

## *College Problem Gambling Literature Review*

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Young adult populations between the ages of 18-24 have become especially vulnerable to problem gambling in the United States and Canada with higher rates than the adult population (Lesieur, et. al, 1991; Shaffer, et. al, 1997; The Annenberg Public Policy Center, 2005; Welte, Barnes, Wieczorek, Tidwell, and Parker, 2001). This rise in problem gambling is especially evident among college students as counseling centers report cases of students facing insurmountable debts and college athletes facing expulsion for their illicit activities (Lidz and Stone, 1995; NCAA, 2004; Oster and Knapp, 1998). These types of data may be beneficial to the design of population specific intervention models and policies that aim to reduce the incidence of pathological gambling among college students.

This literature review was developed to increase the understanding of the causal influences of pathological gambling among college populations. Problem gambling is the precursor to pathological gambling (Sumitra and Miller, 2005). A clinical definition of problem gambling is not found in the *Diagnostic and Statistical Manual of Mental Disorders- Version IV Text Revised (DSM-IV-TR)* (American Psychiatric Association, 2000) but it represents a stage on the downward trajectory towards pathological gambling. A problem gambler experiences complications (e.g., higher bets, greater risks) (2005) from their gaming behavior but the person has not met the full criteria for pathological gambling under the DSM-IV-TR. It should also be noted that the DSM-IV-TR diagnosis for pathological gambling has been found reliable for other racial and cultural groups even with some variations in behavior detected (Cunningham-Williams, Ostman, Spitznagel, and Books, 2007).

The literature review findings are organized under six major themes found in selected research studies. These themes include: a) prevalence, b) symptomology, c) gender and at risk groups, e) influence f) different types of gambling, and g) prevention and policy. A discussion of these findings is found below.

### **Prevalence**

In the United States, the incidence of problem gambling among college students has been approximated at 7.8% using data from meta analyses performed by Blinn-Pike, Worth, and Jonkman, 2006, which is higher than prevalence for the adult population (Welte, 2001). The increased rates within the college populations over the past two decades has been attributed to changes from the broad access provided by gambling legalizations ((Bailey, Burroughs, Dabit, Hambrick & Theriot, 1997; Browne & Brown, 2001). These rates could be higher if the college

or university is closer to a casino (Bailey, Burroughs, Dabit, Hambrick & Theriot, 1997; Stitt, Giaocapassi, & Vandiver, 2000), similarly seen for adults who rates double with this close proximity (Sumitra & Miller, 2005). Incidence of pathological gambling is higher among adult communities of color with rates two times higher than whites (Addiction Medicine, March 2004; Martin, 2007) however, more population specific data are needed for African Americans and other racial and ethnic minority college students when encountering problem gambling.

Student athletes are a subset of this population who have been studied more intensely due to consequences related to sport regulations. Oster and Knapp (1998) estimated that student athletes were two times as likely to be problem gamblers than non-student gamblers. However, more recent studies indicate that college athletes and non-college athletes are at equal risk for problem and pathological gambling (Kerber, 2005).

Other figures indicate that one in twenty college students is experiencing a problem gambling (ABC News, 2006). The higher prevalence rates among the college and university populations suggest an increased need for tools and resources to reduce this incidence. Increased awareness of problem gambling prevalence among college student can serve as the first step in alerting staff and students alike on the importance of this issue (Stinchfield, Hanson, & Olson, 2006).

### **Symptomology**

Disordered gambling (i.e., problem or pathological) is not easily detected since its symptoms are not immediately visible as the physical symptoms found for some types of substance abuse (e.g., nodding, red eyes). Sufferers of this addiction may face bleak consequences before early detection. Early signs include increases in gambling frequency, amount of money spent, and duration of gambling activity, and using the activities to escape. Symptomology specific to college students include lowered academic performance and isolating behavior. College students exhibiting problem or pathological gambling also displayed traits of other high risk behaviors, i.e., risky sexual behavior, binge on alcohol, and use tobacco and marijuana (LaBrie, Shaffer, LaPlante, & Wechlet, 2003). Goodie's (2005) study at the University of Georgia found that students with problem and pathological gambling behavior were more overconfident and less guided by maintaining control.

