicide (Franey, 2002; Guinagh, 1992; Twenge, 2001). The behaviors of college students related to stress, and the negative consequences associated with them, have been subject to a significant amount of media attention and are at the forefront of many institutional and public agendas.

While drug and alcohol abuse are commonly associated with the collegiate experience, for decades the problem of gambling behavior among college students has been festering just beneath the awareness of public and university leaders. Indeed, gambling among college students is probably the most prevalent of student behaviors receiving the least amount of attention (Dunne, 1985; Shaffer, Forman, Scanlan, & Smith, 2000). Perhaps this is because for most individuals, gambling is a harmless and enjoyable activity. For many others, however, gambling is highly associated with destructive behaviors. The purpose of this study is to raise awareness of the silent addiction of gambling among college students through a review of the existing literature related to gambling prevalence, risk factors, administrative awareness, and potential prevention efforts.

The last twenty years have seen a dramatic public policy shift towards legalized gambling, with nearly every state legalizing some form of gambling (Ackerman & Piper, 1996; National Opinion Research Center, [NORC], 1999; Volberg, Dickerson, Ladouceur, & Abbott, 1996). The unprecedented rise in legalized gambling has created unparalleled access to gaming venues for today's youth and, coupled with a decreasing age at which most youth first experience gambling, has created a societal context where gambling is accepted as a normal part of culture (Jacobs, 2000). Not surprisingly, gambling in general, but particularly among young adults, has increased significantly (Jacobs, 2000).

With the increased visibility of sporting events, a wired collegiate atmosphere that lends itself to anonymity, ready access to credit cards, highly aggressive marketing strategies by bookies or "sports touts" and casinos, the opportunity to make fast money when faced with many expenses, and more acceptance of gambling as a normal social activity, perhaps it should come as no surprise that gambling is prevalent among college students (Gose, 2000; Rafenstein, 2000; Saum, 1999). As Sperber (2000) points out:

Risk-taking is central to the collegiate subculture in a more subtle but often hazardous preoccupation with gambling. Yet gambling has become so accepted and mainstream in contemporary American society that few college students consider it a social malady and potential addiction.

One study indicated that 90% of college student males and 82% of females gambled at least once in the past year (Oster & Knapp, 1998), while another showed that between 70% and 90% of college students reported gambling in some form during the past year (Shaffer, Hall & Vander Bilt, 1997; Winters, 2002). Several studies have shown that almost 25% of college students gamble at least once a week (Ackerman & Piper, 1996). About 33% of male college students and about 15% of female students gamble at least once a week (Oster & Knapp, 1998; Saum, 1999). Between 4% to 8% of college students can be classified as "pathological gamblers," with the rates of male pathological gamblers being much higher than female (Lesieur, 1995; The motivated scholar, 2002; Oster & Knapp, 1998; Platz & Millar, 2001; Shaffer, Hall, & Vander Bilt, 1997). The percentage of college students who are "pathological gamblers" is much higher than in the general adult population (Ackerman & Piper, 1996; Rafenstein, 2000).

The result of pathological and, in some cases, even regular gambling can be devastating. Many studies reflect a clear association between gambling and drug abuse (Winters & Anderson, 2000), delinquency (Gupta & Derevensky, 2000), alcohol abuse (Giacopassi, Stitt, & Vandiver, 1998), cigarette smoking and other illegal activities (Gupta & Derevensky, 1998). Many college students have participated in a variety of illegal activities like theft (Hecht, 1995), been convicted for organizing illegal campus gambling rings (Grand jury indicts 8 on gambling charges, 1992; Layden, 1995; McCollum & Wanat, 1997; Michigan state students arrested for gambling, 1994; Sperber, 2000; Two New York students

accused in roles in sports-gambling ring, 1998; University of Texas students held for running betting ring, 1989), point-shaving schemes (Naughton & Selingo, 1998; Suggs, 1999a) and even hiring "hit men" to collect negligent debts (Gose, 2000).

