

# Pilot Study of Gambling Attitudes and Behaviors Among Iowa College Students

**Prepared for**

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# Executive Summary

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## **Background & Methods**

Combining both qualitative and quantitative dimensions, this pilot study was designed as a preliminary investigation of gambling behaviors and attitudes among Iowa college students, particularly as they relate to the treatment of problem gambling. As the first phase of a larger proposed study of college gambling behavior among Iowa college students, this project evaluated an overall research design, the quantitative survey instrument and qualitative focus group questions, and assessed potential response rates. The report includes a review of the extant literature on gambling among college students, and summarizes the findings from a small pilot survey of one comprehensive university as well as providing key themes from two focus groups that were conducted at the comprehensive university. The original design included data collection at both a comprehensive university and a community college. However, because response rates varied dramatically between the two institutional populations, the decision was made to exclude the community college data from the report.

## **Literature Review**

The review of the scientific literature indicates that gambling prevalence rates among college students vary by the specific type of gambling activity and gambling is more common among college males than females. Male gender is the most commonly reported risk factor for gambling participation among college students. College students are at a higher risk for financial problems from gambling losses than older adults due to other financial obligations from college expenses and tuition, as well as potential debt from the increased credit card availability to young adults.

Many gamblers do not seek formal treatment; research suggests that in most cases gamblers self-treat in an attempt to undergo natural recovery for problem gambling. Less research has been conducted on treatment-seeking and treatment methods among college students than among adults.

## **Key Findings – Quantitative Survey**

Among all UNI respondents, almost seven in ten (68%) had gambled in the past year and 10% met at least one DSM-IV criterion for potential problem or pathological gambling.

Among students who reported gambling in the past year, 14% said they gambled more than monthly and the majority of students who reported gambling in the past year said the largest amount of money they had ever gambled with, lost, or won in a single day was \$50 or less.

Most students who reported gambling said they did so because it is a source of entertainment or fun.

Awareness of addiction and gambling treatment services and resources was quite limited and a large proportion of respondents were not sure about access to and perceptions of addiction and gambling treatment.

Males gambled at a much higher rate than females. Gender differences were apparent on a number of survey items related to gambling knowledge, attitudes, and behaviors.

### **Key Findings - Focus Groups**

Consistent with the quantitative findings, the qualitative focus group responses indicated that males had greater knowledge than females about every gambling issue, as evidenced by more comprehensive answers to questions about gambling and gambling treatment among college students.

Participants in both focus groups quickly identified differences between males and females in gambling participation and the gambling activities.

Problem gambling was perceived by all participants as different from other addictions such as substance abuse, in part because gambling was not perceived to impact physical health and wellness.

Participants indicated that stigma may be the strongest barrier to treatment for problem gambling. Among the focus group participants, little was known about treatment or access to treatment for gambling problems.

### **Conclusions**

Overall, the findings of this pilot study were consistent with those of previous research related to gambling and gambling treatment among college students but this information is limited and presents challenges with regard to best approaches to collecting information and concerns about variability across subpopulations. Findings emphasized the variety of gambling behaviors in which college students engage and identified significant gender differences. The findings also underscored the need for students' increased awareness of and access to treatment on and near campuses. Testing study design approaches and interview content using both quantitative and qualitative methods was valuable. The focus groups provided an important complement to the quantitative survey methods resulting in additional perspectives and depth not easily obtained through quantitative approaches alone. Quantitative and qualitative methodologies for future studies should include multiple student strata from a variety of college settings in the state to provide more generalizable results that can be used to inform decision-making related to gambling treatment for college students.

# Introduction

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The focus of this pilot project is gambling behaviors and attitudes among college students, particularly as they relate to the treatment of problem gambling. The project was conducted by the Center for Social and Behavioral Research (CSBR) at the University of Northern Iowa (UNI) and funded by the Office of Gambling Prevention and Treatment at the Iowa Department of Public Health (IDPH). The project objectives were to:

- Perform a literature review of research and studies relevant to the topic.
- Develop and conduct a pilot study of students at two colleges in Iowa to examine the gambling behaviors and attitudes of the target population.
  - Administer an online survey of college students to assess knowledge, attitudes, and behaviors related to gambling and gambling treatment.
  - Conduct focus groups with students to provide more in-depth assessment of knowledge, attitudes, and behaviors related to gambling and gambling treatment.

The purpose of this report is to present a review of the extant literature on gambling among college students, and to summarize findings from the online pilot survey and key themes from the focus groups. Methodologies, results, and discussion are provided for each component.

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# A. Literature Review

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## Introduction

Gambling has emerged as a significant problem among college students. The prevalence of problem gambling among college students may be nearly three times higher than among adults (Shaffer & Korn, 2002). It is estimated that 2.6 million college students may be classified as problem gamblers, often experiencing negative consequences of their gambling habit (Lostutter, Lewis, Crouce, Neighbors, & Larimer, 2012).

Gambling is a common behavior among college students; most frequently gambling at casinos or online. There are multiple risk factors and comorbidities for college students that increase their likelihood of problem gambling such as: male gender; tobacco, drug and alcohol use; certain behavioral disorders; lower socioeconomic status; membership in the college Greek system; and participation in athletics (Atkinson, Sharp, Schmitz, & Yaroslavsky, 2012; Barnes, Welte, Hoffman, & Tidwell, 2010; Goudriaan, Slutske, Krull, & Sher, 2009; Huang, Jacobs, & Derevensky, 2011; Petry & Weinstock, 2007; Quilty, Watson, Robinson, Toneatto, & Bagby, 2011; Rockey, Beason, & Gilbert, 2002; Shead, Derevensky, Fong, & Gupta, 2012; Slutske, Moffitt, Poulton, & Caspi, 2012; Winters, Bengston, Dorr, & Stinchfield, 1998).

Higher prevalence of problem gambling among college students may be explained, in part, by their psychological developmental stage. A theory proposed by Jeffery Arnett (2000) places college students in “emerging adulthood,” a transitory period in which they experience independence for the first time, yet having fewer responsibilities than adults. Emerging adulthood is associated with sensation-seeking and risk-taking behavior, which may contribute to and partially explain increased gambling participation among college students (Ravert et al., 2009).

College students are a unique sub-population due to a variety of factors including their developmental stage, living situations, participation in social networks, and new financial responsibilities. Treatment of problem gambling likely would benefit from being tailored to the unique characteristics of college students. However, little is known about gambling treatment among college students because few studies have specifically addressed treatment strategies for college students. This review of the literature will examine gambling and gambling treatment among the college student population. Specifically, prevalence of gambling and problem gambling, characteristics of gambling, reasons for gambling, methods for measuring gambling, and gambling treatment will be addressed as related specifically to college students.

## Prevalence of Gambling and Problem Gambling

Gambling has been generally defined as betting or wagering money or something of value on an event that has an uncertain outcome with the possibility of winning money or

materials (Korn & Shaffer, 1999; Potenza, Fiellin, Heninger, Rounsaville, & Mazure, 2002). Gambling traditionally includes activities such as wagering at casinos, on lotteries, animal racing, card games, sporting events, video lottery, and Internet card and casino games (Potenza et al., 2002). However, gambling may include everyday activities that might not normally be associated with connotations of the word *gambling* such as raffles sponsored by communities or organizations, bingo, or childhood board games.

The prevalence of adult gambling in the United States has been estimated at 86% (Potenza et al., 2002). In the US, the prevalence of adult “lifetime” problem gamblers has been estimated at 3.8%, and “past year” problem gamblers estimated at 2.8% (Potenza et al., 2002). “Lifetime” and “past year” pathological adult gamblers in the US have been estimated at 1.1% to 1.6%, respectively (LaPlante, Schumann, LaBrie, & Shaffer, 2008; Potenza et al., 2002). A meta-analysis compared 39 studies conducted in the US and several other countries, using different measures and modes to examine adult problem and pathological gambling. Results of the meta-analysis showed that problem gambling prevalence in general adult populations ranged from 0.1% to 4.5% (Sassen et al., 2011). More recently, Williams and colleagues (2012) found the population of problem gamblers is estimated at 3.2% of the US population, using data from 31 state studies of gambling prevalence. A state-specific study conducted in 2011 by the Center for Social and Behavioral Research (CSBR) at the University of Northern Iowa examined the prevalence of gambling in Iowa in the general population. Results suggested that 69% of adults had participated in one or more gambling activity in the past 12 months and 91% had participated in one or more gambling activity in their lifetime. Only 2.0% of the sample were identified as problem or pathological gamblers in the past 12 months (Gonnerman & Lutz, 2011). Among respondents ages 18-34, 67% had gambled in the past month and 2.7% were problem or pathological gamblers in the past 12 months (Gonnerman & Lutz, 2011).

Studies specifically of college students also suggest that gambling is not an uncommon activity. Approximately 80% of college students have gambled while in school (Seifried, Krenzolek, Turner, & Brett, 2009). Korn and Shaffer (1999) found that problem gambling is more common among college students than among adults or adolescents; results showed problem gambling rates of 1.71% among adults, 4.25% among adolescents, and 5.05% among college students (18-25). Over 2.5 million college students experience negative consequences as a result of their gambling; one million of these may be classified as pathological gamblers annually (Lostutter et al., 2012). Winters and colleagues (1998) found that among students attending two Minnesota college campuses in close proximity to casinos, 87% had gambled in the past year and 2.9% were identified as probable pathological gamblers, which the authors contrasted to lower rates of pathological gambling in previous research. Proximity to gambling venues was hypothesized to be a factor in the higher rate of pathological gambling (Winters et al., 1998). In comparison, Langewisch and Frisch (1998) found that 23.6% of male college students at the University of Windsor in Canada were identified as problem gamblers. In addition to any methodological/measurement differences, the wide range in prevalence rates may be accounted for by gambling policy differences between the US and Canada. In addition, differences in

sample size (impacting variability of results) between the two studies may also be a factor in the wide range in prevalence rates (n=1,361 in Minnesota compared to n=144 in Canada). A meta-analysis comparing 15 college gambling studies estimated that the prevalence of problem gambling among college students could range from as low as 3% to as high as 24% (Blinn-Pike, Worthy, & Jonkman, 2007). Research from the past 15 years presents gambling and in particular problem gambling among college students as an increasing public health problem and important issue to be addressed.

While gambling has, at times, been considered a socially deviant or immoral behavior in some cultures and throughout history, the American Psychiatric Association only first defined it to be a medically diagnosable health problem in 1980 in the 3<sup>rd</sup> version of the Diagnostic and Statistical Manual (3<sup>rd</sup> ed.; *DSM-III*; American Psychiatric Association, 1980; Korn & Shaffer, 1999). When gambling behavior results in behavioral, emotional, relationship, or financial problems, it may develop into a diagnosable condition known as problem or pathological gambling. The Diagnostic and Statistical Manual for Mental Disorders (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*) classifies problem and pathological gambling as an impulse control disorder (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000). Pathological gambling is defined as the most serious stage of problem gambling. However, with the May 2013 release of new diagnostic criteria in the fifth version of the DSM (*DSM-V*), pathological gambling has been identified as a behavior that can lead to addiction. The impetus for classifying gambling as an addiction came from health providers and researchers who identified similarities between problem gambling and substance abuse (O'Brien, 2010).

In the *DSM-IV-TR*, problem and pathological gambling are diagnosed according to 10 criteria that gauge an individual's gambling behavior (see Appendix A). These criteria encompass behaviors such as: preoccupation, arousal, lying, escapism, loss of control, negative social repercussions, and individuals' monetary habits (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000). The most predictive criteria of problem gambling are loss of control, lying, and preoccupation (Toce-Gerstein, Gerstein, & Volberg, 2009). A score of 3 or 4 indicates a problem gambling diagnosis, a less severe condition compared to pathological gambling. Scores of 5 or more suggest pathological gambling (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000).

## **Characteristics of Gambling Among College Students**

### **Types of Gambling and Participation Rates**

Gambling is a general term for a diverse array of activities. Gambling prevalence rates among college students vary by the specific type of gambling activity, although few national studies have been conducted to date. The lottery and casino games have been cited as the most popular gambling activities among college students (LaBrie, Shaffer, LaPlante, & Wechsler,

2003). According to an online study conducted with students at a public university, the lottery, scratch off tickets, and casino games (blackjack, craps, roulette, and slot machines) are the most popular types of gambling among college students; in the last 12 months, 67% of respondents had played scratch offs or the lottery and 62% had played various casino games (Atkinson et al., 2012). Atkinson and colleagues (2012) found that 38% of the respondents who had gambled in the last 12 months had played poker, 37% bought a raffle ticket, 33% bet on a sporting event, 24% have played bingo, and 8% had bet on dog and/or racing (Atkinson et al., 2012). It has also been reported that Internet gambling participation has increased for college-aged adults, especially males. Romer (2010) projected that over 400,000 college-aged males gamble for money on the Internet once a week, and over 1.7 million do a least once a month.

Rates of participation in specific types of gambling vary by gender. A study conducted among students at the University of California, Los Angeles found that in general college males gambled more than females, 62.9% versus 36.8%, respectively (Shead et al., 2012). In addition, males and females engaged in different types of games at different rates (Shead et al., 2012). Poker had the greatest prevalence of participation by college males with 47%, followed by casino games (29%), the lottery (27.9%), and Blackjack (24%) (Shead et al., 2012). Among college women gamblers, 20.8% played the lottery, followed by slots (16.5%), poker (15.3%), Blackjack (10.5%) and casino games (10%; Shead et al., 2012).

College-aged young adults gamble most often in two environments, the casino and online (Griffiths & Parker, 2002). Atkinson and colleagues (2012) found that 69% of 784 students surveyed at a public university had gambled at a casino in the past 12 months and 14% had gambled online in the past 12 months. Another study conducted with 18-20 year olds at two urban Canadian universities found that of the 465 participants, 8% of the students had gambled online in the past year. Of the respondents who had gambled online, 67.6% had played poker, followed by slot machines (18.9%), blackjack (18.9%), roulette (16.2%), and sports betting (13.5%; McBride & Derevensky, 2012).

## **Risk Factors**

Research has identified a number of risk factors that may be associated with an increased likelihood of gambling participation and problem gambling among college students. The most frequently reported risk factor among college students for gambling participation is male gender. Studies regarding gambling among college students have reported a higher prevalence of problem gambling among males than females (Blinn-Pike et al., 2007; Wong, Zane, Saw, & Chan, 2013; Stuhldreher, Stuhldreher, & Forrest, 2007; Zuckerman, 2006). For example, Wong and colleagues (2013) conducted a study among college students (ages 18-20) on the University of Illinois, Urbana – Campaign and University of California, Davis campuses. Results showed that males gambled nearly twice as much as females, with frequencies of 69% versus 36% respectively (Wong et al., 2013). Among males that gambled, 20.1% of respondents were classified as problem gamblers compared to 7.8% of female gamblers (Wong et al., 2013). In

addition, a meta-analysis of 15 studies on college gambling found male gender to be the only statistically significant ( $p = 0.0175$ ) risk factor for disordered gambling (Blinn-Pike et al., 2007).

In many studies, the use of alcohol, tobacco and drugs has also been identified as a risk factor for gambling and problem gambling among college students (Atkinson et al., 2012; Barnes et al., 2010; Goudriaan et al., 2009; Huang et al., 2011; Potenza et al., 2002; Shead et al., 2012; Winters et al., 1998). One study found that 50% of the respondents who gambled used drugs or alcohol while engaging in gambling behavior and 30% reported gambling while drunk or high (Atkinson et al., 2012). Shead and colleagues (2012) found that Internet gamblers at UCLA were more likely to drink alcohol, smoke cigarettes, and use marijuana than non-Internet gamblers and non-gamblers. Alcohol use (at least once a month) among Internet gamblers was estimated at 63.8%, non-Internet gamblers at 50.2%, and non-gamblers at 21.8%. Cigarette use among Internet gamblers was estimated at 30.4%, non-Internet gamblers at 25.7%, and non-gamblers at 9.4%. Last, marijuana use (past year) among Internet gamblers was estimated at 38.2%, non-Internet gamblers at 22.6%, and non-gamblers at 11.2%. It has been suggested that alcohol, tobacco, and drugs are co-morbidities of gambling, and that licit and illicit substances lower inhibitions and increase sensation-seeking and risk-taking (Welte, Barnes, Wieczorek, Tidwell, & Parker, 2001).

Attention Deficit and Hyperactivity Disorder (ADHD), a neurobehavioral disorder characterized by inattention, hyperactivity, and impulsiveness, has been identified as a risk factor for problem gambling (Breyer et al., 2009). A longitudinal study following children with ADHD through adulthood examined gambling behaviors of participants at ages 18 to 24 years. Findings showed that ADHD during childhood and young adulthood was positively associated with increased severity of gambling problems (Breyer et al., 2009). Research has shown that there is a link between addictive behaviors and ADHD, because individuals have lower impulsive control (Breyer et al., 2009).

Mental health concerns and mood disorders are also linked with gambling and problem gambling among college students (Petry & Wienstock, 2007; Quilty et al., 2011). In a study conducted at three universities, Petry and Wienstock (2007) found an association between poor mental health and pathological gambling. Internet gambling has been found to be a predictor of poor mental health: the more an individual participated in Internet gambling the more their mental health rating declined (Petry & Wienstock, 2007). A study of 2,006 students from Connecticut high schools (ages 14-17) found that depression and negative mood states were associated with problem and pathological gambling (Potenza et al., 2011). Other clinical studies have linked problem gambling to suicidal thoughts and attempts (Shaffer & Korn, 2002).

Lower personal and familial socioeconomic status (SES) has also been identified as a risk factor for gambling participation. One longitudinal study following children from age 3 into adulthood (age 32) found that lower personal and familial SES was associated with a higher likelihood of a gambling disorder at the ages of 21 and 32 (Slutske et al., 2012). Wong and

colleagues (2013) also found that lower familial socioeconomic status was associated with increased engagement in gambling.

Among college students, school-sponsored athletes and members of the Greek system are more likely to gamble than their non-affiliated counterparts. For example, a study conducted with college athletes in the South Eastern Conference compared gambling habits among athletes and non-athletes (Rockey et al., 2002). The authors found that gambling prevalence was very similar in the two groups but pathological gambling was more common among collegiate athletes (6%) than non-athletes (3.4%). This difference was particularly evident in males: 11.6% of male collegiate athletes were categorized as pathological gamblers compared to 6.6% of male non-athletes (Rockey et al., 2002). This study also found that college athletes (51.9%) were more likely to bet on skilled games like bowling and pool, compared to non-athletes (33.1%; Rockey et al., 2002). In another study of randomly selected student athletes from a 12% sample of NCAA member institutions, the prevalence of gambling (non-problem, sub-clinical, and problem gambling) was highest among male student athletes (Huang et al., 2011). The authors found that 16.1% of male athletes were classified as problem gamblers, and 2.2% were classified as pathological gamblers (Huang et al., 2011). Finally, in a study of 1,079 students where one-quarter of students identified as athletes, 5% of the athletes reported having a gambling debt at one time, compared to the 1% of non-athletes (Stuhldreher et al., 2007).

Prevalence of gambling and problem gambling is higher among members of the Greek system than non-members, especially fraternity members (Goudriaan et al., 2009; Rockey et al., 2002; Stuhldreher et al., 2007). Members of the Greek system were more likely to participate in casino games like blackjack, roulette, and poker. Rockey and colleagues (2002) found that Greek members were almost twice as likely to be classified as pathological (4.7%) or problem (5.4%) gamblers, than non-Greek members (2.9% pathological, 3.0% problem). Male fraternity members had a much higher prevalence rate (14.8%) than female sorority members (1.2%); however, both gambled more than the non-Greek population. In addition, fraternity members were over four times more likely to have a gambling debt (17%), compared to non-fraternity members (4%; Stuhldreher et al., 2007).

## **Consequences of Gambling**

For the occasional gambler, these behaviors may provide an innocuous opportunity for excitement, socialization, or boredom relief. When these behaviors increase, however, problem and pathological gambling create negative consequences in an individual's financial, social, and overall health. Gambling explored through the public health perspective looks at the effect of gambling on individual wellbeing and health, familial health, community health, health care system and public policy. Korn and Shaffer (1999) identified eight negative health and social consequences of gambling: gambling disorders, family dysfunction and domestic violence, youth and underage gambling, alcohol and other drug problems, psychiatric conditions, suicide and suicide ideation, significant financial problems, and criminal behavior.

Negative financial outcomes are among the most tangible consequences of gambling and problem gambling. College students are at a higher risk for financial problems than older adults due to other financial obligations from college expenses and tuition, as well as potential debt from the increased credit card availability to young adults (Norvilitis & Maria, 2002; Robb, 2011). A study conducted at two Mississippi universities found that older college students are more likely to have problematic financial behaviors (Worthy, Jonkman, & Blinn-Pike, 2010). According to Worthy and colleagues (2010) these problematic financial behaviors were associated with sensation-seeking and risk-taking activities like gambling. College students often use resources such as credit cards, debit cards, or borrowed money to gamble; this is common for adult gamblers as well, but these habits may have greater negative financial consequences in a younger population. For example, Shead and colleagues (2012) found that approximately one-third of their participants gambled with their credit card, 27% with their debit card, and 17% with wire transfers. In this study, college students at UCLA spent \$25 to \$500 while engaging in Internet gambling, with 56.1% spending \$25 dollars or less, 21.2% spending \$26-\$100 a session, 13.6% spending over \$101 to \$500, and 3% spending over \$500 (Shead et al., 2012). Atkinson and colleagues (2012) found that the mean amount of money spent on gambling a month was just under \$200 by college students. Further, the authors found that 48% of college aged gamblers said they had spent more money on gambling than they wanted to and 32% said they lost more than they could afford.

Another negative consequence of heavy gambling is poorer academic standing. Potenza and colleagues (2011) found an association between poor academic performance and pathological gambling in young adults (ages 14-18). Heavy Internet gambling was associated with grade averages of D or lower (Potenza et al., 2011).

## **Reasons for Gambling Among College Students**

### **Motivations for Gambling**

Research suggests that college students may be motivated to gamble for a number of reasons including to win money, excitement, enjoyment, boredom, and socialization (Lee, Chae, Lee, & Kim, 2007; Neighbors, Lostutter, Cronce, & Larimer, 2002; Shead et al., 2012). Identifying motivations for gambling behavior among college students is important to improve understanding how problem and non-problem gamblers differ (Neighbors et al., 2002).