The most advanced stage occurs when the gambler cannot stop their gambling. Poker terminology for losing this control even after loss of financial resources is referred to as "tilt"

(Schwartz, 2006). This experience is characterized by continued spending even when recognizing that they are facing uninterrupted loss. This loss of control is driven by the intent to win back losses. The student turned bank robber, Gregg Hogan, was reported to have undergone “tilt” from his gambling activities before engaging in the criminal activity (Schwartz, M., 2006, June 11).

Training college counseling personnel in recognizing the symptomology of problem gambling would help identify those clients who may be presenting for another issue. Assessing the symptomology is dependent upon accurate assessment measures. The most commonly used pathological gambling assessment instrument is the South Oaks Gambling Screen (SOGS) (Leseiur & Blume, 1987; Stinchfield, Hanson, & Olson, 2006). The Gambling Behavior Interview (GBI) targets problem gambling rather than pathological gambling and includes items from the SOGS and the DSM-IV (Stinchfield, Hanson, & Olson, 2006). Knowledge and access to these and similar screening instruments can assist university counseling centers with helping students struggling with problem gambling.

### **At Risk Populations**

Findings from literature indicate that for college students, there are certain populations that may be at higher risk for problem gambling. These populations include students who would be categorized as male, athletic, member of Greek fraternal organization, or a member of a community color.

Gender differences have been reported in several studies. Males are described as engaging in gambling more frequently than females (Walker, Cournega, Deng, 2007), a finding also found among college males (Blinn-Pike, Worth, Jonkman, 2006; LaBrie, Shaffer, LaPlante, & Weschler, 2003). This stronger drive to gamble could be related to the adventurous characteristic of stereotypical male behavior or the social drive to compare oneself with other influential males (Walker, Cournega, & Deng, 2007). There are differences with preferences for type of gambling. In 2004 study at Connecticut State University (Engwall, Hunter, & Steinberg, 2004), gender differences found in gambling behavior. College males were more likely to engage in playing cards, betting on sports, and games that involved skills (2004). College females were more likely to be involved with gambling at casinos, or playing slot machines or bingo (2004). The lottery was the most popular gaming activity for both groups (2004). The Annenberg Public Policy Center collected data in a 2005 study showing that 15% of college

males participated in weekly gambling activities as compared to only 1.6% for college women. According to a 2004 National Collegiate Athletic Association (NCAA) study, college male athletes were more likely to report gambling, wager on sporting event, bet on a college sporting event, and exhibit problem gambling behavior than female athletes. These frequencies may change when comparing only the populations of problem gamblers.

College athletes are more likely to participate in gambling activities than non-athletes. College athletes are often involved in gambling surrounding sports (National Collegiate Athletic Association (NCAA), 2004). As their addiction worsen, they can become vulnerable to illegal practices of providing gamblers inside information on a game or deliberately shaving points to ensure a certain score in a game. College athletes who engage in these illegal practices can lose scholarships, endorsements, and their future career in sports.

Members of Greek fraternal organizations may be at higher risk than the general college populations, as well. These fraternal organizations are well known for heavy alcohol consumption, a comorbid activity to gambling. Members and non members of Greek organizations were compared in 2005 study that found that the differences were not significant (Rockey, Jr., Rockey, Beason, Gilbert, & Howington).

Several studies have shown that are higher frequencies of gambling behavior among communities of color (Stinchfield, 2000; Stinchfield, Hanson, & Olson, 2006; Welte, Barnes, Wieczorek, Tidwell, & Parker, 2004). Communities of color also experience higher rates of problem and pathological gambling behavior (Stinchfield, Hanson, & Olson, 2006; Volberg & Boles, 1995; Welte, Barnes, Wieczorek, Tidwell, & Parker, 2004). Little data are available on the gambling practices of colleges students from these communities.

Membership in these high risk population does not automatically predispose a group member to problem gambling (Stinchfield, Hanson, & Olson, 2006). It does highlight sectors of the university community that could benefit from increased awareness of problem gambling and resources to prevent or treat this condition. Forming partnership with representatives of these populations could lead to more impactful interventions.

## **Influences**

The perception held toward gambling naturally influences the likelihood of participating in gambling activities. The appreciation for gambling as an entertaining activity is not the only influence. There are several factors that could influence disordered gambling behavior such as problem or pathological gambling. These factors include personality traits, comorbid psychological disorders, developmental factors, environment, and early exposures.