Gambling, in and of itself, is a benign activity. Millions of adults participate in gambling with few or no negative consequences. Value judgements aside, however, gambling has the potential to become an addictive activity and, when taken to excessive levels, can lead to many negative consequences. As Winters (2002) notes:

Gambling appears to be a common and benign experience for most college students. Yet we found that a sizable percentage of college students gamble excessively and already show some of the signs of a gambling problem. Given that developmental studies have linked precocious addictive-like behaviors, such as smoking and alcohol abuse, to adult addictive disorders, and considering that our problem gamblers report other risk factors, the early gambling behaviors and consequences may portend continuing problems for these individuals.

Defining pathological gambling

Pinpointing the destructive nature of gambling involves determining the moment when a specific level or intensity of gambling greatly increases the likelihood of negative consequences. Researchers have shown that gambling usually becomes problematic when it is defined as excessively prevalent or highly addictive. Shaffer, Hall, and Vander Bilt (1997) defined three levels of prevalent gamblers based on a scale from the casual gambler, who experiences few or no negative consequences from gambling, to the pathological gambler, who participates in "disordered" gambling that satisfies a "diagnostic criteria" (p. iii).

While prevalence studies categorize three tiers of gambling, addiction studies focus on how gamblers develop through the addiction cycle, building a foundation through the euphoria connected to winning, to chasing eventual and certain losses, and finally engaging in negative behaviors to compensate for past losses (Wexler & Wexler, 1992).

Prevalence studies. Large-scale prevalence studies examine the use of gambling through cross-sectional analyses of individual's self-reported gambling behavior. These studies rely on people reporting the frequency of gambling in their lifetime, past year, month, or week. Researchers categorize reported gambling behavior into three levels or tiers. Tier one is composed of individuals who report gambling as a positive recreational activity in a given time frame, usually in the past year. Tier one gamblers generally do not report negative life consequences associated with their gambling. Typically, between 70 and 90% of college students report gambling in the past year and are generally classified as tier one gamblers (Shaffer, Hall & Vander Bilt, 1997; Winters, 2002).

Tier two gambling represents "a pattern of gambling associated with a wide range of adverse reactions or consequences" (Shaffer, Hall, & Vander Bilt, 1997, p. iii). They are much more likely to experience negative consequences associated with gambling than tier one gamblers, including interpersonal conflict, the breakdown of relationships, and financial hardship (Shaffer, Hall, & Vander Bilt, 1997). About 4% of adults in the general population can be defined as tier two gamblers, while approximately 10% of traditionally aged college students aged 18 to 24 are tier two gamblers (Shaffer, Hall, & Vander Bilt, 1997). Individuals who participate in gambling at the third tier are pathological gamblers and often experience the highest prevalence of negative life consequences (Shaffer, Hall, & Vander Bilt, 1997). About 4.7% of college students can be defined as third tier gamblers, compared to about 1.6% of adults in the general population (Shaffer, Hall, & Vander Bilt, 1997).

Addiction studies. Addiction studies focus on the compulsive psychological need to gamble, usually to relive the ebullience of winning or to compensate for past losses. Addiction usually occurs in three stages. In stage one, the "winning" phase, individuals experience an initial euphoria in winning. For some individuals, winning releases endorphins that elicit "stimulating, tranquilizing, or pain-relieving responses, or all three simultaneously" (Wexler & Wexler, 1992).

Eventually, the individual experiences inevitable losses and enters the "losing" phase. In the losing phase, losses start to mount and individuals begin to "chase their losses." Losses beget more losing as the individual feels the only way to compensate is through more gambling. During this stage, the individual begins to experience withdrawal symptoms resulting from endorphin deficiencies (Wexler & Wexler, 1992).

The "losing" stage leads directly to addiction. At this point, "the thrill ends when the bet is placed" (Wexler & Wexler, 1992). Winning or losing is irrelevant as betters are preoccupied with planning their next "fix." In the addiction stage, individuals experience significant negative life consequences related to gambling. Negative and deceptive behaviors, like theft, lying, or missing work, that facilitate further gambling are hallmarks of this stage. In the third stage of addiction, the negative consequences associated with gambling fail to act as a deterrent.