A study of gambling among 184 undergraduate college students at a northwestern US university identified 16 motivations for gambling: money, enjoyment, excitement, social experiences, to occupy time, winning, competition, conformity, risk, test skill, interest, coping, the challenge, drinking, testing luck, and chasing the win. The most frequently reported motivations were money (42.7% of respondents), fun/enjoyment (23%), socialization (11.2%), excitement (7.3%), to occupy time (3.9%), and relieve boredom (2.8%; Neighbors et al., 2002).

A study of Korean college students narrowed the 16 motivations identified by Neighbors and colleagues to five factors that encompass gambling motives: 1) excitement, 2) socialization, 3) avoidance, 4) monetary, and 5) amusement (Lee et al., 2007). Excitement is defined as gambling for excitement or arousal; socialization is defined as gambling for interaction with family, friends, or new people; avoidance is defined as gambling to avoid stress, anxiety, and depression, monetary is defined as gambling for monetary gains; and amusement is defined as gambling for enjoyment, respectively (Lee et al., 2007; Neighbors et al., 2002). Internet gambling motives among college students have been found to be similar for non-Internet gambling. For example, a study conducted on Internet gambling at UCLA found that over one-half of the respondents indicated that they gamble for fun (53%) and/or to relieve boredom (56.1%) (Shead et al., 2012).

Motivations to gamble may be similar to motivations to engage in other risk behaviors (Cooper, Russell, Skinner, & Windle, 1992; Frankenberger, 2004; Patrick, Lee, & Larimer, 2011). Research on other risk behaviors (e.g., alcohol use, drug use, unprotected sex, reckless driving) has identified common motives such as enjoyment, socialization and coping (Frankenberger, 2004; Patrick, Lee, & Larimer, 2011). A study researching Internet gaming addiction found that coping with negative emotions, stress, fear and escape were the main motivations for Internet gaming (Kuss & Griffiths, 2012). In another example, Cooper and colleagues (1992) conducted one of the first studies that used random sampling of households in New York and found three factors that encompass motivations to drink alcohol: avoidance, socialization, and amusement. Lee and colleagues (2007) reported similar findings when using these motivations as part of their study about college gambling. Another study identified four motives for alcohol use among college students: enhancement, socialization, coping, and conformity. Enhancement/enjoyment was identified as the most significant motive associated with alcohol use among college students (Patrick et al., 2011). Comparatively, a study of marijuana use among college students found coping motives (*helps with depression/nerves*) and enhancement motives (*enjoying the feeling /it's fun*) were associated with marijuana use (Simons, Gaher, Correia, Hansen, & Christopher, 2005). Coping, socialization, and amusement/enhancement are prominent themes in the research conducted on motives in both gambling and other risk behaviors (Cooper et al., 1992; Frankenberger, 2004; Lee et al., 2007; Neighbors et al., 2002; Patrick et al., 2011; Shead et al., 2012).

### **Age and Emerging Adulthood**

Age, specifically the developmental stage of emerging adulthood and its related heightened sensation-seeking, has been linked to the motivation to engage in risk behaviors (Frankenberger, 2004). Emerging adulthood is a developmental stage that occurs during the 18-25 age range (although this range can vary because the period of life is a socio-cultural construct). Emerging adulthood is a distinctive period when one is neither an adolescent nor an adult: experiencing freedom and independence for the first time, but with less responsibility (fiscally and socially) than adults (Arnett, 2000). This developmental stage has been identified as the period in life during which one is focused on identity construction and exploration (Arnett,



2000). Research suggests that risk behaviors peak during emerging adulthood (Cooper et al., 1992; Frankenberger, 2004; Lee et al., 2007; Neighbors et al., 2002; Patrick et al., 2011; Shead et al., 2012). Prevalence of behaviors such as substance abuse, substance exploration, risky sexual behaviors, risky driving behavior, and gambling are highest during emerging adulthood (Ravert et al., 2009). Arnett (2000) explains that increased participation in risk-taking during this time is related to identity exploration and the desire to gain different experiences, often through sensation-seeking.

Sensation-seeking is defined by an “individual’s need to constantly experience new stimuli, especially those that provide a ‘rush’ of strong physical and emotional arousal” (Ravert et al., 2009, p. 763). Zuckerman (1994) hypothesized that sensation-seeking is a developmental trait, imbedded in one’s cognitive and motor skills. Emerging adults are predisposed to partake in sensation-seeking behavior, increasing an individual’s participation in risk-taking (Zuckerman, 1994). Arnett (2007) suggests that stimulation and arousal is an integral part of sensation-seeking and asserts that as individuals enter emerging adulthood sensation-seeking behavior will increase, consequently increasing participation in risk-taking (Arnett, 2007, Zuckerman, 2008; Zuckerman, 1994). Studies have found that males report a higher frequency of sensation-seeking than females (Lalasz & Weigel, 2011; McDaniel & Zuckerman, 2003; Zuckerman, 1978). Zuckerman (2006) suggests that the gender difference in the prevalence of gambling and problem gambling is an artifact of males being more inclined to participate in sensation-seeking and risk-taking activities.

There is a large body of research associating sensation-seeking and risk-taking with gambling (Zuckerman, 1994; McBride & Derevensky, 2012; Langewisch & Frisch, 1998). Researchers have found that decision making is linked with age: younger individuals are more likely to make disadvantageous decisions (Cauffman et al., 2010). Also, adults in their early twenties are more likely to gamble than other ages (Welte et al., 2001). A study of gambling habits by students at two Canadian universities conducted by McBride and Derevensky (2012) found that problem gamblers reported a higher level of sensation-seeking and risk-taking than non-problem gamblers. Studies have also linked gambling to financial risk and sensation-seeking (Worthy et al., 2010). For example, a study of undergraduate students at two state universities in Mississippi found students with high sensation-seeking scores had more problematic financial behaviors specifically related to gambling (Worthy et al., 2010). Respondents who scored higher on the South Oaks Gambling Survey (SOGS) were often classified as having problematic financial behavior (Worthy et al., 2010).

Sensation-seeking, as a personality trait, has also been linked to impulsivity. Pathological gambling is labeled as an impulse control disorder by the DSM-IV (4<sup>th</sup> ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000; Langewisch & Frisch, 1998). Impulsivity is “spontaneous, unplanned or unpremeditated behavior... encompass[ing] the inability to plan ahead, act without thinking, speed of response, and risk-taking” (Langewisch & Frisch, 1998, p. 247). The constructs of sensation-seeking and risk-taking are components of impulsivity.

Langewisch and Frisch (1998) found a positive association between pathological gambling, sensation-seeking, and impulsivity among male college students.

Another developmental concept linked with risk behavior among emerging adults is a sense of invulnerability (Elkind, 1978). Hill and colleagues (2011) suggest that emerging adults engage in risk behaviors at a higher rate because of their perceived invulnerability. Among emerging adults, invulnerability leads to a failure to acknowledge and/or avoid dangerous situations, assessing limited risk to themselves while engaging in high-risk behaviors (Frankenberger, 2004; Ravert et al., 2009). Researchers have found that invulnerability is positively associated with participation in risk behaviors including drinking, drug use, smoking, and gambling (Ravert et al., 2009; Frankenberger, 2004). The personality trait sensation-seeking and a sense of invulnerability are two factors that may explain risk-taking behaviors among emerging adults (Ravert et al., 2009). Both have also been cited as predictors of health risk behaviors (Ravert et al., 2009).

## **Methods for Measuring Gambling among College Students**

### **Diagnostic and Statistical Manual, 4<sup>th</sup> Edition (DSM-IV)**

The diagnosis of pathological gambling was first introduced to the DSM in 1980 as part of the DSM-III. In the DSM-III, seven diagnostic criteria were included. In the DSM-IV, 10 diagnostic criteria for pathological gambling were included and the disorder was placed in the “Disorders of Impulse Control not Elsewhere Classified” section of the DSM-IV (Reilly & Smith, 2013). The 10 diagnostic criteria were based on respondents’ cumulative experiences related to their gambling behaviors and problems (Abbott & Volberg, 2006). The 10 criteria encompassed preoccupation with the behavior, financial consequences, mood issues, and negative relationship acts or events in an individual’s life (4<sup>th</sup> ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000). A score of five or higher out of 10 would indicate a diagnosis of a pathological gambler. Stinchfield (2003) conducted a study that measured the validity and reliability of the DSM-IV pathological gambling scale and found that if an individual scored 0, 1, or 2 there was almost no chance of a clinical pathological gambling diagnosis, a score of 3 indicated a 29% likelihood, a score of 4 indicated a 63% likelihood, a score of 5 or higher indicated an 82% likelihood, and a score of 6 or higher indicated almost 100% certainty of pathological gambling diagnosis. The DSM-IV criteria were shown to have an internal consistency, Cronbach’s alpha of approximately 0.90 (Stinchfield, 2003; Stinchfield, Govoni, & Frisch, 2005). The DSM-IV was originally designed to be used in the clinical setting, however, it also has been adapted to be used in self-report survey research. The main criticism of the DSM-IV criteria is that gambling disorders often exist on a continuum and the cut-off score of five may not accurately assess all people with gambling disorders (Reilly & Smith, 2013).

The DSM-V was released in May 2013. In the DSM-V, pathological gambling has been relocated to the “substance use disorders” section due to the growing body of peer-reviewed literature and clinician findings that point to commonalities between gambling and substance use disorders. In the DSM-V, pathological gambling will be referred to as a “gambling disorder.” Finally, the 10 criteria were reduced to 9 (eliminating the criterion related to committing illegal acts to finance gambling behaviors). The new 9-item scale has a cut-off score of four instead of five to define pathology (Reilly & Smith, 2013).

### **National Opinion Research Center DSM-IV Screen (NODS)**

The National Opinion Research Center (NORC) created a self-report measure that operationalized the DSM-IV diagnostic criteria into a screening questionnaire called the National Opinion Research Center DSM-IV Screen for Gambling Problems (NODS). The NODS questionnaire contains 34 questions: 17 questions gauge lifetime gambling habits and 17 questions gauge gambling behavior in the last year (Abbott & Volberg, 2006). A score of 1 or 2 on the NODS scale indicates at-risk gambling, 3 or 4 indicates problem gambling, and a score of 5 or greater indicates pathological gambling (Abbott & Volberg, 2006). The NODS has a 95% accuracy rate, as degree of closeness to the actual classification, at identifying problem gamblers according to Abbott and Volberg (2006).

### **South Oaks Gambling Screen (SOGS)**

The SOGS is another common self-report measure used to identify individuals with a gambling problem (Abbott & Volberg, 2007; Blinn-Pike et al., 2007; Derevensky & Gupta, 2000; Hodgins & el-Guebaly, 2000; Petry & Wienstock, 2007; Winters et al., 1998; Worthy et al., 2010). The SOGS is a 16 item questionnaire (20 point scale) that gauges gambling behaviors, consequences, spending habits, and feelings about gambling (Lesieur & Blume, 1987; Abbott & Volberg, 2007; Derevensky & Gupta, 2000). A score of 5 or more indicates pathological gambling, 3 or 4 indicates problem gambling (Winters et al., 1998). The SOGS was found to have a reliability rate, as degree of agreement among multiple measures, of 0.69 for the general population and 0.86 for individuals in treatment (Stinchfield, 2002).

### **Comparison of Measures**

According to Abbott and Volberg (2006) while there are some differences between the SOGS and DSM-IV questionnaires, the two instruments are positively correlated when identifying both lifetime ( $r = 0.81$ ) and past-year ( $r = 0.79$ ) pathological gambling, (Cox, Enns, & Michaud, 2004).

However, researchers comparing the DSM-IV and SOGS found that the DSM-IV is a more conservative measure of problem gambling (Derevensky & Gupta, 2000; Ladouceur et al., 2000). Moreover, Abbott and Volberg (2006) identified several shortcomings of the SOGS. The authors found that with its focus on current gambling habits, consequences, and behaviors, the SOGS often misdiagnoses gamblers because problem gambling and associated consequences may be transitory events in a person’s life. Another criticism argues that the SOGS produces a

high rate of false positives and inflated prevalence rates in nonclinical settings (Abbott & Volberg, 2006; Culleton, 1989; Dickerson, 1990; Ladouceur et al., 2000; Thompson, Walker, Milton, & Djukic, 2005). Cox and colleagues (2004) reported that the SOGS scoring attaches too much weight to debt and the different types of debt accumulated while gambling.

## **Methods of Measuring Gambling Behavior**

Survey research using self-reported measures is the most common way to assess gambling behavior among college students, because it is less expensive and requires less time than other methods according to Shaffer and colleagues (2010) and Shaffer and Korn (2002). Studies that rely on self-report have suggested prevalence of pathological gambling ranging from 1.2% to 33% (Shaffer et al., 2010). An alternative to self-report is observation and assessment of real-time gambling behavior. Shaffer and colleagues (2010) observed gambling habits through the Internet gambling resource BWIN (an Internet betting service provider); analyzing data through the monitoring of individual and population characteristics and gamblers' behaviors while participating online. Collecting data through assessment and observation may provide less biased, more objective information about betting habits, gambling behaviors, and prevalence of gambling (Shaffer et al., 2010), but it is resource-intensive in both time and money.

Student participants in studies of college gambling are often recruited in one of two ways: the classroom setting (generally leading to a paper and pencil or online questionnaire administered in class) or through university-wide email distribution lists with a link to an online questionnaire (Shead et al., 2012; Winters et al., 1998; Atkinson et al., 2012; Blinn-Pike et al., 2007). In general, most self-report questionnaires measuring gambling behavior have followed a consistent format. This includes a diagnostic gambling measure (SOGS, DSM-IV-TR, etc.), demographic questions, and a few questions about co-morbidities such as alcohol and drug use, financial well-being, and physical and mental well-being (Atkinson et al., 2012; Huang et al., 2011; Shead et al., 2012; Wong et al., 2013).

## **Gambling Treatment**

Gamblers seek treatment for many reasons ranging from the psychological to financial. Hodgins and el-Guebaly (2000) found that approximately one-quarter of participants sought treatment because their gambling was incompatible with their image and did not like being perceived as having a gambling problem. The authors also found that financial problems can lead individuals to seek treatment. A study conducted in Ontario of the general population found that older and more educated people were more likely to seek treatment (Rush, Adlaf, Veldhuizen, Corea, & Vincent, 2005). According to Rush and colleagues (2005), the participation rate in gambling treatment in Ontario is practically zero. They estimated that 2% of the population in Ontario would meet criteria for problem gambling; and of that 2%, only approximately 2% will enter treatment (Rush et al., 2005).

## Treatment of Problem Gambling Generally

Individuals with problem and pathological gambling problems may attempt to resolve their gambling behavior through several methods: natural recovery, self-help, behavioral strategies, and cognitive therapy (Dennis, White, & Ives, 2009; Hodgins & el-Guebaly, 2000; Lesieur, 1998; Petry, Weinstock, Morasco, & Ledgerwood, 2009; Toneatto & Millar, 2004;). Some researchers believe that because problem and pathological gambling are not always chronic or persistent, and are transitory in nature, treatment may be unnecessary (Hodgins & el-Guebaly, 2000; Slutske, 2006). In natural recovery, individuals stop gambling without engaging in self-help or clinical treatment (Hodgins & el-Guebaly, 2000). Natural recovery appears to be the most common path to resolving problem gambling behavior, although it is not considered a formal treatment method. Individuals with less severe gambling problems are more likely to engage in natural recovery (Hodgins & el-Guebaly, 2000). Hodgins and el-Guebaly (2000) found that the primary reason individuals who reported natural recovery did not seek treatment was the desire to handle their problem on their own (80%). Other reasons for attempting to resolve gambling problem through natural recovery include ignorance of treatment or availability (55%), stigma (53%), and embarrassment/pride (50%; Hodgins and el-Guebaly, 2000). Slutske (2006) found that 90% of individuals with a lifetime history of DSM-IV pathological gambling, but no gambling-related problems in the past year, had not sought formal treatment to resolve their gambling habits. However, relapse is fairly common following natural recovery, especially when problem/pathological gambling is coupled with psychiatric co-morbidities (Dennis et al., 2009).

A second, informal approach for the treatment of problem gambling is the use of self-help methods. Self-help methods are fairly common, such as group-centered meetings, self-help manuals and books (Lesieur, 1998; Slutske, 2006). Gamblers Anonymous (GA) is a self-help meeting centered around 12 principles similar to Alcoholics Anonymous (Lesieur, 1998). Self-help methods may have short-term effects (e.g., temporarily decreasing gambling behavior) but fewer long-term impacts (Toneatto & Millar, 2004). In Iowa, there is limited availability of GA meetings with a total of 19 meetings across the state, and 6 of 19 are held in Sioux City.

Formal treatment options for problem and pathological gambling include both behavioral and cognitive treatment approaches. Behavioral strategies include participating in non-gambling activities, stimulus control therapy, relaxation techniques and imaginal relaxation (Dennis et al., 2009; Hodgins and el-Guebaly, 2000). However, similar to the challenge of natural recovery in the presence of psychiatric co-morbidities, studies have also shown that behavioral therapy is less effective when there are co-occurring conditions, such as found in the 73% of problem gamblers who have three or more co-occurring conditions (mental health, substance abuse, etc.). While endorsed as a treatment option by the medical field (Hodgins & el-Guebaly, 2000), behavioral treatment has not been found to be generally effective (Toneatto & Millar, 2004).

Another option for formal treatment is cognitive therapy. Cognitive treatment has proven to be successful among problem gamblers both in the general population and college population (Lesieur, 1998; Petry, 2009). Cognitive-behavioral treatment combines cognitive and behavioral

methods emphasizing self-monitoring behavioral tactics, problem solving skills, and relapse prevention. Studies have shown cognitive-behavioral treatment to still be effective when followed up at 6 and 9 months (Ladouceur, Boisvert, & Dumont, 1994; Lesieur, 1998).

There are many factors that contribute to maintaining gambling behavioral change and preventing relapse following natural recovery, self-help, or formal treatment. Researchers have recognized that treatment should not be homogenous; it should be adaptable to account for the different backgrounds, needs, and intensities of addiction among problem and pathological gamblers. The most effective option may be a combination of treatment methods (Dennis et al., 2009) and socio-behavioral conditions that provide the individual, interpersonal, and environmental support needed in recovery. Hodgins and el-Guebaly (2000) found that maintaining involvement in some sort of treatment (28%), social support from friends and family (30%), recounting negative memories (33%), and stimulus control (12%) were the most commonly reported effective strategies to maintaining gambling cessation.

### **Treatment of College Gamblers**

Few studies to date have specifically focused on treatment of college students' problem gambling. As stated previously, age is often the predictor of treatment; with younger people less likely to participate in treatment. Petry and colleagues (2009) compared different gambling treatment interventions with college students. Four different interventions were tested with college students classified as problem or pathological gamblers. Evaluating the interventions with six and nine month follow-up, they found the most beneficial treatment was called Motivation Enhancement Therapy (MET) which included a gambling assessment and a 50-minute individual session with a therapist. This session included feedback about the student's gambling such as positive and negative consequences of gambling, and how gambling fit in with their life plan (Petry et al., 2009). This intervention was deemed most effective because it allowed students some autonomy and was not time intensive.

In general, less is known about the treatment of college problem gamblers than the general population. College students are less likely to seek treatment, so fewer studies have been conducted about the treatment needs of this population. Research gaps are present in methods of treatment, success rates, behavioral retention rates, and overall gambling experiences by the college population.

### **Barriers to Problem Gambling Treatment**

Gamblers seeking treatment may encounter a variety of barriers. Research with the general gambling population has identified three categories of barriers to treatment: interpersonal, environmental and individual (Suurvali, Cordingley, Hodgins, & Cunningham, 2009; Pulford et al., 2009; Delfabbro, Lahn, & Grabosky, 2005; Rockloff & Schofield, 2004; Hodgins & el-Guebaly, 2000).

Interpersonal barriers are often the most common and strongest barriers to treatment, including stigma, shame and embarrassment (Cooper, 2001; Evans, Bowman, & Turnball, 2005;

Hodgins & el-Guebaly, 2000; Pulford et al., 2009; Rockloff & Scholfield, 2004; Tavares, Martins, Zilberman, & el-Guebaly, 2002). In a study of the general population, Hodgins and el-Guebaly (2000) found that 53% of respondents identified stigma and 50% identified embarrassment or pride as a barrier to treatment. Rockloff and Schofield (2004) surveyed the general population's perception of gambling treatment barriers and found stigma to be the second most common barrier which was identified more often by men than women. Non-resolved (gamblers who have not addressed their gambling addiction) pathological gamblers are more likely to identify embarrassment and pride as barriers to treatment than resolved (former pathological gamblers) gamblers, 59% to 35% comparatively (Hodgins & el-Guebaly 2000).

Environmental barriers to gambling treatment include cost, effectiveness, availability, and confidentiality (Hodgins & el-Guebaly, 2000; Pulford et al., 2009; Suurvali et al., 2009; Rockloff & Schofield, 2004). Availability was the most commonly identified barrier to treatment in the study conducted by Rockloff and Schofield (2004). There may be a sense of distrust, perceived lack of confidentiality and skepticism of the actual effectiveness of gambling treatment, and treatment in general (Delfabbro et al., 2005; Hodgins & el-Guebaly, 2000; Pulford et al., 2009; Rockloff & Schofield, 2004). Hodgins and el-Guebaly (2000) found that 55% of respondents identified treatment availability as a barrier to gambling treatment. Rockloff and Schofield (2004) reported that cost was the third most reported barrier to gambling treatment. In Rockloff and Schofield's (2004) study, individuals who scored higher on the SOGS were more likely to identify availability and cost as their largest barriers to treatment.

Individual barriers to gambling treatment include avoidance, inability to share problems, desire to handle problems themselves and not wanting to stop gambling (Boughton & Brewster, 2002; Evans et al., 2005; Hodgins & el-Guebaly, 2000; Ladouceur et al., 1994; Pulford et al., 2009; Suurvali et al., 2009; Tavares et al., 2002). Hodgins and el-Guebaly (2000) found that 49% of individuals identified inability to share problems as a barrier to seeking treatment and 50% stated avoidance was a reason for not seeking treatment. The study conducted by Rockloff and Schofield (2004) found that males and individuals with higher levels of education identified avoidance as the main barrier to gambling treatment. The extent to which these findings regarding barriers apply to college gamblers has not yet been studied extensively.