### *Personality Traits*

People with possessive impulsive tendencies or distressed affects (e.g., depression) are more likely to be associated with problem gambling. Elevated levels of norepinephrine in pathological gamblers were found in Miller's, Gold, & Smith 1997 study. Pathological gamblers and people with attention-deficit disorder (ADD) were found to have a strong link in characteristics (Steffgen, 1995). Later, a study led by Eisen and Lin (1998) detected a possible familial vulnerability for pathological gambling based on their work with monozygotic and dizygotic twin pairs.

### *Comorbidity*

Problem gambling is highly comorbid with several psychological disorders such as mood disorders (60%), anxiety disorders (40%), substance abuse disorders (63%), and antisocial personality disorder (33%) (Black & Moyer, 1999). The depression and suicide rate among pathological gamblers is exceedingly high (McCormick, Armstrong, Blaszczynski & Allcock, 1984 Thompson, Gazel, & Rickman, 1999). Substance abuse has been identified as one of the more salient predictors of problem gambling (Stinchfield, Hanson, & Olson, 2006)

### *Developmental Factors*

Young adults ages 18-24 are still undergoing self exploration. Jeffrey Arnett (2000, 2004) refers to this development period from late adolescence to the mid twenties as “emerging adulthood.” This new developmental period is based on the Western societal shift to allow for the delay of adult decision for marriage and children to occur after the mid-twenties. The emerging adult developmental period is also associated with other behaviors co-morbid to the problem gambling personality, e.g., higher rates of risky sexual behavior and alcohol, tobacco, and other drugs (Arnett, 2005; Chassin, Pitts, & Prost, 2002; Orlando, Tucker, Ellickson, &

Klein, 2004; Rohrback, Sussman, Dent, & Sun, 2005; Tucker, Ellickson, Orlando, Martino, & Klein, 2005). Problem gambling behavior is expected to reduce as college students move through their emerging adult period into their more permanent adult status (Arnett, 2000; 2005). Furthermore, being adventurous or experimental does not automatically predispose college students to problem gambling since these internal drives are example of a healthy interest in life (Clarke, 2004).

### *Environmental factors*

College life may induce students to consider participating in new behaviors with the removal of some parental control; leading to experimentation with new freedom, constant access to the internet, increased access to personal credit cards, and employment in gambling related enterprises such as <sup>1</sup>tout services (Saum, 1999; Shaffer, 2005, Koch, n.d.). Other causal influences are the direct marketing of gambling activities towards college students. Popular sites visited by students market gambling advertising (Koch, n.d.). College poker tournaments gained entry into the college audience by using partnerships and college funding to access the students (CarmenMediaGroup, 2007; Koch, n.d.). Students who played in the weekly tournaments were eligible for prize money and could become contestants in the annual tournament that draws up to 40,000 students across the country (Koch, n.d.). This marketing approach addressed college students interests in gaining more money. Neighbors, Lostutter, Cronce, & Larimer (2002) found in their study that for 185 northeastern students, money was the most common reason why college study centering on reasons why students gambled. These students competed for scholarship money. There was no cost for entering in the College Poker Tournament (Koch, n.d.). However, practicing for the tournament may have involved participation in games that do require students to wager. College poker clubs are common on many campus. These campus poker clubs also sponsor games and tournaments for their student populations and national audiences (Wehner, 2007). *College Poker Life* is a website that regularly advertises poker opportunities at different colleges and universities (College Poker Life, 2007).

Colleges and universities located near gambling facilities had higher rates of student problem gambling behavior for their students (Bailey, Burroughs, Dabit, Hambrick & Theriot, 1997; Stitt, Giaocapassi, & Vandiver, 2000). Studies conducted at two universities based near gambling

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<sup>1</sup> Individuals who make their living picking the winners of sporting events and selling those picks to gamblers.

institutions, students reported that underage students were able to enter the facility and drink for free without difficulty (Stitt, Giaocapassi, & Vandiver, 2000). Alcohol was a major draw for many of these underaged college students who visited gaming establishments.

#### *Early exposure*

The younger the introduction of gambling, the more greater the risk of developing problem gambling (Derevensky, Gupta, Winters, 2003; Australian Productivity Commission, 1999). College problem gamblers often reported that members of their social network (friends and family) influenced their gambling behavior. Parent's gambling behaviors were strongly associated with college students' gambling behavior (Browne & Brown, 2001).

Data on strong influences of pathological gambling is helpful for college administrators and therapeutic staff. Administrators that are aware of environmental conditions that exist on their campuses that may contribute to problem gambling can develop policies to protect students. Therapeutic staff who assist students with certain psychological disorders or who have revealed a history of gambling prior to college could probe for evidence of problem gambling.