Risk factors

Easy access to gambling by college students outside of the watch of peers, parents, and the collegiate community represents a unique "silent" element of gambling of students. Understanding student access to gaming, combined with a knowledge of the variables related to risk factors associated with gambling, provides information about students at particular risk of developing problems. While less is known about the correlates of college student gambling outside the realm of anecdotal evidence (Sperber, 2000), a significant amount of research has been done about variables that predict adolescent gambling. Risk factors associated with adolescent gambling include:

1. Being a male between the ages of 16 and 25 (Griffiths & Wood, 2000; Gupta & Derevensky, 1998; Jacobs, 1996).
2. Early age of onset of gambling (Griffiths & Wood, 2000; Gupta & Derevensky, 2000; Jacobs, 1996).
3. Large wins earlier in the gambling career (Griffiths & Wood, 2000).
4. Parental gambling levels, either through impression, lack of knowledge of child's behavior, or encouragement (Browne & Brown, 1994; Griffiths & Wood, 2000; Gupta & Derevensky, 1998; Jacobs, 1996; Ladouceur, Jacques, Ferland, & Giroux, 1998).
5. Feelings of depression before gambling (Griffiths & Wood, 2000).
6. Tendency to consistently chase losses (Griffiths & Wood, 2000).
7. Poor grades (Griffiths & Wood, 2000).
8. Other addictive behaviors (Griffiths & Wood, 2000; Gupta & Derevensky, 2000; Langewisch & Frisch, 1998).
9. Low-income background (Griffiths & Wood, 2000; NORC, 1999).
10. A history of delinquency (Griffiths & Wood, 2000; Gupta & Derevensky, 2000).
11. Ethnicity, with at-risk gambling among the general population disproportionately higher among Native-Americans and African-Americans than other ethnic groups (Hill, 2003; Jacobs, 1996; NORC, 1999). Among college students, however, research suggests African-Americans gamble less than other ethnic groups (Lesieur, 1995).
12. Education, with college graduates being more likely to be at-risk gamblers (NORC, 1999).
13. External locus of control (Browne & Brown, 1994; Gupta & Derevensky, 1998).
14. Residence, with levels of gambling increasing in geographic areas where gambling is promoted by sanctioned entities (Jacobs, 1996).
15. Low self-esteem (Gupta & Derevensky, 2000).
16. Peer group of gamblers (Browne & Brown, 1994).
17. Being a student athlete (Cross, et al., 1998; Henry, 2003; Naughton, 1998; Layden, 1995b; Suggs, 2000; Survey finds that many college athletes gamble on games, 1996).

Reasons for gambling

Adolescents and college students cite a variety of reasons for gambling. They may include seeking excitement or to "feel a rush" (Jacobs, 1996; Platz & Millar, 2001); because they are "good at it" (Adebayo, 1998; Jacobs, 1996); to win or make money (Adebayo, 1998; The motivated scholar, 2002); to distract themselves from everyday problems (Adebayo, 1998; Jacobs, 1996; Platz & Millar, 2001); to take risks (The motivated scholar, 2002; Platz & Millar, 2001); they are bored or alone (Jacobs, 1996; The motivated scholar, 2002); are sad or depressed (Jacobs, 1996); to feel in control (Jacobs, 1996); to make more or be with friends (Jacobs, 1996; The motivated scholar, 2002; Platz & Millar, 2001); the thrill of competition (The motivated scholar, 2002; Platz & Millar, 2001); out of curiosity (Adebayo, 1998); to increase their awareness about sporting events (Oster & Knapp, 1998); or for enjoyment or fun (Adebayo, 1998; The motivated scholar, 2002). Platz and Millar (2001) note that recreational gamblers have similar motives for gambling as for other recreational activities, while pathological gamblers often have very different motives for gambling and participating in other recreational activities.