## **Conclusion**

Gambling prevalence rates among college students vary by the specific type of gambling activity, but gambling is more common among college males than females. Male gender is the most commonly reported risk factor for gambling participation among college students. Other risk factors and comorbidities have been identified among college students including substance use, lower socio-economic status (SES), participation in athletics, and membership in the Greek system. Although gambling is fairly common with high percentages of students nationwide reporting gambling in the past year, problem or pathological gambling is much less common.

For the occasional gambler, engaging in occasional gambling ventures may provide an innocuous opportunity for excitement, socialization, or relief of boredom. However, negative consequences may occur among problem gamblers. Financial consequences are among the most tangible consequences of gambling and problem gambling. College students are at a higher risk for financial problems than older adults due to other financial obligations from college expenses and tuition, as well as potential debt from the increased credit card availability to young adults. Another negative consequence of heavy gambling among college students is poorer academic standing.

Research suggests that college students may be motivated to gamble for a number of reasons including to win money, excitement, enjoyment, boredom, and socialization. Age, specifically the developmental stage of emerging adulthood and its related heightened sensation-seeking, has been linked to the motivation to engage in risk behaviors. Sensation-seeking and risk-taking are associated with increased gambling prevalence; sensation-seeking and a sense of invulnerability may explain risk-taking behaviors among emerging adults.

Many gamblers do not seek formal treatment; research suggests that in most cases gamblers self-treat in an attempt to undergo natural recovery for problem gambling. Less research has been conducted on treatment-seeking and treatment methods among college students than among adults. Individual, interpersonal and environmental barriers (e.g., stigma, cost, availability) may be serious barriers to treatment for college students.

To gain a better and more complete understanding of gambling-related knowledge, attitudes, and behaviors among college students, additional research is needed. Both quantitative and qualitative research methods should be employed to gain a richer perspective of the topic. Additional quantitative and qualitative research is needed using instruments that are specifically tailored to the unique experiences of college students and intended to explore the ways in which college students differ from the general population with regard to gambling and gambling treatment. The evidence presented and synthesized in this review of the literature suggests that problem gambling research and treatment for college students may need to be different from the research and treatment conducted with adults. In addition, sub-populations within the college student population may have unique qualities, barriers and issues of stigma in ways that are different from each other and from the general population.



## B. Pilot Survey of College Students

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### Methods

An online survey was conducted with students (18 years of age and older) at two Iowa institutions, the University of Northern Iowa (UNI) and Kirkwood Community College. Eligibility requirements included that students were enrolled at least part-time at the institution and were over age 18. Individual invitation emails were sent to 5,000 students in a random sample frame at each institution. The UNI invitation included information about the study and a unique, individual link to an online questionnaire. The Kirkwood invitation included information about the study, a generic link to the survey, and a unique ID code for the respondent to enter to access the questionnaire. Up to two reminder emails were sent to increase response rates. The online survey was hosted on Qualtrics, a secure survey hosting platform. Questionnaire topics included gambling behavior, perceptions of gambling and other addiction treatment, and awareness of gambling treatment services (see Appendix B for the questionnaire and item frequencies). Demographic items were also included. Participants at each institution were entered into a drawing to win an iPad mini. One iPad mini was allocated for each institution (two total). The field period for the pilot study was April and May of 2013. All participants were provided with contact information to gambling treatment services in Iowa through the 1-800-BETS-OFF telephone helpline. Pilot study procedures were approved by the UNI Institutional Review Board (IRB) and informed consent was obtained electronically from all respondents at the beginning of the survey. Quantitative analysis procedures were conducted with IBM SPSS Statistics v.21 software. Descriptive statistics and between-group comparisons were conducted to examine response differences.

### Findings

Of the 5,000 UNI students invited to participate in the study, 709 responded to the questionnaire, reflecting a 14% response rate. Of the 5,000 Kirkwood students invited to participate, 143 responded to the questionnaire, reflecting a 3% response rate. Due to the small sample size achieved with Kirkwood students and potential for significant variability and nonresponse bias, only results of analysis with demographic variables are presented in the report narrative for that sub-group. Remaining analysis is presented for the UNI sample only. However, item frequencies for Kirkwood responses are presented in Appendix B.

### Demographic Characteristics

Demographic characteristics of the two samples can be found in Table 1. Mean age was 21.5 years among UNI students and 22.5 years among Kirkwood students. Average grade point average (GPA) was 3.34 among UNI students and 3.15 among Kirkwood students.

Table 1. Demographic characteristics of respondents

	UNI		Kirkwood	
	n	%	n	%
Gender				
Female	367	59.6%	92	64.3%
Male	246	39.9%	51	35.7%
Transgender	1	0.2%	0	--
Race/Ethnicity (responding yes)				
Hispanic/Latino	15	2.4%	6	4.2%
White	560	79.0%	120	65.9%
Black or African American	4	0.6%	5	2.7%
Asian	9	1.3%	5	2.7%
Native Hawaiian or Other Pacific Islander	0	--	1	0.5%
American Indian or Alaska Native	4	0.6%	1	0.5%
Other	11	1.3%	2	1.1%
Two or More Races	14	3.0%	7	3.8%
Prefer Not to Answer	102	14.4%	41	22.5%
International student	7	1.1%	6	4.2%
Marital status				
Single, never married	566	91.9%	114	79.7%
Married	25	4.1%	21	14.7%
Divorced	10	1.6%	1	0.7%
Widowed	0	--	0	--
Separated	1	0.2%	1	0.7%
Domestic partnership (unmarried couple)	12	1.9%	6	4.2%
Currently employed for wages	422	68.6%	100	69.9%
Monthly disposable income				
Less than \$50	166	27.0%	31	21.7%
\$50 to less than \$100	196	31.9%	37	25.9%
\$100 to less than \$250	110	17.9%	36	25.2%
\$250 to less than \$500	47	7.6%	13	9.1%
More than \$500	21	3.4%	12	8.4%
Not sure	54	8.8%	7	4.9%
Prefer not to answer	21	3.4%	7	4.9%
Status in school				
1 <sup>st</sup> year undergraduate	84	13.7%	40	28.0%
2 <sup>nd</sup> year undergraduate	96	15.6%	46	32.2%
3 <sup>rd</sup> year undergraduate	194	31.5%	17	11.9%
4 <sup>th</sup> year undergraduate	186	30.2%	8	5.6%
5 <sup>th</sup> year or higher undergraduate	49	8.0%	10	7.0%
Other	3	0.5%	7	11.9%
Prefer not to answer	3	0.5%	5	3.5%
Extracurricular involvement				
Social fraternity or sorority	47	7.2%	8	9.1%
Student organization	332	50.6%	24	27.3%
Club or intramural sports	186	28.4%	17	19.3%
NCAA sports	21	3.2%	3	3.4%
Other	70	10.7%	36	40.9%

Table 1. Demographic characteristics of respondents (continued)

	UNI		Kirkwood	
	n	%	n	%
<b>Housing/Living situation</b>				
On campus	257	41.8%	6	4.2%
Off campus apartment or house	317	51.5%	96	67.1%
Fraternity or sorority house	9	1.5%	1	0.7%
In the home of parent or guardian	28	4.6%	34	23.8%
Other	3	0.5%	5	3.5%
<b>Cohabitation</b>				
Alone	77	12.5%	12	8.4%
With friends or acquaintances	419	68.2%	47	32.9%
With a significant other	54	8.8%	38	26.6%
With parent or guardian	30	4.9%	35	24.5%
Other	32	5.2%	9	6.3%
<b>Payment for majority of college costs</b>				
Primarily parents	119	19.4%	19	13.3%
Primarily self	74	12.1%	34	23.8%
Primarily student loans or grants	178	29.0%	46	32.2%
Primarily scholarships	53	8.6%	4	2.8%
Combination of the above	185	30.1%	37	25.9%
Don't know/Not sure	1	0.2%	2	1.4%

### **Demographic Comparison to UNI Student Population**

The gender breakdown of UNI respondents was similar to that of the UNI student population (UNI, 2013). In the sample, the division was approximately 40% male and 60% female whereas in the UNI student body the division was approximately 42% male and 58% female in 2012. Similarly, the racial and ethnic breakdown of the UNI survey respondents was comparable to the division of the UNI student population, although the study population contained a larger proportion of white respondents than appear in the UNI student body (79% white in the survey sample compared to 76% white in UNI student body).

### **Types of Gambling**

Among all UNI respondents, 69% reported engaging in at least one of the types of gambling included in the questionnaire during the past year. Figure 1 shows the proportion of UNI respondents that reported engaging in each type of gambling during the past year. Over one-third of all respondents said they had gambled on card games with friends or family, scratch tickets or pull tabs, and games of personal skill. Approximately one-fourth said they had gambled on slot machines, raffle tickets, and pools such as March Madness or baby due dates. One-fifth said they had gambled on casino table games or lotteries such as Mega Millions or Powerball. Among all respondents, the average (mean) number of types of gambling engaged in was three.

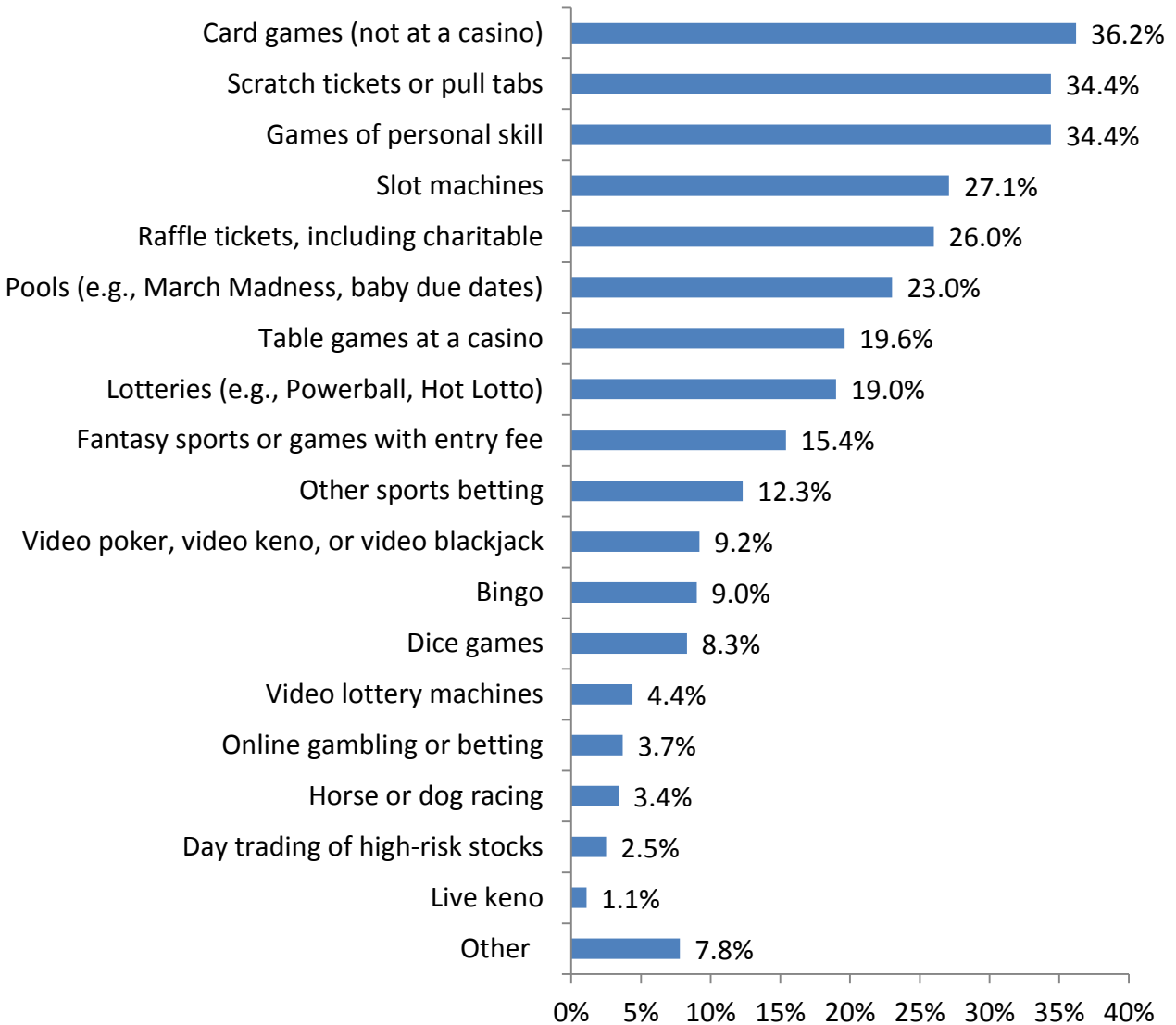


Figure 1. Types of gambling reported by UNI students.

### *Internet Gambling*

Respondents who indicated they had gambled online in the past year were asked a follow-up question to specify the online gambling activities in which they had participated. Regarding specific types of Internet gambling or betting, 5% of all UNI respondents said they had played online poker, 5% fantasy sports leagues, 4% online blackjack, and 4% sports betting on actual games. More than two in five UNI students (42.5%) said they recalled ever seeing advertisements for gambling on social media sites such as Facebook. Only 3% (23) of all UNI respondents said they had ever clicked on such an advertisement to enter an online gambling site, including free gambling sites.

## Gambling Behavior

### Age at Initiation

Among UNI students who reported any gambling in the past year, more than one-half said they were 15 years old or older the first time they gambled (Figure 2).

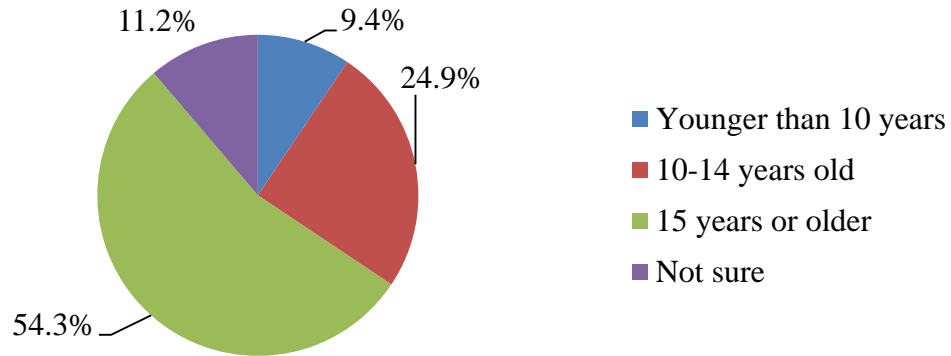


Figure 2. Age at which respondents first gambled, among those who reported any gambling in the past year.

### Gambling Frequency

Among students who reported gambling in the past year, 14% said they gambled more than monthly (*2-3 times per month, once per week, more than once per week, every other day, or daily*). Another 16% said they gambled once per month or every other month and 57% said they gambled one, two, or three times per year.

### Money Spent, Won, and Lost While Gambling

Nearly one-half of students who reported gambling in the past year said they think they spend less than \$25 on gambling in the course of a year. Another 19% said they spend \$25 to \$50 and 12% said they spend \$51 to \$100. Only 20% said they spend more than \$100 on gambling over the course of a year.

Three-fourths of UNI respondents who reported gambling in the past year said they lost money during at least one of the last three times they gambled (74%). Correspondingly, 26% said they had not lost money during any of their last three gambling ventures. In contrast, 38% said they had not won money during any of their last three gambling ventures.

The majority of students who reported gambling in the past year said the largest amount of money they had ever gambled with, lost, or won in a single day was \$50 or less (Figure 3).

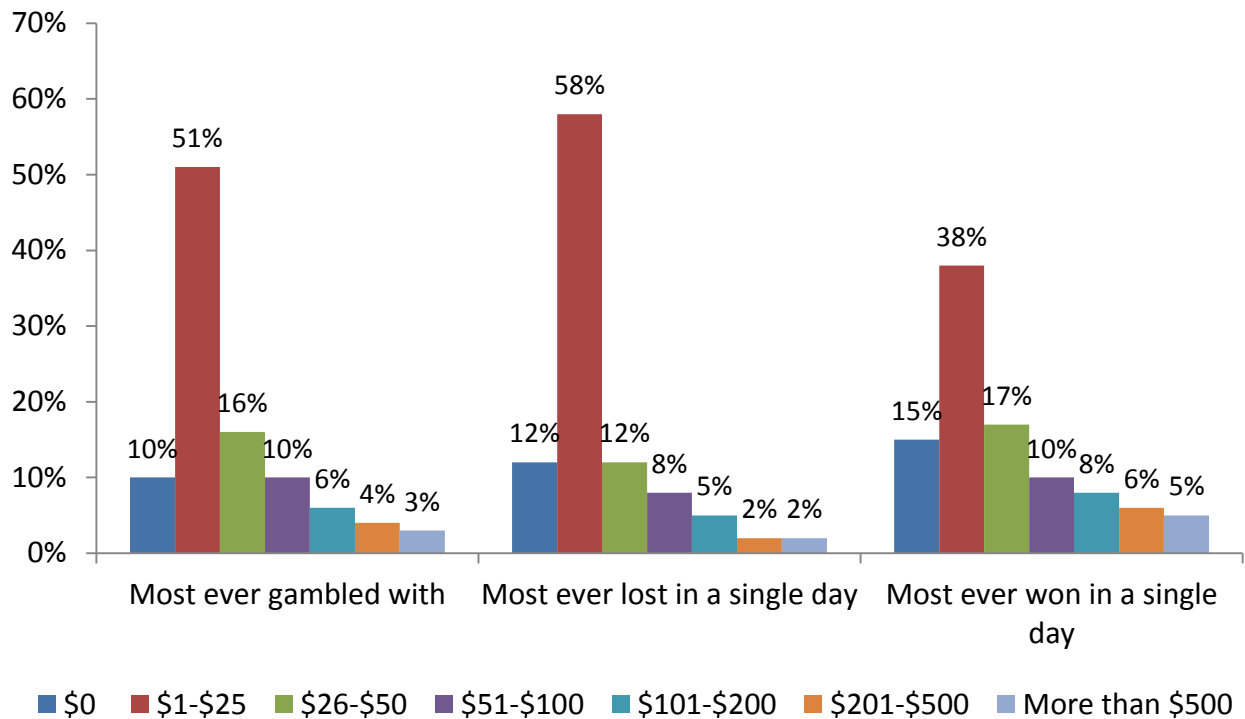


Figure 3. Largest amount gambled with, lost, and won in a single day, among students who gambled in the past year.

Students who said the largest amount they had gambled with, lost, or won was more than \$500 were asked to specify a dollar amount. The largest amount ever gambled with ranged from \$600 to \$15,000 (mean = \$2,942). The largest amount ever lost in a single day or evening ranged from \$500 to \$7,000 (mean = \$2,131). The largest amount ever won in a single day or evening ranged from \$600 to \$15,000 (mean = \$3,115).

### Reasons for Gambling

Over three-fourths of respondents who said they gambled more than once per year (n = 326) said that gambling as a source of entertainment or fun was an *important* or *very important* reason they gambled (78%), 66% said that gambling as a source of excitement or challenge was a reason they gambled, 63% said a reason was that gambling was way to socialize with friends, and 52% said that gambling was a way to win money (Figure 4).

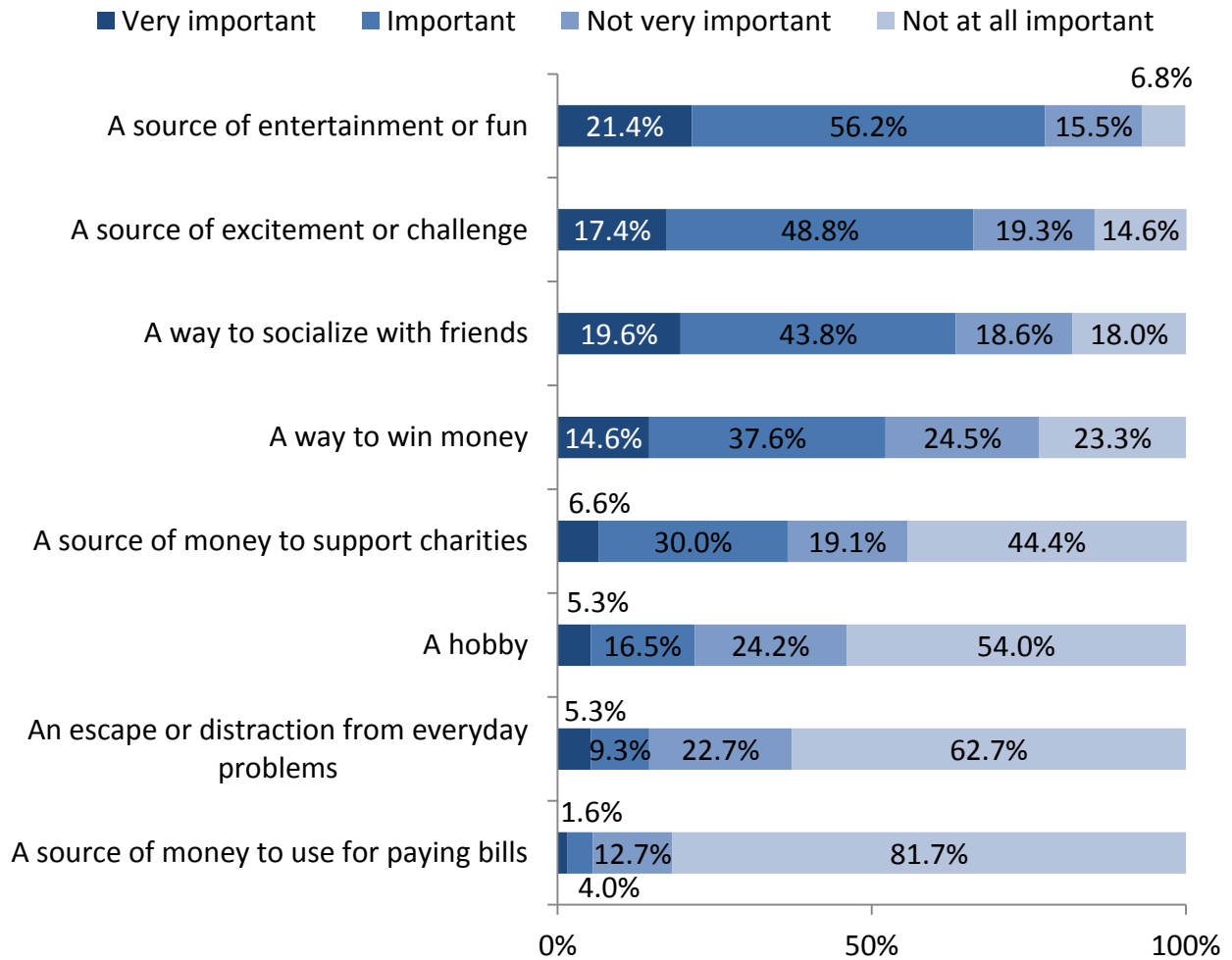


Figure 4. Motivations for gambling among respondents who gambled more than once per year.