#### **Different types of gambling**

Preferences for types of gambling may be dependent on geographic location, cultural norms, and gender. The lottery and its spin off products (scratch tickets) are available to all adult populations and are widely accepted form of entertainment in the United States (Felsher, Deverensky, & Gupta, 2004). Lottery games are one of the most accessible gambling products available especially among youth (Felsher, Deverensky, & Gupta, 2004). Surveys that asked for the motivation behind lottery play were overwhelming money driven (Consumer Federation of America and Prime America, 1999; Los Angeles Times, 1986). In the Consumer survey (1999) respondents were asked the best methods to "obtain half a million dollars in their lifetime. Those respondents earning close to the poverty line (\$15,000-25,000) had higher percentages of choosing the lottery as investment than using saving options.

On college campuses, another popular gambling activity is playing cards (Schwartz, 2006; The Annenberg Public Policy Center, 2005). Card games are relatively easy to arrange and can be initiated in a variety of settings. Card games are valued more than just a leisure activity as poker tournaments but also used as fundraising activities for different campus issues (Koch). *Texas Hold Em* is one of the most popular college games that many link to its concurrent interest on television cable (Koch, n.d.). Many students report that they are drawn to

card games like pokers due to the mental challenge (n.d.). College students located near casinos are more likely to frequent this venue than those who do not live near a casino.

Researching the most popular type of gambling behavior is a good investment for colleges and universities. These data could help tailor intervention messages and increase understanding of the specific vulnerabilities facing their students.

### **Prevention and Policy**

Unrealistic optimism is a term used by Weinstein (1980) to describe the illogical thought patterns that could contribute to youth engagement in risky behavior even with access to information on its harmfulness. A college student could be provided an intervention with facts but unrealistic optimism could allow a person to place greater emphasis on the potential positive effects and minimize any related consequences. This behavior is not specific to college students but “immortality” like choices is more readily seen among younger age groups. Prevention has previously concentrated on disseminated facts on the dangers of the loss of control of a particular behavior or abuse of a substance. Although raising awareness on important health topics maintains salience of a particular issue, prevention messages that solely focus on the problem does not appear realistic or may appear biased (Messerlian & Derevensky, 2004). Data dissemination does not reduce risky behavior for those who are aware and still choose not to heed warnings. Gambling is so well integrated into campus life that its wide acceptance may prevent students from obtaining help.

There is also the disassociation from the behavior. The inconsistency between self image and actual behavior has been documented by several researchers (Volberg, 1996; Ladoucer, 1996; Johnson, McCaul, and Klein, 2002; Lange, 2001). Several studies of individual association with a behavior indicates that one can participate in a behavior but not consider themselves as an actual participant or at risk for the consequences for such behavior. Johnson, McCaul, and Klein (2002) found that college students that increased their risky sexual behavior while maintaining belief that their risk was comparable to someone who was not involved in sexual behavior. In Lange 2001 study, self identified gamblers reported participating in gambling behavior triple the rate of those self identified non gamblers. The term “gambling” has been disassociated with lottery tickets, bingo, scratch tickets with individuals admitting that they had indeed engaged in these activities but did not consider themselves gambling or a gambler (Lange, 2001).

Identification with a particular gambling behavior was more closely related to frequency or if the activity was less associated with a leisure pastime, e.g., cockfighting (Lange, 2001).

Placing an emphasis on preventing the onset of problem gambling may be more feasible than attempting to eliminating a persons participation in a legal pursuit. Gambling prevention activities has been aggressively pursued by the NCAA as they work with colleges and universities to ensure athletes do not become problem gamblers which could jeopardize their academic standing or even compromise the ethics of the league.

As gambling is legal for Americans 21 and older, the current prevention focus is on preventing underage gambling for youth and preventing problem gambling through harm reduction for college students. There are many online resources that provide information for gambling interventions for youth and adult populations (See Appendix A.). One promising intervention that was designed for college students is The Brief Alcohol Screening and Intervention for College Students (BASIC) (Dimeff, Baer, Kivlahan, & Marlatt, 1999). The BASIC was modified by Dimeff et. al (1999) to address problem gambling for college students. This tool integrates motivational interviewing to assist participant in connecting with their internal motivation to avoid harm (Takushi, et. al, 2004). The BASIC uses a conversational method of delivery to assess risk and to provide appropriate feedback based on response (Dimeff, et al, 1999). This treatment is administered once as a brief intervention for problem gambling. This tool may be appealing for campus based counseling centers for students presenting with early problem gambling. This non-threatening session would provide student data on their behavior compared to healthy norms. More studies are needed on intervention as the 2004 study did not find significant differences between the control and sample group.