Types of gambling & gambling behaviors among college students

Because access to and availability of gambling venues is associated with the prevalence of gambling, examining traditional and contemporary gambling formats illuminates the understanding of what leads to college student gambling. As Kurlantzick (2002) points out, "Only 15 years ago, Americans who wanted to roll the dice legally basically had two choices: Nevada or Atlantic City. Most people had never visited a casino. No more" (p. 34). Certainly, a spat of legal and regulatory government actions, along with technological advances in telecommunications, has led to a boom in the gambling industry and the prevalence of gambling.

The first regulatory change came in 1987, when the Supreme Court ruled that states could not apply regulatory statutes to Native American reservations, leading to a sharp increase in the number of casinos on reservations (Kurlantzick, 2002). In the 1990s, many states added funds from lotteries and highly-taxed casinos as part of their regular budget (Copeland, 2003; Dyer, 2001; Prah, 2003; Schmidt, 1996). According to a gambling industry consultant, "There's a new wave of expansion. Gaming provides a strong revenue source, and it's almost a voluntary tax" (as quoted in Copeland, 2003).

Traditional gambling. While research shows college students have access to traditional gambling sites and gambling activities like video poker, slot machines, casinos and lotteries, college students are in a unique position relative to the general adult and adolescent population, specifically in regard to less regulated, informal, and sometimes illegal forms of gambling. With unorthodox schedules and a readily available supply of participants available in group living situations, informal card games are highly prevalent among adolescents and traditional college age students (Ackerman & Piper, 1996; Jacobs, 2000; Lesieur, 1995).

Gambling on the internet. The internet has provided unprecedented access to on-line gambling. Currently, there are over 2,000 gambling websites that take in over \$4 billion annually (Aire, 2003). Aire (2000) describes how individuals can participate in on-line gambling:

To open accounts, gamblers provide their credit card numbers or transfer money from a bank. On-site operators receive the bets and use computers to run complex programs that simulate gambling games. When the game is done, the on-site operator tells gamblers whether they have won or lost.

There are several reasons why on-line gambling, particularly on college sports, is popular among college students. No tangible, cash money is involved, lending an air of detachment to actual losses or making it difficult for gamblers to keep track of their losses. In fact, about 95% of on-line gambling is done with credit cards (Aire, 2003). On-line gambling is accessible, particularly on college campuses where computers with high-speed internet access are prevalent and available 24 hours a day. The videogame nature of on-line gaming venues is alluring in that videogames are often associated with a non-financial type of activity and that gamblers often find themselves "play(ing) with money rather than for it" (Griffiths & Wood, 2000, p. 209). Other researchers have suggested that the "structural characteristics of software itself" may promote addictive gambling (Griffiths, 1996).

Collegiate athletics and gambling. Being physically and psychologically tied to a campus, college students are more interested in the outcomes of sporting events and, when combined with easy access alcohol and high speed internet, many postsecondary institutions find their students engaging in gambling at much higher rates than the general population (Henry, 2003; Sperber, 2000). According to the University of Kansas Director of Counseling Services, gambling allows students to feel intimately involved in a game (Aire, 2000). Another gambling recovery counselor stated, "The more someone knows about a given sport, the more they may believe their decision-making gives them a significant advantage. There develops a level of emotional invincibility in the addiction" (as quoted in Henry, 2003). With easy access to gambling and a need to feel part of the larger organization, pathological gambling associated with betting on sporting events has risen significantly in the past ten years (Sperber, 2000).

Coincident with increases in on-line gambling have been rises in betting on college sports, particularly on-line. As Sperber (2000) notes, "When student betters view games on TV, frequently they have one eye on the 'crawl' on the bottom of the ESPN2 screen (and) in addition, ESPN.com" (p. 208). With the exception of the Super Bowl, the NCAA men's basketball tournament is the most gambled upon sporting event (Chan, 2002).