### Reasons for Not Gambling

Among respondents who said they gambled just once per year or never, the two common reasons for not doing so that were most frequently cited as *important* or *very important* were that they were simply not interested in gambling (84%) and that they were concerned about the possibility of losing money (82%). More than two-thirds (69%) said they don't have the money for gambling and 57% said they have moral or ethical concerns about gambling (Figure 5).

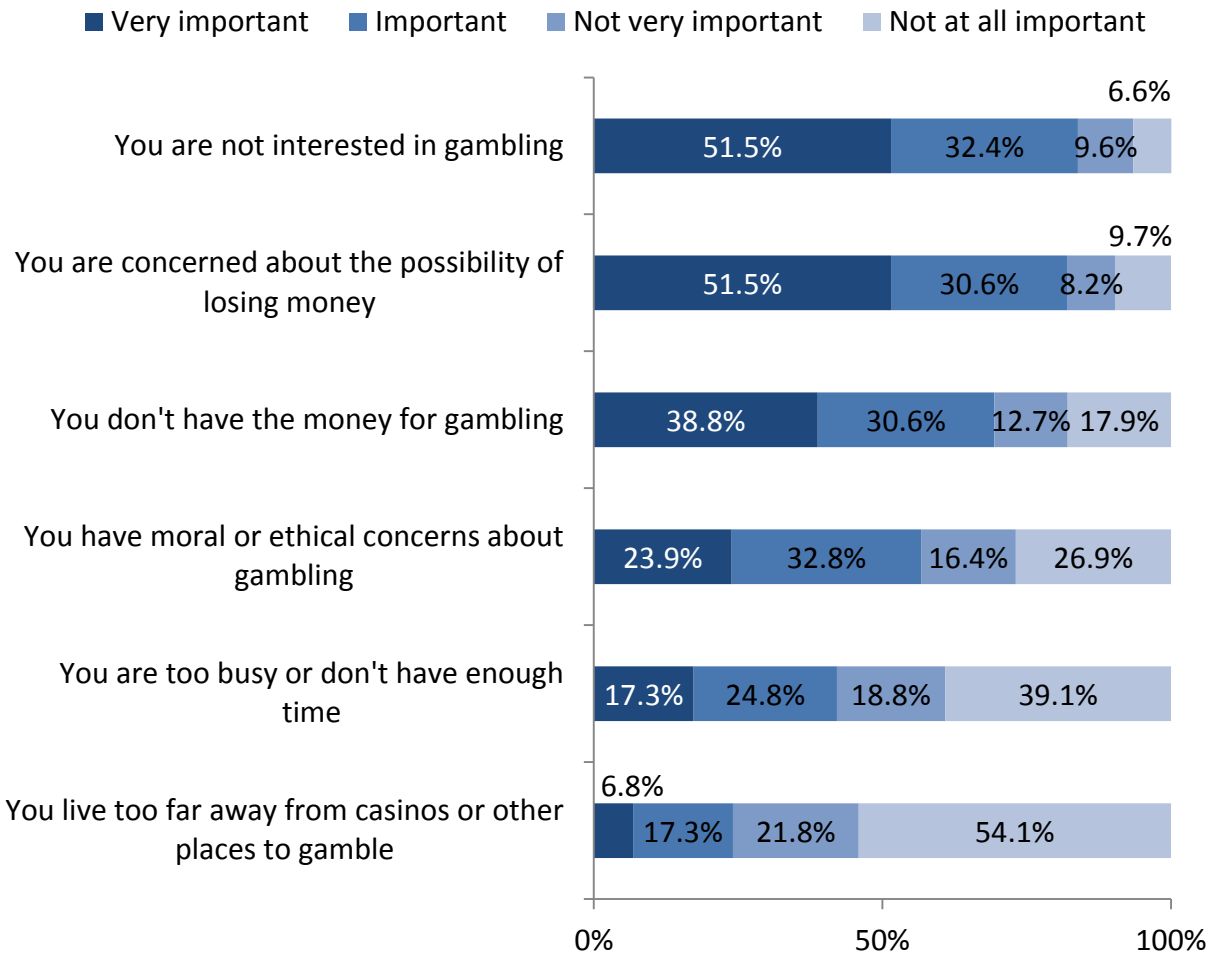


Figure 5. Reasons for not gambling among respondents who gambled once per year or never.



### ***Problem Gambling (DSM-IV-TR Criteria)***

The majority of UNI respondents did not meet any of the ten DSM-IV-TR criteria for problem gambling. However, 10.6% of respondents met one or more criteria (Figure 6). Specifically, 8% were potential at-risk gamblers (score of 1 or 2), 1% were potential problem gamblers (score of 3 or 4), and 1% were potential pathological gamblers (score of 5 or higher).

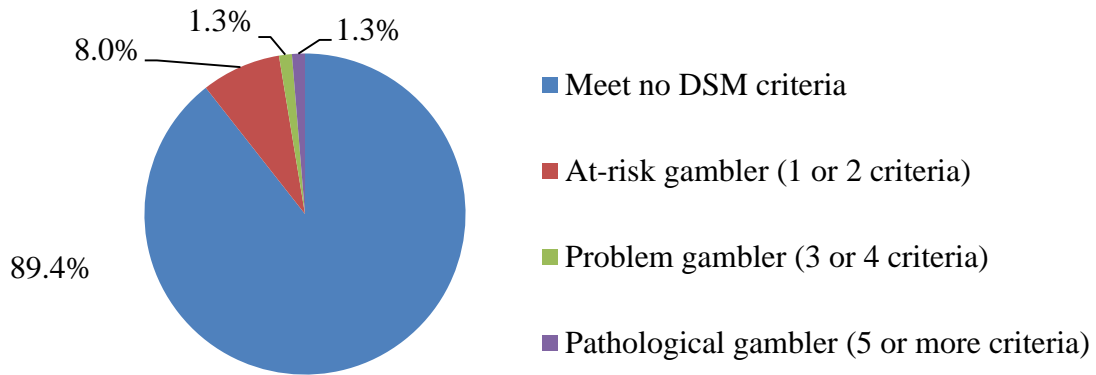


Figure 6. DSM-IV-TR criteria and classification of gambling severity.

Among UNI students who reported gambling at all in the past year, 1% (6 individuals) said they have been told by people important to them to cut back, stop, or control their gambling and 2% (10 individuals) said they have ever thought they might have a gambling problem. Among the 10 respondents who said they ever thought they might have a gambling problem, 8 reported ever talking about that gambling problem with a friend, 6 with a parent, 6 with another family member, and 4 with a counselor.

Of the 6 respondents who had been told by someone else to cut back on their gambling, all met three or more DSM-IV-TR criteria, indicating a possible diagnosis of problem or pathological gambling. Of the 10 respondents who said they thought they might have a gambling problem, all met at least one of the DSM-IV-TR criteria (six met three or more criteria and four met one or two criteria).

Among UNI students who reported gambling at all in the past year, 6% said they usually gamble alone, 23% said they always or often drink alcohol while gambling, and 10% said they have gambled instead of doing their homework. Only 5% of those who reported gambling in the past year said they had ever gambled instead of studying for a test, and only 2% said they had ever gambled instead of attending class.

### Norms and Stigma

On average, UNI respondents said that 34% of their male friends gamble more than a few times per year but that only 17% of their female friends gamble with that regularity (Table 2). When asked about the gambling habits of male and female college students, UNI respondents said they thought that males probably gamble more frequently, spend more money per year, and lose more money per year than their female counterparts. At least one-half of all UNI respondents said they think the average male gambles at least once per month (56%), spends more than \$100 per year on gambling (53%), and loses more than \$50 per year on gambling (67%). On the other hand, at least one-half of UNI respondents said they think the average female college student gambles less than once per month (64%), spends \$100 or less per year on gambling (57%), and loses \$100 or less per year on gambling (59%).

Table 2. Perceptions of gambling behavior among college-age males and females

College males...	College females...
34.4% gamble more than a few times per year	17.3% gamble more than a few times per year
Probably spend more than \$100 per year on gambling	Probably spend less than \$100 per year on gambling
Probably lose more than \$50 per year on gambling	Probably lose less than \$100 per year on gambling

### Treatment

Among all UNI respondents, 10% said they have ever been treated for an addiction or other mental health problem. Of these, 25% rated that treatment as *excellent* and 48% as *good*. Only one respondent (<1% of the sample) said they had ever been treated by a professional for a gambling problem and that one respondent rated the treatment they received as *fair* (response options were *excellent*, *good*, *fair*, or *poor*).

Most UNI respondents were not able to recall even one addiction or gambling treatment service or resource in their community or on campus, although awareness of addiction treatment services was more common than awareness of gambling treatment services or resources (Figure 7). A full 70% of students could not identify a single gambling treatment service or resource compared to 62% who could not identify an addiction treatment resource. Those students who did identify local gambling treatment services listed several types, including on-campus resources, quitlines/hotlines, and county resources. Addiction treatment services included on-campus resources, quitlines/hotlines, anonymous groups, and country resources. Even though very few respondents mentioned the hotline as a gambling treatment resource in the open-ended question, the majority of respondents answered *yes* when asked specifically if they had seen or heard of the gambling helpline 1-800-BETS-OFF (79%).

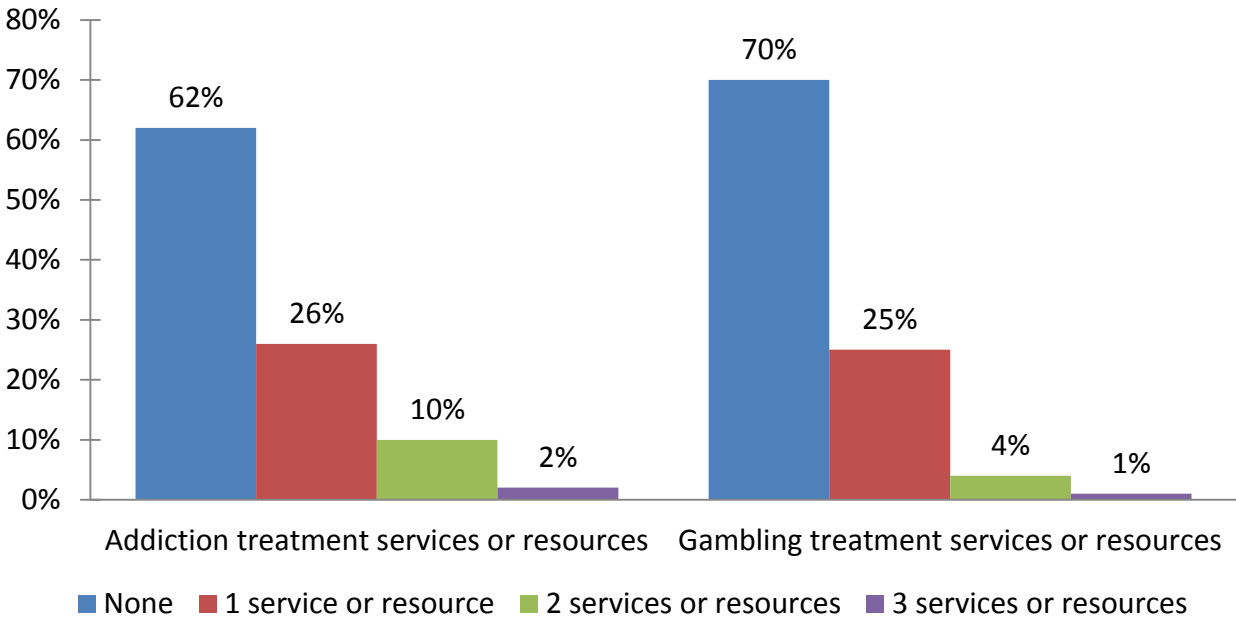


Figure 7. Awareness of addiction and gambling treatment services or resources in the community.

UNI students reported differing attitudes regarding addiction and gambling. One-half of UNI respondents (50%) said they *agree* or *strongly agree* that addiction is a serious problem among college students while only 19% said the same about gambling among college students. Gambling treatment seemed to face greater access barriers than addiction treatment on campus. Almost one in five (21%) students said they *agree* or *strongly agree* that there is no convenient place to receive gambling treatment on campus compared to 14% who said the same for addiction treatment. Additionally, 24% of respondents said that addiction treatment services are well publicized on campus; just 6% said that gambling services are well publicized on campus.

Respondents also reported that treatment probably works; only 7% of respondents said they think that addiction treatment does not work and 6% of students said they think that gambling treatment does not work. Regarding attitudes toward seeking treatment, 73% of respondents said they *disagreed* or *strongly disagreed* that seeing a counselor is a sign of personal weakness or inadequacy and 66% said they *disagreed* or *strongly disagreed* that it is best to hide the fact that one has visited a counselor or therapist. More than one-fourth (26%) said they *agreed* or *strongly agreed* that people will think less favorably of someone who goes to see a counselor or therapist. Nearly one-half (49%) of students reported that if they believed they had an addiction problem, their first thought would be to seek professional help and 43% said the same of a gambling problem.

While 69% said that if they were experiencing a serious addiction problem they would be able to find help in counseling, 64% said the same for finding counseling for a gambling problem. Most students also agreed that people with gambling problems and addiction problems are more likely to solve those problems with help from a professional than on their own (66% for gambling, 67% for addiction).

#### “Not Sure” Responses

A relatively large proportion of respondents selected *not sure* as a response option when asked about access to and perceptions of addiction and gambling treatment (Figure 8). The *not sure* responses per question ranged from 6% to 29%. The piece of information that was unknown for the largest percent of students (29%) was whether there is a convenient place on campus to receive gambling treatment. This was followed by whether gambling is a serious problem among college students (28%) and whether there is a convenient place on campus to receive addiction treatment (23%). The proportion of *not sure* responses was lowest for items related to personal opinions such as whether seeking counseling is a sign of personal weakness (6%).

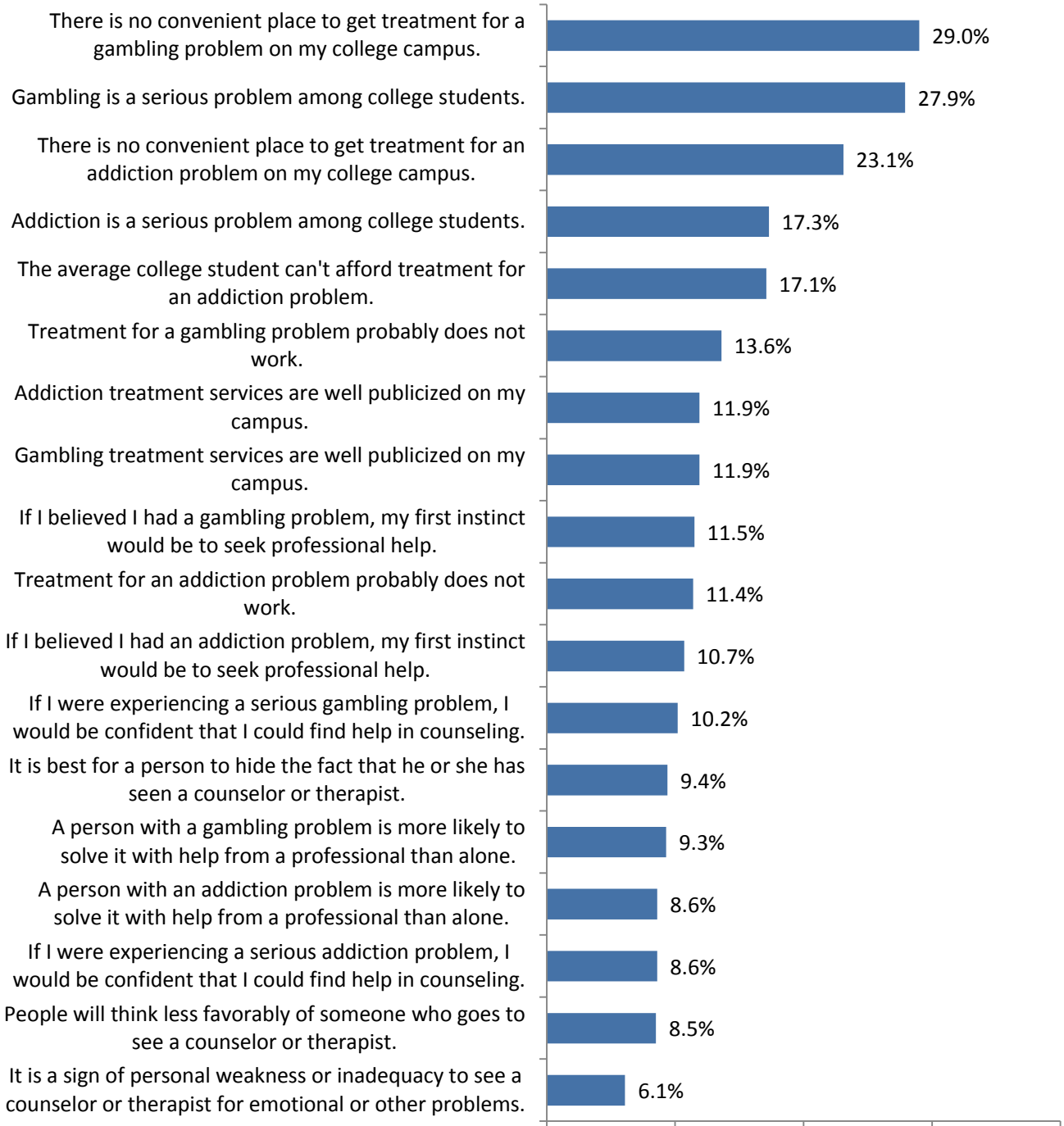


Figure 8. *Not sure* responses for items regarding knowledge and attitudes about addiction and gambling treatment.

### Gambling Among Friends or Family

Among all UNI respondents, reports of gambling problems among family or friends were not uncommon. Approximately one in ten respondents (11%) said that *a friend or other important person* had a gambling problem, 4% said their *father*, 2% said their *brother or sister*, 2% said their *mother*, 1% said their *spouse or partner*, and 18% said *another relative* had a gambling problem. Among those respondents who reported gambling problems among family or friends, 8% (n = 15 individuals) said that person was treated for their gambling problem; most of those 15 respondents (n = 11) said the treatment was either *helpful* or *very helpful*.

### Differences Between Gamblers and Non-Gamblers

#### Demographic Characteristics

The UNI respondent sample was divided into two groups based on gambling behavior in the past year (*any gambling* in the past year and *no gambling* in the past year). Between-group comparisons using crosstabulations and Chi-square statistics showed statistically significant differences regarding gender, monthly disposable income, status in school, housing, and cohabitation (Table 3).

Table 3. Demographic characteristics of respondents who gambled in past year and who did not.

	Any gambling in past year (n = 487)		No gambling in past year (n = 222)	
	n	%	n	%
Gender*				
Female	253	56.3%	114	69.1%
Male	195	43.4%	51	30.9%
Transgender	1	0.2%	0	--
Race/Ethnicity (responding <i>yes</i> )				
Hispanic/Latino	10	2.2%	5	3.0%
White	411	84.4%	149	67.1%
Black or African American	1	0.2%	3	1.4%
Asian	7	1.4%	2	0.9%
Native Hawaiian or Other Pacific Islander	0	--	0	--
American Indian or Alaska Native	2	0.4%	2	0.9%
Other	6	1.2%	3	1.4%
Two or More Races	17	3.5%	4	1.8%
Prefer not to answer	43	8.8%	59	26.6%
International student	4	0.9%	3	1.8%
Marital status				
Single, never married	409	90.9%	157	94.6%
Married	22	4.9%	3	1.8%
Divorced	7	1.6%	3	1.8%
Widowed	0	--	0	--
Separated	1	0.2%	0	--
Domestic partnership (unmarried couple)	10	2.2%	2	1.2%

Table 3. Demographic characteristics of respondents who gambled in past year and who did not (continued)

	Any gambling in past year (n = 487)		No gambling in past year (n = 222)	
	n	%	n	%
Currently employed for wages	313	69.6%	109	66.1%
Monthly disposable income*				
Less than \$50	111	24.7%	55	33.3%
\$50 to less than \$100	148	32.9%	48	29.1%
\$100 to less than \$250	88	19.6%	22	13.3%
\$250 to less than \$500	37	8.2%	10	6.1%
More than \$500	19	4.2%	2	1.2%
Not sure	34	7.6%	20	12.1%
Status in school**				
1 <sup>st</sup> year undergraduate	47	10.4%	37	22.4%
2 <sup>nd</sup> year undergraduate	59	13.1%	37	22.4%
3 <sup>rd</sup> year undergraduate	146	32.4%	48	29.1%
4 <sup>th</sup> year undergraduate	153	34.0%	33	20.0%
5 <sup>th</sup> year or higher undergraduate	42	9.3%	7	4.2%
Other	2	0.4%	1	0.6%
Extracurricular involvement				
Social fraternity or sorority	37	7.6%	10	4.5%
Student organization	237	48.7%	95	42.8%
Club or intramural sports	140	28.7%	46	20.7%
NCAA sports	13	2.7%	8	3.6%
Other	45	9.2%	25	11.3%
Housing/Living situation**				
On campus	155	34.4%	102	61.8%
Off campus apartment or house	265	58.9%	52	31.5%
Fraternity or sorority house	6	1.3%	3	1.8%
In the home of parent or guardian	21	4.7%	7	4.2%
Other	3	0.7%	0	--
Cohabitation**				
Alone	49	10.9%	28	17.0%
With friends or acquaintances	309	68.8%	110	66.7%
With a significant other	50	11.1%	4	2.4%
With parent or guardian	21	4.7%	9	5.5%
Other	19	4.2%	13	7.9%
Payment for majority of college costs				
Primarily parents	86	19.2%	33	20.0%
Primarily self	58	12.9%	16	9.7%
Primarily student loans or grants	131	29.2%	47	28.5%
Primarily scholarships	34	7.6%	19	11.5%
Combination of the above	136	30.3%	49	29.7%
Don't know/Not sure	1	0.2%	0	--

\*  $p < 0.05$

\*\*  $p < 0.01$

### ***Problem Gambling (DSM-IV Criteria)***

Among respondents who reported gambling in the past year, the majority did not meet any of the ten DSM-IV criteria for problem gambling. This echoes findings from the entire sample presented previously in this report. However, 15% of respondents who had gambled in the past year met one or more criteria (Figure 9). Specifically, 12% were potential at-risk gamblers (score of 1 or 2), 2% were potential problem gamblers (score of 3 or 4), and 2% were potential pathological gamblers (score of 5 or higher).