Lack of gambling policies on college and universities' campuses may contribute to higher incidence of problem gambling in college populations. The absence of policies could also explain the low awareness of the potential for problem gambling among college students. Shaffer, Forman, Scanlan, and Smith (2005) gathered data for a national college alcohol and gambling policy study. Alcohol policies were established in all of the schools they contacted (2005). Gambling policies were only found in 22% of the schools (2005). The absence of policies for illegal and problem gambling suggests that college administrators need more information on this topic. It is anticipated that the receipt of accurate data could improve awareness and influence the development of gambling policies at colleges and universities.

There are few policies or interventions created specifically for college students. With so many factors that could leave students vulnerable to problem gambling, colleges should investigate the most appropriate policies for their environment, students, and at risk populations (Stinchfield, Hanson, & Olson, 2006).

### **Conclusion**

Increasing the understanding of problem gambling on colleges and universities could assist students with preventing behavioral patterns that could lead to this disordered behavior. Data on prevalence and symptomology can be summarized and presented in flyers, posters, listserv messages, and orientation inserts to ensure that staff and student body are informed (Stinchfield, Hanson, & Olson, 2006). Prevalence and symptomology data are also critical in appropriate assessment, diagnosis and treatment options for students who have symptoms of problem gambling (2006). College administrators and counseling centers staff can develop and evaluate protective structures such interventions or policies for their students by identifying which student groups are most at risk or the predominant influences on problem gambling (Shaffer, Forman, Scanlan, & Smith, 2000; Stinchfield, Hanson, & Olson, 2006). Although more data are needed, the use of the findings discussed in this report is a strong response to reducing the incidence of problem gambling among college students.

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## Appendix A: College Gambling Resources

1. *BetCheck*: [www.responsiblegambling.org/betcheck/](http://www.responsiblegambling.org/betcheck/)
  - a. Online tool that allows gamblers to assess their risk by answering their questions
2. *Self Help Handbook for Problem Gambling*:  
[www.problemgamblingvictoria.ca/handbook/handbook\\_toc.shtm](http://www.problemgamblingvictoria.ca/handbook/handbook_toc.shtm)
  - a. This book are for adult gamblers who would like to address their problem gambling individually.
3. *Gambling Decisions*: [gamingresearch.blogspot.com/2006/12/gambling-decisions-program-news.html](http://gamingresearch.blogspot.com/2006/12/gambling-decisions-program-news.html)
  - a. Six week program to help individuals abstain or control gambling
4. *YMCA Youth Gambling Project*: [www.peterboroughymca.org/programs/ygp.htm](http://www.peterboroughymca.org/programs/ygp.htm)
  - a. Gambling program for youth 8-24
5. *Association of Problem Gambling Services Administrators*:  
[http://www.camh.net/egambling/pdf/jgi\\_15\\_christensen.pdf](http://www.camh.net/egambling/pdf/jgi_15_christensen.pdf).
  - a. A group that initiates collaboration among states for problem gambling services
6. *National Council on Problem Gambling*: [www.ncpgambling.org](http://www.ncpgambling.org)
  - a. National organization that provides information on problem and pathological gambling including clinician gambling certification/
7. *Responsible Gaming Council* - <http://www.responsiblegambling.org/en/index.cfm>
  - a. Website of a non profit organization that address problem gambling preventions
8. *Gambler's Anonymous*: [www.gamblersanonymous.org/](http://www.gamblersanonymous.org/) -
  - a. Organizational website that provides lists of meetings and resources for those who are seeking assistance for pathological gambling.
9. *Don't Bet on It*
  - a. Interactive resource for college sports wagering
10. *Yellow Flag*: <http://www.yellowflag.ca/>
  - a. Interactive website to determine if adult gambling is engaged in disordered gambling. This resource can be used as a student resource.

11. *Campus Blues*: [www.campusblues.com/gambling.asp](http://www.campusblues.com/gambling.asp)
  - a. This site provides information on gambling on American campuses