With gambling closely tied to collegiate athletics, it should come as no surprise that college student athletes, coaches, athletic administrators, and even referees report much higher rates of gambling and the negative behaviors associated with it (Cross, et al., 1998; Naughton, 1998; Layden, 1995b; NCAA suspends 5 Maryland players who bet on college games, 1995; Suggs, 2000b; Survey finds that many college athletes gamble on games, 1996). A study by the University of Michigan, for instance, showed that 1 in 20 college student athletes bet on their own team (Wexler & Isenberg, 2002). As a result, the NCAA has established commissions to study collegiate gambling and even lobbied Congress to pass a ban on gambling on college and amateur sports (Bill to ban gambling on college sports advances in Congress, 2000; Blum, 1994; Street, 2001; Suggs, 1999b; Wexler & Isenberg, 2002). Many, however, have been critical, accusing the NCAA of going soft on gambling activities associated with collegiate athletics (Lipsyte, 2002; Suggs, 2000a; Suggs, 2002).

Alcohol and gambling. As Giacopassi, Stitt, and Vandiver (1998) point out, "research has found significant overlap in the problem drinker and pathological gambler populations" (p. 135). A university psychologist at Florida State University noted that 90% of compulsive gamblers also suffer from alcohol and/or drug addiction (Henry, 2003). In fact, even moderate alcohol use can increase the likelihood of gambling losses (Giacopassi, Stitt, and Vandiver, 1998). According to Lesieur, Blume, and Zoppa (1986), combining alcohol use with gambling lowers an individual's awareness and reinforces the addictive nature of an individual's personality.

Addressing Gambling Among College Students

Gambling is the nation's foremost "silent addiction." As one addiction counselor pointed out, pathological gamblers don't "have track marks on their arms, their speech isn't slurred and they are not staggering down the street. But on the inside, the emotional churn going on is equally as great (as a substance abuser)" (as quoted in Henry, 2003). The results can be devastating, as pathological gamblers find themselves unable to keep up with rent or tuition, maxing out their credit cards or overdrawing bank accounts, lying, turning to theft, dealing drugs or prostitution, getting arrested, or in some cases in even suicide (Wexler & Isenberg, 2002). As the executive director of the National Council on Problem Gambling stated, "if it's out of sight, it's out of mind. But kids do get into serious trouble - and turning a blind eye to it certainly doesn't help the people that (administrators) should be protecting" (as quoted in Gose, 2000, p. A49).

Pathological gambling by college students does not exist in a vacuum. The negative behaviors associated with compulsive gambling impact everyone at the community and institutional levels. Unfortunately, many administrators and student affairs staff are unaware that gambling is a significant problem (Henry, 2003). Higher education administrators, staff, and other students need to collaborate to understand and identify the risks, motivations, reasons and behaviors associated with pathological gambling and how college students gain access to and participate in gaming. Faculty and staff members need to work in conjunction to develop administrative policies on gambling that clearly outline the risks and consequences (Wexler & Isenberg, 2002). Colleges and universities should also cooperate with external entities that have experience in dealing with pathological gambling (Wexler & Isenberg, 2002). Finally, counseling should not focus on money management or fiscal responsibility tools; rather, "remedies must deal with the underlying issue" (Wexler & Isenberg, 2002, p. B19).

Information is a strong tool in preventing and addressing pathological gambling among college students. Institutions should coordinate efforts in disseminating information on compulsive gambling, starting with orientation, through student life programs, and communicating the psychological reasons that individuals gamble along with warning signs of compulsive gambling (Wexler & Isenberg, 2002). Included in disseminated information should be facts about the odds of winning and the negative consequences highly correlated with pathological gambling (Adebayo, 1998). It should go without saying that college students should have access and information about where to get help when gambling becomes destructive.

As legalized gambling becomes the social norm, adolescents obtain addictive gambling habits at an earlier age, and more students enter college already highly addicted or "tier three" gamblers, institutions of higher education need to be prepared. As Ackerman and Piper (1996) note, "an aware student affairs staff will (need to) meet the problem as it develops by beginning to put in place the research, programming, intervention models, and policies that facilitate an adequate response to a problem that is already a matter of concern for many students" (p. 143).

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Gambling and College Students Annotated Bibliography

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Gambling and College Students Bibliography by Topical Area

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