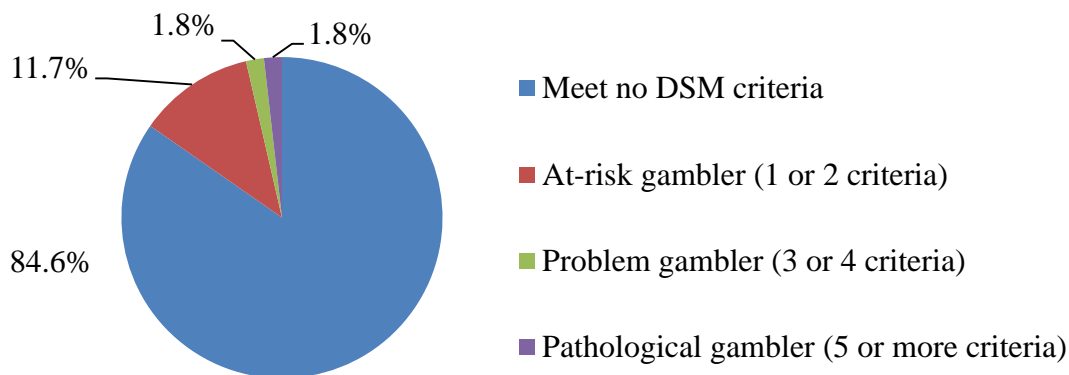


Figure 9. DSM-IV criteria and classification of gambling severity among gamblers.

### ***Norms, Stigma, and Treatment***

There were significant differences between the responses of gamblers and non-gamblers regarding perceived gambling behavior among males and females. Gamblers said that 38% of their male friends gambled more than a few times per year. Non-gamblers, however, reported that 26% their male friends gambled more than a few times per year, significantly less than gamblers ( $p \leq 0.05$ ). Gamblers also reported higher frequencies of average male gambling than non-gamblers ( $p \leq 0.05$ ). More than half of non-gamblers (54%) reported that the average male college student gambles at least once per month, while almost two-thirds of gamblers (65%) said the same.

Along similar lines, gamblers had higher estimates of money spent per year on gambling by the average male ( $p \leq 0.01$ ) and female ( $p \leq 0.01$ ) college student than non-gamblers. Thirty-eight percent of non-gamblers reported that the average male college student spends less than \$100 per year on gambling while 30.2% of gamblers reported the same. In addition, 58% of non-gamblers reported that the average female college student spends less than \$100 per year on gambling; 65% of gamblers reported the same.



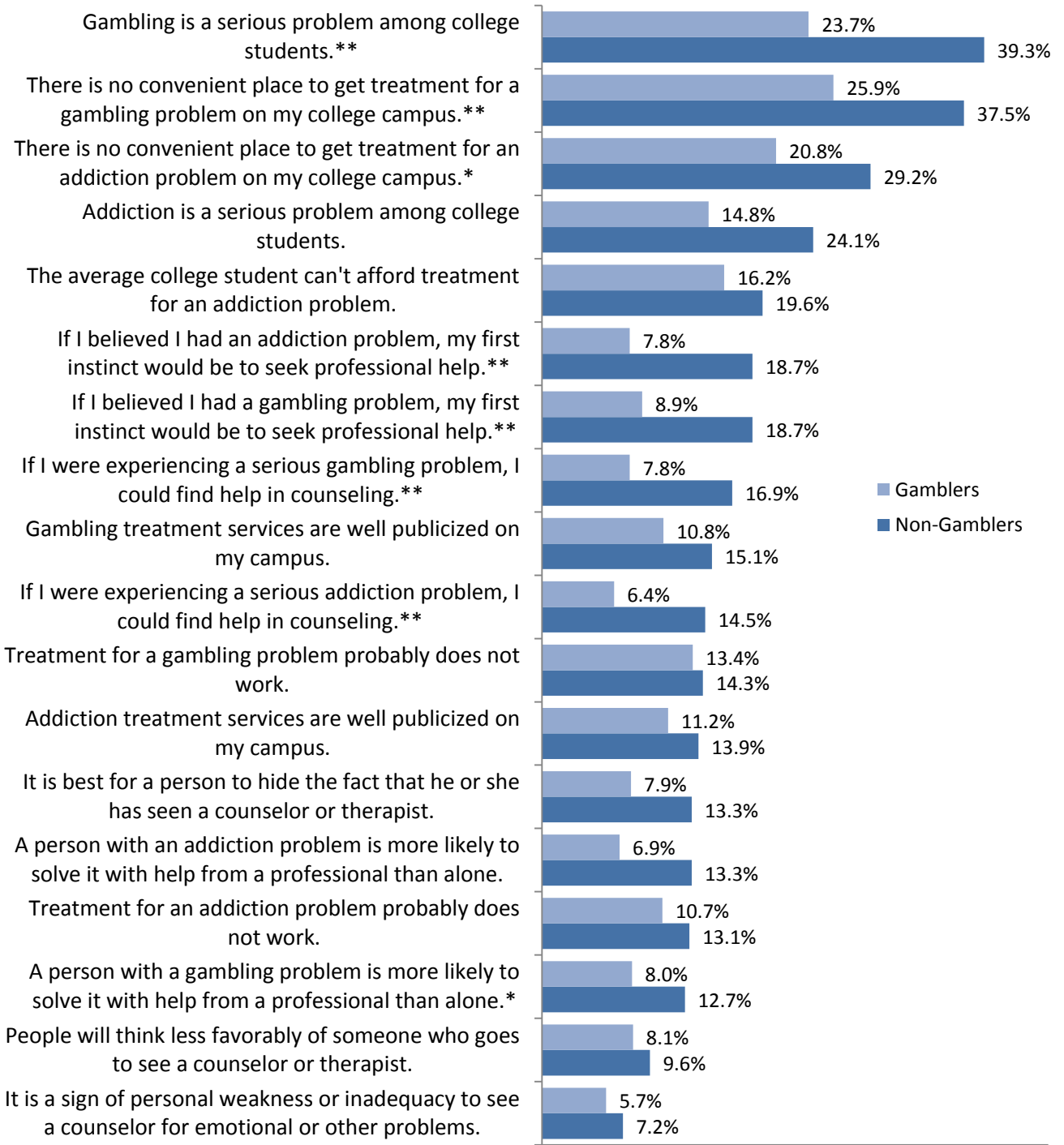
Gamblers and non-gamblers have differing attitudes towards addiction and gambling treatment. More than one in four gamblers (26%) said they *agree* or *strongly agree* that there is no convenient place to get gambling treatment on their campus and almost one in five gamblers (18%) said the same for addiction treatment services on their campus. Almost one in six non-gamblers (16%) said that there is no convenient place to get gambling treatment on their campus and 12% said the same for addiction treatment services. The differences between gamblers and non-gamblers were significant regarding the convenience of both gambling treatment ( $p \leq 0.01$ ) and addiction treatment ( $p \leq 0.05$ ). Gamblers (22.4%) were more likely than non-gamblers (18%) to *agree* or *strongly agree* that gambling is a serious problem on campus ( $p \leq 0.01$ ).

Gamblers (83%) were more likely than non-gamblers (77%) to *agree* or *strongly agree* that they would find help in counseling if they had an addiction problem ( $p \leq 0.01$ ). Gamblers (78%) were also more likely than non-gamblers (62%) to *agree* or *strongly agree* that they would find help in counseling if they had a gambling problem ( $p \leq 0.01$ ).

In addition, gamblers (58%) were more likely than non-gamblers (51%) to *agree* or *strongly agree* that if they were suffering from an addiction problem their first thought would be to seek professional help ( $p \leq 0.01$ ). Gamblers (50%) were also more likely than non-gamblers (44%) to *agree* or *strongly agree* that if they were suffering from a gambling problem their first instinct would be to seek professional help ( $p \leq 0.01$ ).

#### “Not Sure” Responses

As described in the results of the whole sample, a large proportion of students were *not sure* about access to and perceptions of addiction and gambling treatment (Figure 10). When students who reported gambling in the past year were compared with students who had not gambled in the past year, several significant differences emerged between the two groups. In general, a smaller proportion of students who had gambled in the past year were *not sure* about these items than students who had not gambled. However, the two areas in which both groups were least sure were whether gambling is a serious problem among college students and whether there is a convenient place to get treatment for a gambling problem on campus.

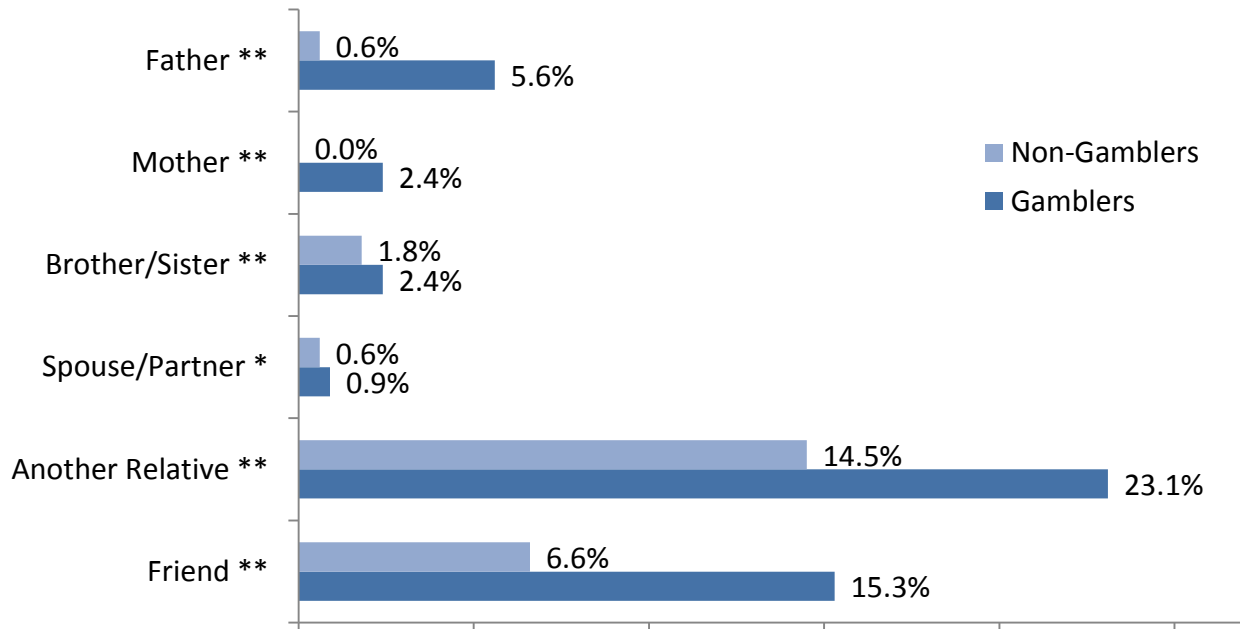


Note. \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$

Figure 10. Comparison of *not sure* responses between respondents who have gambled and those who have not.

### *Gambling Among Family and Friends*

Gamblers were significantly more likely to report that someone in their life has (or had) a gambling problem (Figure 11). Across all categories, respondents who had gambled in the past year reported higher rates of gambling problems than their non-gambling counterparts among their fathers, mothers, brothers or sisters, spouse or partner, other relatives, and friends.



*Note.* \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$

Figure 11. Gambling problem frequency reported by respondents who have gambled and those who have not.

There was no significant difference between respondents who have gambled and those who have not with regard to the perceived quality of treatment of the closest person in their lives who has (or had) a gambling problem.

## Differences Between Males and Females

### Types of Gambling

Among male UNI respondents, 79% reported engaging in at least one of the types of gambling including in the questionnaire at some point in the last year. Figure 12 shows the proportion of male respondents that reported engaging in each type of gambling. The most frequently reported types of gambling for males were games of personal skill (46%) and card games with family or friends (42%). Among female UNI respondents, 69% reported engaging in at least one of the types of gambling including in the questionnaire. Figure 13 shows the proportion of female respondents that reported engaging in each type of gambling. The most frequently reported types of gambling for females were card games with family or friends (38%) and scratch tickets or pull tabs (36%).

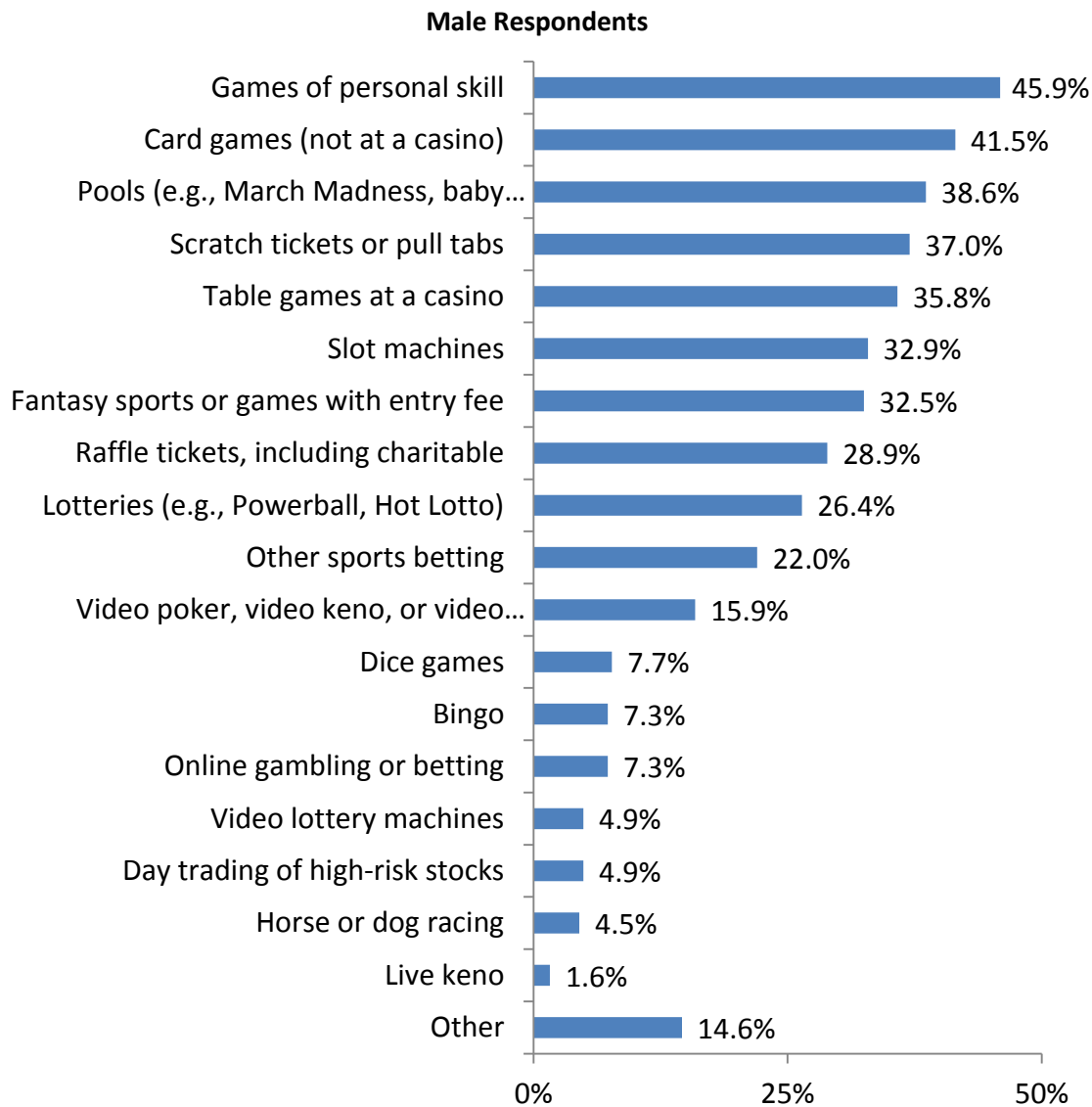


Figure 12. Types of gambling reported by male UNI students within the past year.

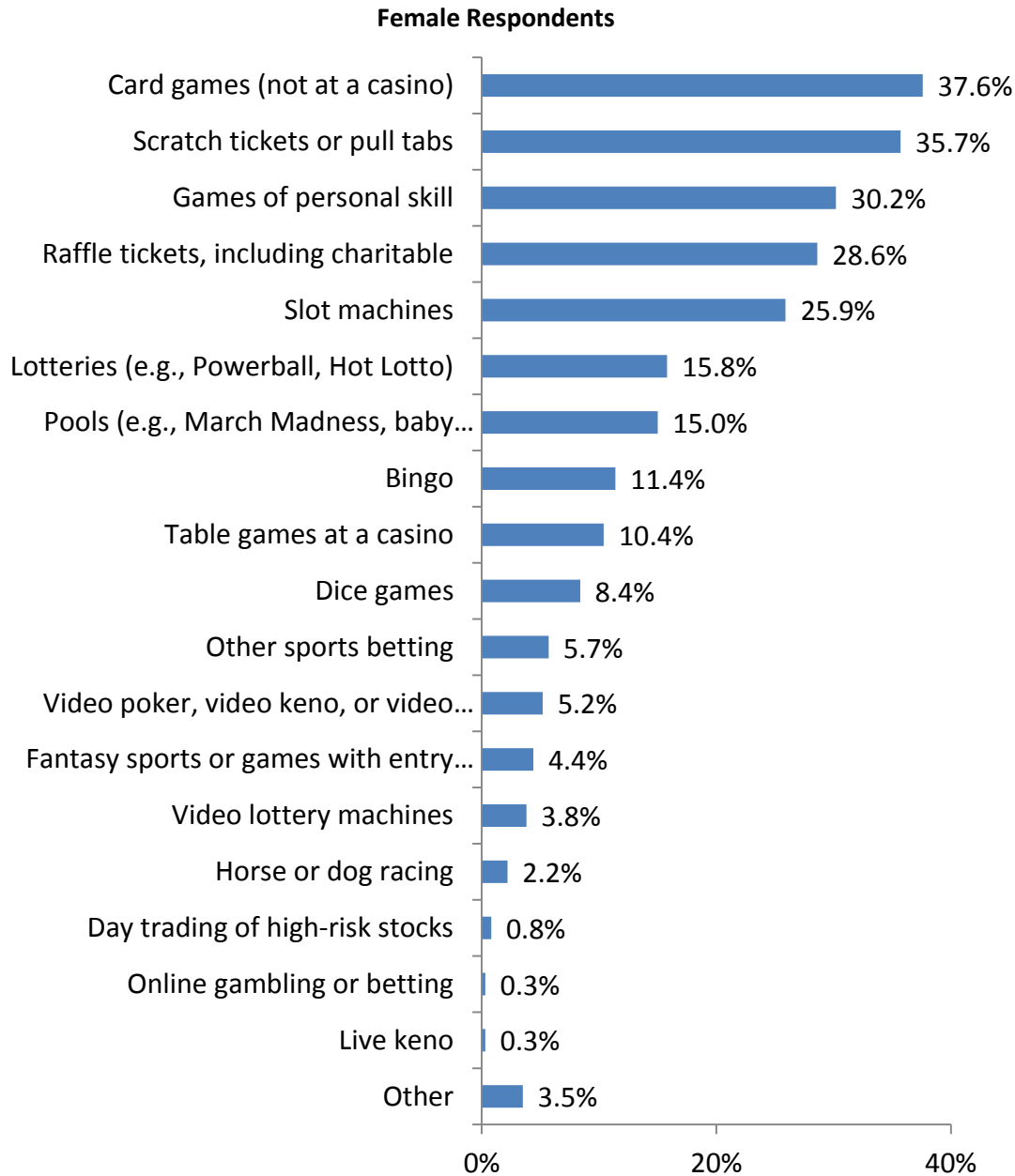


Figure 13. Types of gambling reported by female UNI students within the past year.

A larger proportion of males than females reported engaging in nearly all forms of gambling over the past year. Statistically significant differences between males and females were apparent in about one-half of the gambling types included in the questionnaire (Table 4). For all but one of these types of gambling (dice games), a larger proportion of males than females reported taking part.

Table 4. Types of gambling with statistically significant differences in participation rates by gender

	Males		Females
Games of personal skill	45.9%	←	30.2%
Pools (e.g. March Madness, baby due dates)	38.6%	←	15.0%
Table games at a casino	35.8%	←	10.4%
Fantasy sports	32.5%	←	4.4%
Lotteries	26.4%	←	15.8%
Other sports betting	22.0%	←	5.7%
Video poker, video keno, or video blackjack	15.9%	←	5.2%
Dice games	7.7%	→	8.4%
Online gambling or betting	7.3%	←	0.3%
Day trading of high-risk stocks	4.9%	←	0.8%
Other types of gambling not listed here	14.6%	←	3.5%

Note. All significant at the  $p \leq 0.01$  level

Note. Non-significant gambling activities include Horse or dog racing, video lottery machines, fantasy sports or games with entry fee, bingo, slot machines, raffle tickets, scratch tickets or pull tabs, and card games (not at a casino).

### Gambling Frequency

Among students who reported gambling in the past year, females said they gambled less frequently than did males (Figure 14). Just 13% of females said they gambled once per month or more compared to 38% of males.

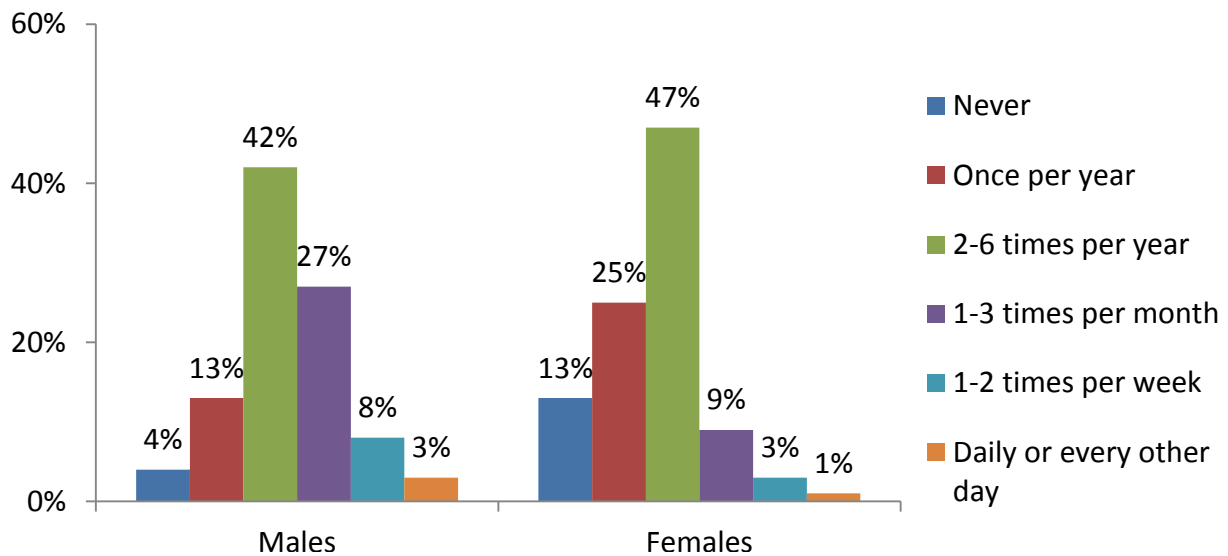


Figure 14. Gambling frequency among male and female respondents who reported gambling in the past year.

### Money Spent, Won, and Lost While Gambling

Among male respondents who reported gambling in the past year, 67% said they think they spend \$25 or more on gambling over the course of a year. Over one-half of males (54%) who reported gambling in the past year said the largest amount they had ever gambled with was greater than \$25. Among females, 60% said they think they spend less than \$25 on gambling over the course of a year. Three-fourths of female students said that the largest amount of money they had ever gambled with was \$25 or less.

Table 5. Money spent on gambling over the course of year with statistically significant differences by gender

	Males		Females
Less than \$25	31.8%	→	60.1%
\$25 to \$50	21.5%	←	17.8%
\$101 to \$200	9.2%	←	3.6%
\$201 to \$300	7.2%	←	1.2%
\$301 to \$500	8.7%	←	1.2%
More than \$2,000	2.1%	←	0.4%

Note. All significant at the  $p \leq 0.05$  level

### Problem Gambling (DSM-IV Criteria)

Statistically significant differences were also found between males and females with regard to potential problem or pathological gambling, as indicated by DSM-IV criteria (Figure 15; Pearson chi-square  $p < 0.001$ ). While just 6% of females met any of the DSM-IV criteria, nearly 19% of males met one or more of the criteria. Among males, 13% could be classified as at-risk gamblers (score of 1 or 2), 2% as potential problem gamblers (score of 3 or 4), and 3% as potential pathological gamblers (score of 5 or higher).

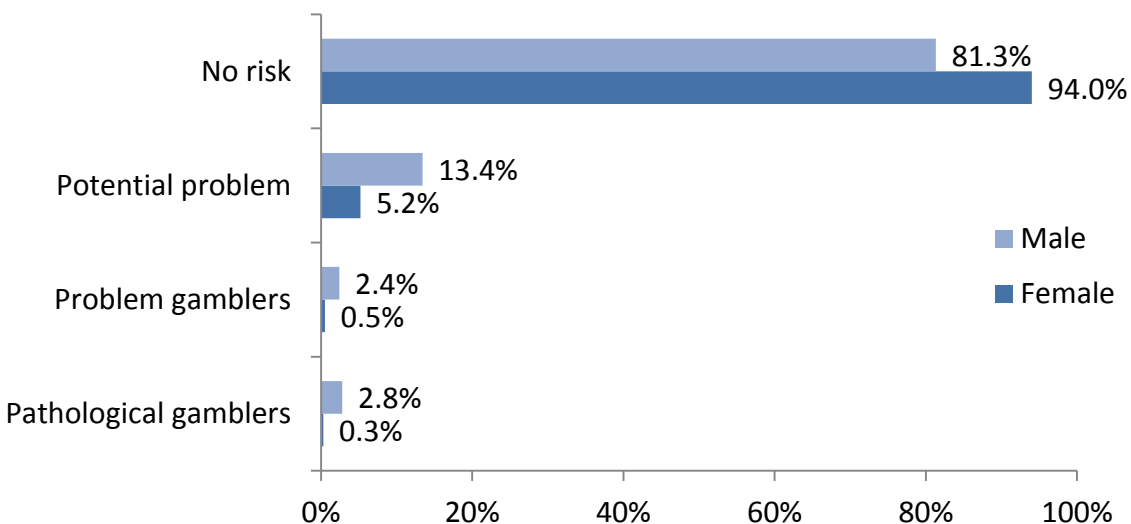


Figure 15. DSM-IV criteria and classification of gambling severity between males and females.

### Norms, Stigma, and Treatment

There were statistically significant differences between the responses of males and females related to attitudes toward addiction, gambling, and treatment. Female respondents (60%) were more likely than male respondents (53%) to *agree* or *strongly agree* that addiction is a serious problem among college students ( $p \leq 0.01$ ). Female respondents (23%) were also more likely than male respondents (18%) to *agree* or *strongly agree* that gambling is a serious problem among college students ( $p \leq 0.01$ ).

Female respondents (59%) were more likely than male respondents (50%) to *agree* or *strongly agree* that if they believed they had a gambling problem their first thought would be to seek professional help ( $p \leq 0.05$ ). Male respondents (15%) were more likely than female respondents (6%) to *agree* or *strongly agree* that seeing a counselor is a sign of personal weakness or inadequacy ( $p \leq 0.01$ ). Male respondents (39%) were also more likely than female respondents (24%) to *agree* or *strongly agree* that other people will think less favorably of someone who goes to see a counselor or therapist ( $p \leq 0.01$ ).

Differences between males and females related to gambling and gambling treatment among friends and family were not statistically significant.

When perceptions about gambling behavior among males and females were compared to self-reports of gambling behavior in the two groups, differences emerged (Tables 6 and 7). Although the perception and self-report of gambling frequency was relatively close, larger differences were seen in the amounts of money spent on gambling, particularly among males. It was perceived that males probably spend more than \$100 per year on gambling and probably lose more than \$50 per year on gambling. Among all male respondents, however, most report spending less than \$100 per year on gambling and most report that the largest amount ever lost was \$50 or less. It was perceived that females probably spend less than \$100 per year on gambling and lose less than \$100 per year on gambling. Self-reports among all female respondents concur, although most reported spending less than \$50 per year and reported that the largest amount ever lost was \$25 or less.

Table 6. Comparison of perceptions and self-reports of gambling behavior among all college-age males

Perceptions of college males ...	Self-reports of college males ...
34.4% gamble more than a few times per year	35.8% gamble more than 2-3 times per year
Probably spend more than \$100 per year on gambling	Most spend less than \$100 per year on gambling
Probably lose more than \$50 per year on gambling	Most report largest amount ever lost \$50 or less

Note: Self-report gambling frequency % based on proportion of the whole sample



Table 7. Comparison of perceptions and self-reports of gambling behavior among all college-age females

Perceptions of college females ...	Self-reports of college females ...
17.3% gamble more than a few times per year	12.3% gamble more than 2-3 times per year
Probably spend less than \$100 per year on gambling	Most spend less than \$50 per year on gambling
Probably lose less than \$100 per year on gambling	Most report largest amount ever lost \$25 or less

Note: Self-report gambling frequency % based on proportion of the whole sample

## Summary

Most respondents to this pilot survey of college students had gambled in some way in the past year. However, prevalence rates of problem and pathological gambling were low. The motivation for gambling supported by the highest proportion of respondents was that gambling is a source of entertainment or fun. Respondents tended to have different perceptions of male gambling and female gambling, indicating that males probably gambled more and spent more money when gambling than females. Awareness of gambling treatment services and resources was rather low, and that was true for awareness of general addiction treatment services and resources as well. Family history of problem gambling was not uncommon among survey respondents.

Students who reported gambling in the past year differed from students who did not gamble in the past year on several demographic characteristics (most notably, gender). In addition, students who reported having gambled in the past year exhibited a greater confidence in their responses to attitude questions about stigma related to treatment-seeking behavior and services/resources available for addiction and gambling problems.

Males reported gambling at a higher rate than females in general and with regard to specific types of gambling. In addition, a higher proportion of males than females met one or more criteria for problem gambling. Females, however, were more likely than males to report believing that gambling is a serious problem among college students.

Pilot study prevalence rates of past-year gambling on specific types of activities were compared with rates of past-year gambling among the general population in Iowa (Table 8). The Iowa adult prevalence rates were found in a state-specific study conducted in 2011 by the Center for Social and Behavioral Research (CSBR) at the University of Northern Iowa. The study examined the prevalence of gambling in Iowa in the general population (Gonnerman & Lutz, 2011).

Respondents in the UNI sample differed quite markedly from the general population with regard to past-year gambling prevalence of several specific activities. In most cases, the differences between the overall UNI respondent prevalence and Iowa adult prevalence was driven by a much

higher prevalence among UNI male respondents. For example, the 2011 adult prevalence of past-year gambling on table games at a casino was 10%. Among all UNI respondents, the prevalence of past-year gambling on that activity was 20%. However, among females, the prevalence (10%) was very similar to the Iowa adult prevalence (just 0.4 percentage point difference). Among UNI males, though, the prevalence of past year gambling on casino table games was 36% (a 26 percentage point difference).

Table 8. Prevalence of past year gambling among UNI student respondents and the general population of Iowa (ages 18 and older).

	UNI - Total	UNI - Male	UNI - Female	Iowa adults
Slot machines	27.1	<b>32.9</b>	25.9	25.0
Table games at a casino	<b>19.6</b>	<b>35.8</b>	10.4	10.0
Video poker, video keno, or video blackjack	9.2	<b>15.9</b>	5.2	7.0
Dice games	<b>8.3</b>	<b>7.7</b>	<b>8.4</b>	4.0
Scratch tickets or pull tabs	<b>34.4</b>	<b>37.0</b>	<b>35.7</b>	27.0
Lotteries	<b>19.0</b>	<b>26.4</b>	<b>15.8</b>	38.0
Horse racing or dog racing	3.4	4.5	2.2	3.0
Bingo	9.0	7.3	<b>11.4</b>	6.0
Card games with friends, family, or others but not at a casino	<b>36.2</b>	<b>41.5</b>	<b>37.6</b>	16.0
Games of personal skill	<b>34.4</b>	<b>45.9</b>	<b>30.2</b>	9.0
Fantasy sports leagues or games with an entry fee to play	<b>15.4</b>	<b>32.5</b>	4.4	6.0
Pools such as March Madness or baby due dates	<b>23.0</b>	<b>38.6</b>	15.0	16.0
Other sports betting on professional, college, and amateur games or events	<b>12.3</b>	<b>22.0</b>	5.7	5.0
Raffle tickets including those in support of a charitable cause	<b>26.0</b>	<b>28.9</b>	<b>28.6</b>	42.0
Online gambling or betting using the Internet	3.7	<b>7.3</b>	0.3	2.0
Live keno	1.1	1.6	0.3	1.0
Video lottery machines	4.4	<b>4.9</b>	3.8	3.0
Day trading of high-risk trading of stocks, commodities, or futures	2.5	4.9	<b>0.8</b>	4.0
Betting or gambling using some other game, activity, or event we have not listed	<b>7.8</b>	<b>14.6</b>	3.5	3.0

# C. Focus Groups

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## Methods

Utilizing a “mixed methods” approach, a qualitative component was included in the pilot study to allow more in-depth exploration of personal experiences, reflections and context which allow for a more robust understanding of the various dimensions of the topic and better evaluation of findings. Qualitative data are not intended to be generalized to larger populations. Focus groups were conducted to gain a deeper understanding of knowledge, attitudes, and behaviors of UNI college students related to gambling and gambling treatment. Two focus groups were conducted with UNI students; one group was conducted with males and one with females to create gender homogeneity within the group setting. Homogeneity is important to the environment of focus groups because participants must feel comfortable communicating their view points, which is less likely to occur if participants do not share commonalities (Redmond & Curtis, 2009). Focus groups were segmented by gender, to shadow research that suggests significant differences between males and females regarding gambling knowledge, attitudes, and behaviors (Shead, et al., 2012).

Participants were recruited on campus at high-traffic locations (e.g., the student union) and times of day (e.g., around the lunch hour) over several days. Informational fliers were handed out to students in these locations. The flier contained an email address for students to contact if they were interested in participating. The groups were held in separate, back-to-back sessions on a weeknight at a convenient location on campus.

The focus group interview guide consisted of 16 questions and 30 probes (Appendix C). The guide included questions about overall gambling knowledge, gambling behavior, perceptions of problem gambling, and barriers to and effectiveness of gambling treatment. Participants were also asked to fill out a demographic questionnaire that asked their age, gender, race, employment status and hours worked per week, current student status, campus involvement, and living arrangement (Appendix D). Focus groups were moderated by a trained focus group facilitator and were observed by a note-taker who documented the conversations and nonverbal communication. Each participant received a \$15 Target gift card for their participation. This research project was approved by the UNI’s Institutional Review Board, and written informed consent was obtained from all participants.

Focus groups were audio-recorded and transcribed. Transcripts and field notes from the sessions were used for theme development. Theme development was conducted through an open-coding method, looking for themes that had been discovered in previous research and the pilot survey, and by identifying other emerging themes.

## Results

In all, 10 students participated in the focus groups (six in the male group and four in the female group). The four female participants had a mean age of 19.8 years and all were second-year students who lived on campus. All female participants were involved in some sort of campus activity and were employed an average of 18.5 hours per week. The six male participants had a mean age of 19.5, five lived on campus and one lived off campus; three participants were involved in campus activities and three were not involved in any campus activities. Two participants were employed: these two worked part-time and worked an average of 16 hours per week. Although males and females differed on general knowledge about gambling, there were areas of similarity in their responses as well. The following themes were identified from the focus groups.

### Defining Gambling

Respondents were asked, “When you think about gambling, what comes to mind?” This question was asked to gauge the multiplicity of definitions of gambling. Probes were also asked to address specific activities (bingo, baby due date pools, and sports betting) and whether participants define these activities as gambling.

### Females

Two female participants responded to this question with specific gambling activities, such as, “poker” and “Blackjack.” One participant stated a “casino” and one person said being “broke,” which was received with nonverbal head nods from all the participants, declaring agreement to the response. All females agreed that bingo and baby pools were not gambling with either a verbal or non-verbal cue (head nod or shaking of head), but said that sports betting did classify as gambling. The female focus group participants stated (both verbally and nonverbally) that they believed the amount of money determines whether an activity is defined as gambling or not.

### Males

Four male participants stated specific gambling activities when asked to define gambling. Their answers included “rolling dice,” “cards,” “strip poker,” “slot machines,” and “Blackjack.” Other answers included “casinos,” and “money.” All males agreed that bingo, office pools, and sports betting are gambling activities.

### Gambling Behavior

Questions encompassing gambling behavior and perceptions of college students gambling behavior included:

“How common would you say gambling is among college students?”

“What types of gambling are more or less common among college students?”  
“What do you think are the main reasons people gambling?” and  
“Would you say that gambling activities are increasing, decreasing, or not changing much among college students?”

### Females

Regarding how common gambling is among college students, two female participants said it was fairly common. The other two female participants said it was not common at all, responding that they do not have any friends who gamble with the exception of sports betting. Female participants said they believe that the percentage of college students who have ever gambled is between “30%” to “80%,” and that “a third” to “40%” gamble regularly. Female participants thought that poker and “cheaper” (i.e., less expensive) gambling activities are the most common types among college students.

Female participants said that, overall, males gamble more than females. When the facilitator asked whether gambling activities vary between males and females, the female focus group participants agreed that gambling activities are different for males than for females. Participants stated that men are more likely to gamble on cards and sports betting, whereas women are more likely to participate in slots and raffles.

Female participants said that the main reasons people gamble are “luck,” “winning money,” and “social activity.” They stated the reasons why people gamble were similar for both males and females.

### Males

Similar to the female focus group, male participants were divided in their perceptions of how common gambling is among college students. Some stated that gambling is very common and others that it is not common at all. The array of responses included:

*(Male): Pretty common.*

*(Male): They usually try to save their money. They don't really gamble on anything. Maybe a sport or two.*

*(Male): I think it's stereotypical but I don't really know anybody who consistently gambles.*

Male participants stated that the percentage of college students who have ever gambled was between “65%” to “90%,” and that “5%” to “40%” gamble regularly. They reported that poker, Blackjack, rolling dice, and sports betting are likely the most common gambling activities among college students.

Male focus group participants also said they believe that males gamble more than females. Participants indicated that “men gamble a lot more than women,” citing gender differences in

spending habits as the reason for increased gambling among males. The following responses reflect that theme:

(Male): *Women being smarter with their money and saving it [that's why they gamble less]*

(Male): *I would assume that men tend to gamble more often and also gamble more money.*

Male participants said that men and women also engage in different gambling activities, stating that men are more likely to bet on sports games and table games, whereas women are more likely to participate in slot games.

The most commonly cited motivation for gambling emphasized the social aspect of gambling, with other answers including enjoyment and fun.

## **Gambling Consequences**

Perceptions of gambling consequences were addressed by asking the question “What are some potential positive and negative consequences of gambling?” including probes

“How much of a problem would these negative consequences be?”

“Are there any types of gambling that you think are more risky than others?” and

“How often or under what circumstances do the rewards of gambling outweigh the risks?”

## **Females**

Regarding positive consequences of gambling, female participants' responses were similar to those for motivations to gamble, including “social activity” and “winning money.” However, while addressing negative consequences, they said the biggest consequence was losing money, stating:

(Female): *Losing money, college student do not have a lot of money. [which was agreed upon by all members of focus group with the nonverbal of nodding their head yes.]*

When comparing the risk of games, female focus group participants said that games of skill (e.g., card games) were less risky than games of chance (e.g., slots).

Female participants stated that alcohol can be an added risk to gambling. Participants said that alcohol can increase gambling behavior, stating “getting drunk makes you gamble more,” which all other participants agreed with either with a verbal “yes” or nonverbal head nod, indicating yes.

## Males

Male participants also identified similar positive consequences as gambling motives, stating “the opportunity to be social,” gambling was “enjoyable,” and “opportunity to make money.” In contrast, males identified addiction, poor finances, and distance from friends and family as negative consequences to gambling. Male focus group participants believed that high stake games and poker are the most risky forms of gambling.

## Problem Gambling and Treatment

Perceptions of problem gambling and treatment are gauged by the questions

“Under what conditions might gambling become a problem?”

“If someone you knew had a gambling problem, how likely do you think it would be that you would be aware of that?”

“When you think about a gambling problem, do you think about it differently or the same as you think about drug and alcohol problems?”

“What ways do you think might work to prevent problem gambling among college students?”

“What kind of help is available for college students with a gambling problem?”

“How do you think problem gambling might be treated?”

“What barriers can you think of to someone seeking treatment for a gambling problem?” and

“How effective do you think gambling treatment would be for a student?”

## Females

There were mixed responses among female participants regarding awareness of problem gambling. Three females believed that you would be able to tell if someone had a gambling problem because they would ask for money or they would display signs of stress. However, one participant stated:

*(Female): People with addictions often keep them a secret. So it's hard to tell if they have a gambling problem. [This was agreed upon by all participants with a nonverbal of nodding their head.]*

Female participants also believed they would be aware of their friends gambling problem; however, how they would address the problem with their friends was split. Two participants said they would try to intervene by helping, talking to their friends and family, or research information. The two other participants stated intervention would depend on the situation, stating:

*(Female): It depends on how good of friends we were.*

Respondents discussed how money is a sensitive subject to talk with friends about, and that intervening in bad behavior can be difficult and can strain a friendship.

Female participants said that there is a difference between other addiction and problem/pathological gambling, but none of the participants could explain why it was different. A female participant said:

*(Female): I know it's different, but I don't know why.*

One participant stated that the reason other addictions and problem/pathological gambling are different is legality: gambling is legal whereas some drugs are not. Besides legality, respondents could not articulate why they thought other addictions and problem/pathological gambling were different.

Female participants said that education and awareness through a university student health center, seminars, or student organizations were the best outlets for prevention and treatment messages for problem gambling. The only form of help for problem gamblers that any participants were aware of was 1-800-BETS-OFF, which three of the four participants had heard of or seen in casinos, on billboards, or on commercials. Female participants have not heard of any help available on campus or in the community.

Regarding treatment, there was little consistency among the group as to how problem gamblers should be treated. Responses varied from raising awareness, monitoring behavior, and examining why the individual started gambling. Some participants said therapy is a good option for treatment. Two participants said that treatment would have to be different from that of other dependencies. However, no female participants could identify any form of treatment for problem gambling.

When asked about barriers to treatment, female focus group participants thought the main barriers to treatment would be stigma and pride, indicating:

*(Female): Society perceives them as social outcast. [All participants agreed with a head nod]*

*(Female): Pride was the main reason for people who did not seek treatment. [Everyone agreed with verbal "yes" or nonverbal head nod.]*

Two female participants said it is unlikely that problem gamblers would share their treatment process because of the stigma and because they would be scared people would look at them differently. However, all female participants said they would look well upon someone who was getting treatment.



## Males

Male focus group participants defined individuals who have a gambling problem as people who asked to borrow money, people who cash checks at a casino, who lie about how much money they are losing when gambling, or who constantly think about gambling. Male participants agreed that their awareness of a problem gambler would depend on their relationship with the person: a closer relationship with the problem gambler would be associated with heightened awareness of a gambling issue. All male participants said if they were aware that a friend had a gambling problem they would try to help. One participant stated that he had talked to a friend about a gambling problem in the past and mentioned 1-800-BETS-OFF as a method of help.

Participants in the male focus group also said that there is a difference between other addictions and problem/pathological gambling. Participants described these differences as:

*(Male): I feel it doesn't [uh] affect the person's health and wellness quite as much as if they did the two, say, alcohol or illegal drug.*

*(Male): I kind of thought like kind of like how he said that they're kind of addicted so it's kind of the same but like it doesn't have the health problems but still they're costing their own money.*

*(Male): I think that on the spectrum of addictions it's one of the lower ones. What people or someone might think differently about you couldn't be the same as if you were addicted to something much worse.*

Male participants said that, compared to other addictions, problem gambling is less severe issue because it does not affect one's physical health and wellness as much as other addictions. Male participants cited the monetary risk associated with gambling as a less severe consequence compared with the physical consequences of some other addictions.

Male focus group members also thought educating people about gambling before they engage in gambling activities would help prevent gambling problems. Throughout the conversation about problem gambling prevention, 1-800-BETS-OFF was mentioned two times, by two different participants. When the facilitator asked about respondents' familiarity with 1-800-BETS-OFF, all participants knew of the hotline. Male participants identified the health counselors in university student health clinics as an easily accessible, on-campus resource for problem gamblers. However, they knew of no community resources for problem gamblers.

Male focus group participants said that gambling treatment would be "similar" or "pretty similar" to other forms of addiction treatment. Male participants stated that people do not seek treatment because of the stigma associated with addiction. This theme was displayed in responses, such as:

*(Male): It would give them a negative look upon them instead of a positive one.*

(Male): *They wouldn't want their friend to know that they have a problem.*

Even though participants agreed that problem/pathological gamblers would feel stigmatized, they themselves said they would not judge people/friends/family who sought treatment. Male focus group members said “I wouldn't really judge them,” and “I'd be proud of them for going to get help,” showing their support for individuals who sought treatment.

## Summary

Overall, males demonstrated greater knowledge than females about every gambling issue, as evidenced by more comprehensive answers to questions about gambling and gambling treatment among college students. In contrast, female participants knew relatively little about gambling and gambling treatment, with some citing their unfamiliarity with the topic, lack of personal experience, or lack of family and friends who gamble. Participants in both focus groups identified differences between males and females in gambling participation and the gambling activities. Participants said that males are likely to gamble more than females. This finding is consistent with previous research that shows males are more likely to participate in gambling activities (Shead et al., 2012; Wong et al, 2012), which may account for greater overall knowledge about gambling and gambling treatment among male participants in this study.

All focus group members defined gambling by specific gambling activities such as Blackjack, poker, cards, slot machines, and rolling dice. Male focus group participants also defined gambling as all activities where something was wagered. However, female participants believed gambling was defined by the monetary value associated with the activity. The difference between the two definitions may also be associated with the differences in knowledge between female and male participants.

In addition, problem gambling was perceived by all participants as different from other addictions such as substance abuse, in part because gambling was not perceived to impact physical health and wellness as does substance abuse. However, research shows that decreased mental health, in particular, is a consequence of problem gambling (Petry & Wienstock, 2007; Quilty et al., 2011). One participant claimed she did not know *why* gambling addiction was different from other additions, but she knew it was.

Although participants expressed the feeling that problem gambling was different from other addictions, they had the opinion that treatment for problem gambling is likely similar to other addiction treatments. Participants indicated stigma may be the strongest barrier to treatment for problem gambling (i.e., they may feel a sense of shame if they shared their problem or sought treatment). These findings are consistent with research that suggests stigma is a barrier to gambling treatment (Cooper 2001; Evans & Delfabbro, 2005; Hodgins & el-Guebaly, 2000; Pulford et al., 2009; Rockloff & Scholfield, 2004; Tavares et al., 2002). However, focus group

participants also stated that they personally would not judge or look differently upon a person they knew who sought gambling treatment.

Little was known about treatment or access to treatment among the focus group participants. Only one form of treatment, specifically the 1-800-BETS-OFF hotline, was identified by participants. This qualitative study has some limitations. The sample of college students from a single comprehensive Midwestern university was very small and may differ from college students in other institutions or settings. Future research should examine responses of a wider variety of institutions and students.

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## D. Conclusions

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The findings of this pilot study echoed those of previous research related to gambling and gambling treatment among college students in Iowa. Important gaps are also evident in the knowledge base regarding certain aspects of the behavior in this population. Conducting pilot research using both quantitative and qualitative methods provided additional depth.

In our pilot study, as clearly shown in the literature, gambling prevalence and problem gambling prevalence is higher among males than among females. Some types of gambling are practiced at a higher rate among college students, particularly males, than in the general population. Gambling among college students is not uncommon – over two-thirds of this pilot study sample had gambled in the past year – but less than 3% of the sample was classified as a problem or pathological gambler. This is an indication that the majority of gambling practiced by college students is in all likelihood only a simple form of entertainment; the conclusion is further supported by the evidence that suggests college students are most motivated by the social aspects and entertainment value of gambling.

However, 3% does not result in a small number when extrapolated to the general population of college students in Iowa or the US. Many thousands of college students could be in need of appropriate treatment for problem gambling and even more students would benefit from problem gambling prevention messages. Knowledge and awareness of gambling and gambling treatment is low and social norms may be unrealistic, particularly social norms of male gambling behavior. Respondents in the pilot study had positive attitudes toward treatment-seeking behavior for addictions and for gambling, although only one individual actually had received gambling treatment; this disconnect may be due to the impact of social stigma as a barrier to treatment.

Problem gambling was perceived as different from substance addictions. The focus group participants in this pilot study noted that the difference was more intangible than tangible, although policy and physical health differences in the behaviors and consequences were clearly different. Multiple factors played a role in respondents' perspectives on problem gambling as an issue for college students, including their own gambling experiences, habits of friends and family, and moral/ethical concerns.

To gain a truly comprehensive understanding of gambling and gambling treatment among college students, the issue should be investigated from an interdisciplinary and multi-method perspective. Disciplines such as sociology, public policy, public health, psychology, and medicine can contribute important perspectives to the research on college gambling. Multi-site research that includes students from a variety of colleges and universities is necessary to examine whether and how particular aspects of gambling and gambling treatment differ across settings

and sub-populations of college students. Quantitative methodologies should include larger samples of college students across these varied settings and additional qualitative methods such as focus groups or in-depth interviews should also be included to provide greater contextual understanding of student experiences.

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# Appendices

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## Appendix A: DSM-IV-TR Criteria for Diagnosing Problem Gambling

Persistent and recurrent maladaptive gambling behavior as indicated by five (or more) of the following:

1. 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)
2. needs to gamble with increasing amounts of money in order to achieve the desired excitement
3. has repeated unsuccessful efforts to control, cut back, or stop gambling
4. is restless or irritable when attempting to cut down or stop gambling
5. gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g. feelings of helplessness, guilt, anxiety, depression)
6. after losing money gambling, often returns another day to get even (“chasing” one’s losses)
7. lies to family members, therapist, or others to conceal the extent of involvement with gambling
8. has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling
9. has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling
10. relies on others to provide money to relieve a desperate financial situation caused by gambling

## Appendix B: Survey Questionnaire and Item Frequencies

### 2013 College Gambling Survey (Online)

1. The following list includes activities that some people do for enjoyment, relaxation, or recreation. Indicate the number of times you have done each activity in the past 30 days, if at all.

	UNI		Kirkwood	
	Mean (SD)	Min/Max	Mean (SD)	Min/Max
a. Attended sporting events	1.45 (2.29)	0/15	1.40 (3.83)	0/30
b. Gone shopping	3.51 (3.07)	0/30	5.63 (6.22)	0/50
c. Gone to the movies, concerts or other entertainment events	1.66 (2.19)	0/30	1.89 (5.01)	0/60
d. Gone to casinos to gamble	0.38 (1.48)	0/21	0.16 (0.57)	0/5
e. Gambled on the Internet	0.23 (2.02)	0/40	0.11 (0.88)	0/10
f. Watched sporting events on TV	7.39 (10.75)	0/120	5.16 (7.51)	0/30
g. Played cards with friends and family	1.99 (2.99)	0/30	1.97 (4.21)	0/30
h. Played video or computer games	6.49 (9.74)	0/60	10.57 (16.92)	0/100
i. Played the lottery including numbers or scratch tickets	0.70 (2.74)	0/30	0.64 (2.08)	0/20
j. Played bingo for money	0.68 (0.93)	0/23	0.03 (0.20)	0/2
k. played free internet casino games such as blackjack, slots, poker	0.56 (2.71)	0/30	0.83 (3.19)	0/22

**Transition statement:** The next questions are about how often you may participate in a variety of activities that some people consider gambling.

2. Have you gambled on [type of gambling] in the past month?

(% responding *yes*)

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
a. Slot machines	78	11.6	11.0	12	7.3	6.6
b. Table games at a casino such as poker, roulette, craps, and blackjack	68	10.1	9.6	7	4.3	3.8
c. Video poker, video keno, or video blackjack	24	3.6	3.4	4	2.4	2.2
d. Dice games	27	4.0	3.8	5	3.0	2.7
e. Scratch tickets or pull tabs	106	15.8	15.0	24	14.6	13.2
f. Lotteries such as Powerball, Hot Lotto, Mega Millions, and daily numbers	48	7.2	6.8	22	13.4	12.1
g. Horse racing or dog racing	5	0.7	0.7	1	0.6	0.5
h. Bingo	23	3.4	3.2	10	6.1	5.5
i. Card games with friends, family, or others but not at a casino	157	23.4	22.1	38	23.2	20.9
j. Games of personal skill such as pool, bowling, video games, or playing basketball	177	26.4	25.0	53	32.3	29.1
k. Fantasy sports leagues or games where there is an entry fee to play	60	9.0	8.5	13	7.9	7.1
l. Pools such as March madness college basketball tournaments, Super Bowl winners, or baby due dates	130	19.5	18.3	30	18.3	16.5
m. Other sports betting on professional, college, and amateur games or events	34	5.1	4.8	9	5.5	4.9
n. Raffle tickets including those in support of a charitable cause	78	11.7	11.0	24	14.6	13.2
o. Online gambling or betting using the Internet	16	2.4	2.3	5	3.0	2.7
p. Live keno	3	0.5	0.4	164	100.0	90.1
q. Video lottery machines	15	2.3	2.1	2	1.2	1.1
r. Day trading of high-risk trading of stocks, commodities, or futures	13	2.0	1.8	2	1.2	1.1
s. Betting or gambling using some other game, activity, or event we have not listed	24	3.6	3.4	10	6.1	5.5

3. Have you gambled on [type of gambling] in the past year?  
 (% responding yes)

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
a. Slot machines	114	19.5	16.1	34	22.4	18.7
b. Table games at a casino such as poker, roulette, craps, and blackjack	71	12.0	10.0	19	12.1	10.4
c. Video poker, video keno, or video blackjack	41	6.4	5.8	15	9.4	8.2
d. Dice games	32	5.0	4.5	11	6.9	6.0
e. Scratch tickets or pull tabs	138	24.8	19.5	33	23.6	18.1
f. Lotteries such as Powerball, Hot Lotto, Mega Millions, and daily numbers	87	14.1	12.3	18	12.7	9.9
g. Horse racing or dog racing	19	2.9	2.7	4	2.5	2.2
h. Bingo	41	6.4	5.8	6	3.9	3.3
i. Card games with friends, family, or others but not at a casino	100	19.8	14.1	27	21.6	14.8
j. Games of personal skill such as pool, bowling, video games, or playing basketball	67	13.8	9.4	15	13.5	8.2
k. Fantasy sports leagues or games where there is an entry fee to play	49	8.2	6.9	7	4.6	3.8
l. Pools such as March madness college basketball tournaments, Super Bowl winners, or baby due dates	33	6.2	4.7	9	6.7	4.9
m. Other sports betting on professional, college, and amateur games or events	53	8.4	7.5	11	7.1	6.0
n. Raffle tickets including those in support of a charitable cause	106	18.2	15.0	13	9.3	7.1
o. Online gambling or betting using the Internet	10	1.5	1.4	3	1.9	1.6
p. Live keno	5	0.8	0.7	1	0.6	0.5
q. Video lottery machines	16	2.5	2.3	5	3.1	2.7
r. Day trading of high-risk trading of stocks, commodities, or futures	5	0.8	0.7	1	0.6	0.5
s. Betting or gambling using some other game, activity, or event we have not listed	31	4.9	4.4	10	6.5	5.5

4. Have you ever gambled on [type of gambling] in your lifetime?  
 (% responding *yes*)

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
a. Slot machines	85	18.2	12.0	28	23.7	15.4
b. Table games at a casino such as poker, roulette, craps, and blackjack	59	11.4	8.3	21	15.2	11.5
c. Video poker, video keno, or video blackjack	50	8.5	7.1	20	14.0	11.0
d. Dice games	60	10.1	8.5	25	16.9	13.7
e. Scratch tickets or pull tabs	113	27.2	15.9	36	33.6	19.8
f. Lotteries such as Powerball, Hot Lotto, Mega Millions, and daily numbers	65	12.4	9.2	25	20.2	13.7
g. Horse racing or dog racing	37	5.8	5.2	13	8.2	7.1
h. Bingo	141	23.7	19.9	40	27.0	22.0
i. Card games with friends, family, or others but not at a casino	137	34.3	19.3	41	42.3	22.5
j. Games of personal skill such as pool, bowling, video games, or playing basketball	84	20.2	11.8	21	21.9	11.5
k. Fantasy sports leagues or games where there is an entry fee to play	46	8.4	6.5	9	6.3	4.9
l. Pools such as March madness college basketball tournaments, Super Bowl winners, or baby due dates	105	21.3	14.8	18	14.4	9.9
m. Other sports betting on professional, college, and amateur games or events	84	14.8	11.8	10	6.9	5.5
n. Raffle tickets including those in support of a charitable cause	175	37.4	24.7	40	31.5	22.0
o. Online gambling or betting using the Internet	24	3.8	3.4	11	7.1	6.0
p. Live keno	10	1.5	1.4	0	--	--
q. Video lottery machines	36	5.8	5.1	19	12.2	10.4
r. Day trading of high-risk trading of stocks, commodities, or futures	5	0.8	0.7	1	0.6	0.5
s. Betting or gambling using some other game, activity, or event we have not listed	83	13.9	11.7	21	14.7	11.5

**If ever gambled online,**

5. Please indicate whether or not you have done each of the following types of online gambling.

(% responding *yes*)

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
a. Poker	38	77.6	5.4	11	57.9	6.0
b. Blackjack	28	57.1	3.9	11	57.9	6.0
c. Other casino-style games such as roulette or baccarat	20	40.8	2.8	9	47.4	4.9
d. Fantasy sports leagues (with an entry fee to play)	33	67.3	4.7	5	26.3	2.7
e. Sports betting on actual games	25	51.0	3.5	4	21.1	2.2
f. Horse or dog racing	11	22.4	1.6	2	10.5	1.1
g. Some other type of online gambling or betting	18	36.7	2.5	8	42.1	4.4

**If ever gambled online,**

6a. Do you recall ever seeing advertisements for gambling on social media sites such as Facebook?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	301	45.9	42.5	74	45.1	40.7
No	183	27.9	25.8	43	26.2	23.6
Don't know/Not sure	170	25.9	24.0	46	28.0	25.3

6b. Have you ever clicked on an advertisement in a social media site (such as Facebook) to enter an online gambling site, including free gambling sites?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	23	7.6	3.2	14	18.9	7.7
No	276	91.7	38.9	60	81.1	33.0
Don't know/Not sure	2	0.7	0.3	0	--	--



**If gambled at all in past year,**

7. How old were you the first time you gambled, bet, or wagered money or possessions?

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq	Valid %	Total %
Younger than 10	45	9.4	6.3	13	10.7	7.1
10-14 years old	120	24.9	16.9	26	21.3	14.3
15 years or older	261	54.3	36.8	67	54.9	36.8
Don't Know/Not Sure	54	11.2	7.6	13	10.7	7.1

**If gambled at all in past year,**

8. Thinking about all types of activities that involve wagering money or possessions, would you say you bet or gamble....

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq	Valid %	Total %
Daily	4	0.8	0.6	2	1.6	1.1
Every other day	3	0.6	0.4	0	0	0
More than once per week	8	1.7	1.1	4	3.3	2.2
Once per week	17	3.5	2.4	4	3.3	2.2
2-3 times per month	36	7.5	5.1	10	8.2	5.5
Once per month	48	10.0	6.8	16	13.1	8.8
Every other month	27	5.6	3.8	8	6.6	4.4
2-3 times per year	183	38.0	25.8	38	31.1	20.9
Once per year	95	19.8	13.4	19	15.6	10.4
Never	45	9.4	6.3	19	15.6	10.4
Don't Know/Not Sure	15	3.1	2.1	2	1.6	1.1

**If gambled at all in past year,**

9. Think about the last three times you gambled. How many times did you...

a. End up losing money

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq	Valid %	Total %
0 times	125	26.0	17.6	34	27.9	18.7
1 time	170	35.4	24.0	42	34.4	23.1
2 times	27	5.6	15.4	28	23.0	15.4
3 times	5	1.0	10.7	18	14.8	9.9

b. Break even

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq	Valid %	Total %
0 times	306	63.8	43.2	76	62.3	41.8
1 time	142	29.6	20.0	36	29.5	19.8
2 times	27	5.6	3.8	7	5.7	3.8
3 times	5	1.0	0.7	3	2.5	1.6

c. End up wining money

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq	Valid %	Total %
0 times	181	37.7	25.5	44	36.1	24.2
1 time	196	40.8	27.6	44	36.1	24.2
2 times	75	15.6	10.6	22	18.0	12.1
3 times	28	5.8	3.9	12	9.8	6.6

**If gambled at all in past year,**

10. In a single day or evening, have you ever gambled with...

(% responding *yes*)

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq.	Valid %	Total %
a. More than \$500	13	2.7	1.8	3	2.5	1.6
b. \$201-\$500?	17	3.5	2.4	9	7.4	4.9
c. \$101-\$200?	30	6.3	4.2	6	5.0	3.3
d. \$51-\$100?	50	10.4	7.1	18	14.9	9.9
e. \$26-\$50?	76	15.9	10.7	19	15.7	10.4
f. \$1-\$25?	244	50.9	34.4	48	39.7	26.4
g. \$0?	47	9.8	6.6	16	13.2	8.8

**If spent more than \$500,**

10a. What is the largest amount of money you have ever gambled with?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
2942.31 (3817.93)	600/15000	866.67 (230.94)	600/1000

11. In a single day or evening, have you ever lost...

(% responding *yes*)

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq.	Valid %	Total %
a. More than \$500	11	2.3	1.6	3	2.5	1.6
b. \$201-\$500?	8	1.7	1.1	8	6.6	4.4
c. \$101-\$200?	23	4.8	3.2	3	2.5	1.6
d. \$51-\$100?	40	8.4	5.6	15	12.4	8.2
e. \$26-\$50?	58	12.1	8.2	18	14.9	9.9
f. \$1-\$25?	278	58.0	39.2	49	40.5	26.9
g. \$0?	58	12.1	8.2	23	19.0	12.6

**If lost more than \$500,**

12. What is the largest amount of money you have ever lost gambling in a single day?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
2131.82 (2125.36)	500/7000	733.33 (230.94)	600/1000

13. In a single day or evening, have you ever won...

(% responding yes)

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq.	Valid %	Total %
a. More than \$500	26	5.4	3.7	11	9.1	6.0
b. \$201-\$500?	31	6.5	4.4	9	7.4	4.9
c. \$101-\$200?	36	7.5	5.1	14	11.6	7.7
d. \$51-\$100?	47	9.8	6.6	15	12.4	8.2
e. \$26-\$50?	80	16.7	11.3	18	14.9	9.9
f. \$1-\$25?	182	38.1	25.7	29	24.0	15.9
g. \$0?	71	14.9	10.0	23	19.0	12.6

**If won more than \$500,**

14. What is the largest amount of money you have ever won gambling in a single day?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
3115.38 (3772.08)	600/15000	3531.82 (8787.04)	600/30000

15. How much money do you think you spend on gambling over the course of a year?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Less than \$25	229	47.9	32.3	53	43.8	29.1
\$25 to \$50	89	18.6	12.6	15	12.4	8.2
\$51 to \$100	57	11.9	8.0	19	15.7	10.4
\$101 to \$200	28	5.9	3.9	8	6.6	4.4
\$201 to \$300	17	3.6	2.4	10	8.3	5.5
\$301 to \$500	22	4.6	3.1	2	1.7	1.1
\$501 to \$700	7	1.5	1.0	3	2.5	1.6
\$701 to \$1,000	2	0.4	0.3	2	1.7	1.1
\$1,001 to \$2,000	6	1.3	0.8	4	3.3	2.2
More than \$2,000	8	1.7	1.1	1	0.8	0.5
Don't Know/Not Sure	10	2.1	1.4	1	1.7	1.1

16. Think about the reasons you gamble. For each of the following, please indicate whether it is very important, important, not very important, or not at all important as a reason you gamble.

a. A way to socialize with friends

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	79	16.6	11.1	21	17.9	11.5
Important	182	38.2	25.7	34	29.1	18.7
Not Very Important	92	19.3	13.0	28	23.9	15.4
Not at all Important	113	23.7	15.9	29	24.8	15.9
Don't Know	9	1.9	1.3	3	2.6	1.6

b. A source of excitement or a challenge

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	65	13.7	9.2	23	19.7	12.6
Important	195	41.0	27.5	40	34.2	22.0
Not Very Important	95	20.0	13.4	24	20.5	13.2
Not at all Important	111	23.3	15.7	25	21.4	13.7
Don't Know	8	1.7	1.1	4	3.4	2.2

c. A hobby

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	18	3.8	2.5	4	3.4	2.2
Important	59	12.4	8.3	12	10.3	6.6
Not Very Important	104	21.8	14.7	30	25.6	16.5
Not at all Important	283	59.5	39.9	65	55.6	35.7
Don't Know	10	2.1	1.4	4	3.4	2.2

d. A source of money to use for paying bills

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	5	1.1	0.7	3	2.6	1.6
Important	14	2.9	2.0	8	6.8	4.4
Not Very Important	58	12.2	8.2	16	13.7	8.8
Not at all Important	388	81.5	54.7	84	71.8	46.2
Don't Know	9	1.9	1.3	4	3.4	2.2

e. A source of money to support charities (e.g. raffle tickets)

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	36	7.6	5.1	9	7.7	4.9
Important	128	26.9	18.1	32	27.4	17.6
Not Very Important	90	18.9	12.7	24	20.5	13.2
Not at all Important	208	43.7	29.3	46	39.3	25.3
Don't Know	13	2.7	1.8	4	3.4	2.2

f. A source of entertainment or fun

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	78	16.4	11.0	29	24.8	15.9
Important	240	50.4	33.9	50	42.7	27.5
Not Very Important	83	17.4	11.7	19	16.2	10.4
Not at all Important	65	13.7	9.2	15	12.8	8.2
Don't Know	9	1.9	1.3	3	2.6	1.6

g. An escape or distraction from everyday problems

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	17	3.6	2.4	7	6.0	3.8
Important	36	7.6	5.1	17	14.5	9.3
Not Very Important	97	20.4	13.7	24	20.5	13.2
Not at all Important	315	66.2	44.4	63	53.8	34.6
Don't Know	9	1.9	1.3	4	3.4	2.2

h. A way to win money

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	57	12.0	8.0	15	12.8	8.2
Important	150	31.5	21.2	33	28.2	18.1
Not Very Important	112	23.5	15.8	21	17.9	11.5
Not at all Important	147	30.9	20.7	44	37.6	24.2
Don't Know	9	1.9	1.3	3	2.6	1.6

**If gamble once per year or never,**

17. For each of the following, please indicate whether it is very important, important, not very important, or not at all important as a reason you rarely or never gamble.

a. You are too busy or don't have enough time

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	23	16.7	3.2	5	13.9	2.7
Important	33	23.9	4.7	3	8.3	1.6
Not Very Important	25	18.1	3.5	11	30.6	6.0
Not at all Important	52	37.7	7.3	14	38.9	7.7
Don't Know	4	2.9	0.6	2	5.6	1.1

b. You live too far away from casinos or other places to gamble

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	9	6.5	1.3	1	2.8	0.5
Important	23	16.7	3.2	4	11.1	2.2
Not Very Important	29	21.0	4.1	9	25.0	4.9
Not at all Important	72	52.2	10.2	18	50.0	9.9
Don't Know	4	2.9	0.6	3	8.3	1.6

c. You have moral or ethical concerns about gambling

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	32	23.2	4.5	7	19.4	3.8
Important	44	31.9	6.2	7	19.4	3.8
Not Very Important	22	15.9	3.1	7	19.4	3.8
Not at all Important	36	26.1	5.1	13	36.1	7.1
Don't Know	3	2.2	0.4	2	5.6	1.1

d. You are concerned about the possibility of losing money

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	69	37.7	9.7	15	41.7	8.2
Important	41	29.7	5.8	6	16.7	3.3
Not Very Important	11	8.0	1.6	5	13.9	2.7
Not at all Important	13	9.4	1.8	7	19.4	3.8
Don't Know	3	2.2	0.4	2	5.6	1.1

e. You don't have money for gambling

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	52	37.7	7.3	7	19.4	3.8
Important	41	29.7	5.8	14	38.9	7.7
Not Very Important	17	12.3	2.4	3	8.3	1.6
Not at all Important	24	17.4	3.4	10	27.8	5.5
Don't Know	3	2.2	0.4	2	5.6	1.1

f. You are not interested in gambling

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very Important	70	50.7	9.9	19	52.8	10.4
Important	44	31.9	6.2	9	25.0	4.9
Not Very Important	13	9.4	1.8	2	5.6	1.1
Not at all Important	9	6.5	1.3	3	8.3	1.6
Don't Know	2	1.4	0.3	2	5.6	1.1

**TRANSITION:** The next questions are about how gambling may affect some people's relationships, health, and finances. **(DSM-IV GAMBLING SCREEN)**

**If gambled at all in past year,**

18. In the past year...

	UNI			Kirkwood		
	Freq. Yes	Valid %	Total %	Freq. Yes	Valid %	Total %
a. Have you often found yourself thinking about gambling (e.g. reliving past gambling experiences, planning the next time you will play or thinking of ways to get money to gamble)?	49	10.4	6.9	13	11.2	7.1
b. Have you needed to gamble with more and more money to get the amount of excitement you are looking for?	20	4.2	2.8	3	2.6	1.6
c. Have you made repeated unsuccessful attempts to control, cut back, or stop gambling?	9	1.9	1.3	2	1.7	1.1
d. Have you become restless or irritable when trying to cut down or stop gambling?	10	2.1	1.4	2	1.7	1.1
e. Have you gambled to escape from problems or when you are feeling depressed, anxious, or bad about yourself?	13	2.8	1.8	5	4.3	2.7
f. After losing money gambling, have you returned another day in order to regain your losses?	33	7.0	4.7	9	7.8	4.9
g. Have you lied to your family or others to hide the extent of your gambling?	16	3.4	2.3	4	3.4	2.2
h. Have you been forced to go beyond what is strictly legal in order to finance gambling or to pay gambling debts?	6	1.3	0.8	0	0	0
i. Have you risked or lost a significant relationship, job, educational or career opportunity because of gambling?	7	1.5	1.0	0	0	0
j. Have you sought help from others to provide the money to relieve a desperate financial situation caused by gambling?	7	1.5	1.0	1	0.9	0.5

**If gambled at all in past year,**

19. During the past 12 months, have people who are important to you told you that they thought you should cut-back, stop, or try to control your gambling?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	6	1.3	0.8	1	0.9	0.5
No	464	98.5	65.4	112	96.6	61.5
Don't Know/ Not Sure	1	0.2	0.1	2	1.7	1.1

**If gambled at all in past year,**

20a. Have you ever thought you might have a gambling problem?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	10	2.1	1.4	3	2.6	1.6
No	459	97.5	64.7	113	97.4	62.1
Don't Know/ Not Sure	2	0.4	0.3	0	0	0

20b. Have you ever talked about your gambling problem with...

a. A friend?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	8	66.7	1.1	3	100	1.6
No	4	33.3	0.6	0	0	0
Don't Know/ Not Sure	0	0	0	0	0	0

b. A parent?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	6	50.0	0.8	1	33.3	0.5
No	6	50.0	0.8	2	66.7	1.1
Don't Know/ Not Sure	0	0	0	0	0	0

c. Another family member?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	6	50.0	0.8	1	33.3	0.5
No	6	50.0	0.8	2	66.7	1.1
Don't Know/ Not Sure	0	0	0	0	0	0

d. A counselor?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	4	33.3	0.6	0	0	0
No	8	66.7	1.1	3	100	1.6
Don't Know/ Not Sure	0	0	0	0	0	0



e. Anyone else? (specify)

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	0	0	0	0	0	0
No	11	8.3	1.6	3	100	1.6
Don't Know/ Not Sure	0	91.7	0.1	0	0	0

## OTHER GAMBLING BEHAVIOR QUESTIONS

**If gambled at all in past year,**

21. When you gamble, do you usually gamble alone?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	28	5.9	3.9	12	10.4	6.6
No	419	89.0	59.1	96	83.5	52.7
Don't Know/ Not Sure	17	3.6	2.4	7	6.1	3.8

**If gambled at all in past year,**

22. When you gamble, how often do you also drink alcohol?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Always	19	4.0	2.7	9	7.8	4.9
Often	89	18.9	12.6	18	15.7	9.9
Rarely	130	27.6	18.3	38	33.0	20.9
Never	214	45.4	30.2	46	40.0	25.3
Don't Know/Not Sure	16	3.4	2.3	4	3.5	2.2

**If gambled at all in past year,**

23. Have you ever gambled instead of...

a. Attending class?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	9	1.9	1.3	2	1.7	1.1
No	462	98.1	65.2	112	97.4	61.5
Don't Know/ Not Sure	0	0	0	1	0.9	0.5

b. Studying for a test?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	21	4.5	3.0	7	6.1	3.8
No	449	95.3	63.3	106	92.2	58.2
Don't Know/ Not Sure	1	0.2	0.1	1	0.9	0.5

c. Doing your homework?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	49	10.4	6.9	13	11.3	7.1
No	417	88.5	58.8	101	87.8	55.5
Don't Know/ Not Sure	5	1.1	0.7	1	0.9	0.5

**GAMBLING NORMS (ask of everyone)**

24a. What percent of your male friends at your college or university do you think gamble more than a few times per year?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
34.41 (26.31)	0/100	33.17 (26.69)	0/100

24b. What percent of your female friends at your college or university do you think gamble more than a few times per year?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
17.30 (16.98)	0/100	20.18 (20.03)	0/94

25a. How often do you think the average male college student gambles?

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq	Valid %	Total %
Daily	2	0.3	0.3	0	0	0
Every other day	1	0.2	0.1	0	0	0
More than once per week	16	2.5	2.3	8	5.2	4.4
Once per week	60	9.3	8.5	18	11.7	9.9
2-3 times per month	168	26.1	23.7	41	26.6	22.5
Once per month	150	23.3	21.2	18	11.7	9.9
Every other month	91	14.2	12.8	16	10.4	8.8
2-3 times per year	105	16.3	14.8	33	21.4	18.1
Once per year	18	2.8	2.5	7	4.5	3.8
Never	4	0.6	0.6	2	1.3	1.1
Don't Know/Not Sure	28	4.4	3.9	11	7.1	6.0

25b. How often do you think the average female college student gambles?

	UNI			Kirkwood		
	Freq	Valid %	Total %	Freq	Valid %	Total %
Daily	0	0	0	2	1.3	1.1
Every other day	0	0	0	0	0	0
More than once per week	3	0.5	0.4	1	0.7	0.5
Once per week	15	2.3	2.1	2	1.3	1.1
2-3 times per month	50	7.8	7.1	25	16.3	13.7
Once per month	88	13.7	12.4	16	10.5	8.8
Every other month	86	13.4	12.1	16	10.5	8.8
2-3 times per year	223	34.7	31.5	55	35.9	30.2
Once per year	134	20.9	18.9	16	10.5	8.8
Never	13	2.0	1.8	6	3.9	3.3
Don't Know/Not Sure	30	4.7	4.2	14	9.2	7.7

26a. How much money do you think the average male college student spends on gambling per year?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Less than \$25	21	3.3	3.0	8	5.3	4.4
\$25 to \$50	64	10.0	9.0	17	11.2	9.3
\$51 to \$100	122	19.0	17.2	26	17.1	14.3
\$101 to \$200	135	21.1	19.0	19	12.5	10.4
\$201 to \$300	102	15.9	14.4	15	9.9	8.2
\$301 to \$500	75	11.7	10.6	18	11.8	9.9
\$501 to \$700	40	6.2	5.6	14	9.2	7.7
\$701 to \$1,000	17	2.7	2.4	12	7.9	6.6
\$1,001 to \$2,000	7	1.1	1.0	5	3.3	2.7
More than \$2,000	2	0.3	0.3	0	0	0
Don't Know/Not Sure	56	8.7	7.9	17	11.2	9.3

26b. How much money do you think the average female college student spends on gambling per year?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Less than \$25	105	16.4	14.8	20	13.2	11.0
\$25 to \$50	133	20.7	18.8	24	15.9	13.2
\$51 to \$100	166	25.9	23.4	29	19.2	15.9
\$101 to \$200	101	15.8	14.2	23	15.2	12.6
\$201 to \$300	50	7.8	7.1	19	12.6	10.4
\$301 to \$500	20	3.1	2.8	10	6.6	5.5
\$501 to \$700	6	0.9	0.8	4	2.6	2.2
\$701 to \$1,000	3	0.5	0.4	4	2.6	2.2
\$1,001 to \$2,000	0	0	0	0	0	0
More than \$2,000	1	0.2	0.1	3	2.0	1.6
Don't Know/Not Sure	56	8.7	7.9	1	0.7	7.7

## ADDICTION TREATMENT AND GAMBLING TREATMENT

27a. Have you ever been treated by a professional for an addiction or other mental health problem?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	69	10.8	9.7	24	15.9	13.2
No	564	88.1	79.5	126	83.4	69.2
Don't Know/ Not Sure	3	0.5	0.4	0	0	0

27b. Think about the last time you received addiction or other mental health treatment. How would you rate the treatment services you received?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Excellent	17	24.6	2.4	6	25.0	3.3
Good	33	47.8	4.7	13	54.2	7.1
Fair	12	17.4	1.7	2	8.3	1.1
Poor	6	8.7	0.8	3	12.5	1.6
Don't Know/ Not Sure	1	1.4	0.1	0	0	0

### If gambled at all in past year,

28a. Have you ever been treated by a professional for a gambling problem?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	1	0.2	0.1	0	0	0
No	639	99.8	90.1	151	100	83.0
Don't Know/ Not Sure	0	0	0	0	0	0

28b. Think about the last time you received gambling treatment. How would you rate the gambling treatment services you received?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Excellent	0	0	0	0	0	0
Good	0	0	0	0	0	0
Fair	1	100.0	0.1	0	0	0
Poor	0	0	0	0	0	0
Don't Know/ Not Sure	0	0	0	0	0	0

### (ASK of EVERYONE)

29a. Please list as many addiction treatment services or assistance resources you can think of that are available in your community, including on your college campus. If none, state "none."

[ ] = open text field

29b. Please list as many gambling treatment services or assistance resources you can think of that are available in your community, including on your college campus. If none, state “none.”

[ ] = open text field

30. Have you ever seen or heard of the gambling helpline 1-800-BETS-OFF?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	559	88.2	78.8	119	79.3	65.4
No	73	11.5	10.3	31	20.7	17.0
Don't Know/ Not Sure	2	0.3	0.3	0	0	0

31. The next questions ask for your opinion about gambling treatment services. Please indicate whether you strongly disagree, disagree, agree, or strongly agree with each statement.

a. There is no convenient place to get treatment for a gambling problem on my college campus.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	56	9.0	7.9	19	13.0	10.4
Disagree	236	37.8	33.3	34	23.3	18.7
Agree	123	19.7	17.3	36	24.7	19.8
Strongly agree	24	3.8	3.4	13	8.9	7.1
Don't Know/Not Sure	181	29.0	25.5	43	29.5	23.6

b. There is no convenient place to get treatment for an addiction problem on my college campus.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	97	15.5	13.7	24	16.4	13.2
Disagree	277	44.4	39.1	43	29.5	23.6
Agree	90	14.4	12.7	31	21.2	17.0
Strongly agree	12	1.9	1.7	7	4.8	3.8
Don't Know/Not Sure	4	0.6	20.3	40	27.4	22.0

c. The average college student can't afford treatment for an addiction problem.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	55	8.8	7.8	22	15.1	12.1
Disagree	225	36.1	31.7	37	25.3	20.3
Agree	186	29.8	26.2	50	34.2	27.5
Strongly agree	47	7.5	6.6	14	9.6	7.7
Don't Know/Not Sure	107	17.1	15.1	22	15.1	12.1

e. Treatment for an addiction problem probably does not work.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	138	22.1	19.5	41	28.1	22.5
Disagree	361	57.9	50.9	76	52.1	41.8
Agree	37	5.9	5.2	11	7.5	6.0
Strongly agree	13	2.1	1.8	0	0	0
Don't Know/Not Sure	71	11.4	10.0	17	11.6	9.3

f. Treatment for a gambling problem probably does not work.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	103	16.5	14.5	30	20.5	16.5
Disagree	388	62.2	54.7	77	52.7	42.3
Agree	36	5.8	5.1	13	8.9	7.1
Strongly agree	8	1.3	1.1	0	0	0
Don't Know/Not Sure	86	13.6	12.0	25	17.1	13.7

g. Gambling is a serious problem among college students.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	31	5.0	4.4	18	12.3	9.9
Disagree	283	45.4	39.9	49	33.6	26.9
Agree	112	15.8	15.8	33	22.6	18.1
Strongly agree	21	3.4	3.0	8	5.5	4.4
Don't Know/Not Sure	174	24.5	24.5	37	25.3	20.3

h. Addiction is a serious problem among college students.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	15	2.4	2.1	8	5.6	4.4
Disagree	138	22.3	19.5	22	15.3	12.1
Agree	292	47.1	41.2	68	47.2	37.4
Strongly agree	64	10.3	9.0	23	16.0	12.6
Don't Know/Not Sure	107	17.3	15.1	22	15.3	12.1

i. Addiction treatment services are well publicized on my campus.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	83	13.4	11.7	14	9.7	7.7
Disagree	288	46.5	40.6	60	41.7	33.0
Agree	152	24.5	21.4	29	20.1	15.9
Strongly agree	18	2.9	2.5	8	5.6	4.4
Don't Know/Not Sure	74	11.9	10.4	32	22.2	17.6

j. Gambling treatment services are well publicized on my campus.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	179	28.9	25.2	29	20.1	15.9
Disagree	321	51.8	45.3	63	43.8	34.6
Agree	40	6.5	5.6	16	11.1	8.8
Strongly agree	3	0.5	0.4	2	1.4	1.1
Don't Know/Not Sure	74	11.9	10.4	33	22.9	18.1

k. It is a sign of personal weakness or inadequacy to see a counselor or therapist for emotional or other problems.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	283	45.6	39.9	74	51.4	40.7
Disagree	236	38.1	33.3	36	25.0	19.8
Agree	43	6.9	6.1	22	15.3	12.1
Strongly agree	17	2.7	2.4	1	0.7	0.5
Don't Know/Not Sure	38	6.1	5.4	9	6.3	4.9

l. People will think less favorably of someone who goes to see a counselor or therapist.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	127	20.5	17.9	40	27.8	22.0
Disagree	250	40.3	35.3	47	32.6	25.8
Agree	160	25.8	22.6	41	28.5	22.5
Strongly agree	26	4.2	3.7	3	2.1	1.6
Don't Know/Not Sure	53	8.5	7.5	12	8.3	6.6

m. It is best for a person to hide the fact that he or she has seen a counselor or therapist.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	185	29.8	26.1	44	30.6	24.2
Disagree	280	45.2	39.5	61	42.4	33.5
Agree	81	13.1	11.4	26	18.1	14.3
Strongly agree	11	1.8	1.6	1	0.7	0.5
Don't Know/Not Sure	58	9.4	8.2	11	7.6	6.0

n. If I believed I had an addiction problem, my first instinct would be to seek professional help.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	20	3.2	2.8	11	7.7	6.0
Disagree	181	29.4	25.5	41	28.7	22.5
Agree	255	41.4	36.0	55	38.5	30.2
Strongly agree	89	14.4	12.6	20	14.0	11.0
Don't Know/Not Sure	66	10.7	9.3	15	10.5	8.2

- o. If I believed I had a gambling problem, my first instinct would be to seek professional help.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	27	4.4	3.8	10	7.0	5.5
Disagree	213	34.6	30.0	47	32.9	25.8
Agree	233	37.8	32.9	50	35.0	27.5
Strongly agree	68	11.0	9.6	17	11.9	9.3
Don't Know/Not Sure	71	11.5	10.0	18	12.6	9.9

- p. If I were experiencing a serious gambling problem at this point in my life, I would be confident that I could find help in counseling.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	9	1.5	1.3	5	3.5	2.7
Disagree	88	14.3	12.4	19	13.3	10.4
Agree	341	55.4	48.1	72	50.3	39.6
Strongly agree	111	18.0	15.7	32	22.4	17.6
Don't Know/Not Sure	63	10.2	8.9	14	9.8	7.7

- q. If I were experiencing a serious addiction problem at this point in my life, I would be confident that I could find help in counseling.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	9	1.5	1.3	5	3.5	2.7
Disagree	57	9.3	8.0	15	10.5	8.2
Agree	358	58.1	50.5	72	50.3	39.6
Strongly agree	134	21.8	18.9	34	23.8	18.7
Don't Know/Not Sure	53	8.6	7.5	16	11.2	8.8

- r. A person with a gambling problem is more likely to solve it with help from a professional than they are if they try to solve it alone.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	20	3.2	2.8	7	4.9	3.8
Disagree	69	11.2	9.7	17	11.9	9.3
Agree	305	49.5	43.0	61	42.7	33.5
Strongly agree	161	26.1	22.7	44	30.8	24.2
Don't Know/Not Sure	57	9.3	8.0	13	9.1	7.1



- s. A person with an addiction problem is more likely to solve it with help from a professional than they are if they try to solve it alone.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Strongly disagree	19	3.1	2.7	6	4.2	3.3
Disagree	62	10.1	8.7	17	11.9	9.3
Agree	293	47.6	41.3	56	39.2	30.8
Strongly agree	184	29.9	26.0	50	35.0	27.5
Don't Know/Not Sure	53	8.6	7.5	13	9.1	7.1

32. Please indicate which of the following people in your life has (or had) a gambling problem, if any.

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
a. Father	26	4.2	3.7	5	3.5	2.7
b. Mother	11	1.8	1.6	4	2.8	2.2
c. Brother or sister	14	2.3	2.0	7	4.9	3.8
d. Spouse or partner	5	0.8	0.7	4	2.8	2.2
e. Another relative	128	20.8	18.1	38	26.6	20.9
f. A friend or other important person in my life	80	13.0	11.3	22	15.4	12.1

**If 32 = yes on any**

33. Think of the person closest to you who had a gambling problem. Was that person treated for their gambling problem?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	15	7.7	2.1	3	5.7	1.6
No	160	82.5	22.6	45	84.9	24.7
Don't Know/Not Sure	19	9.8	2.7	5	9.4	2.7

34. How helpful would you say the treatment was that the person received?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Very helpful	4	26.7	0.6	0	0	0
Helpful	7	46.7	1.0	2	66.7	1.1
Not very helpful	0	0	0	1	33.3	0.5
Not at all helpful	1	6.7	0.1	0	0	0
Don't Know/ Not Sure	3	20.0	0.4	0	0	0

**DEMOGRAPHICS (ask of everyone)**

35. What is your gender?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Female	367	59.6	51.8	92	64.3	50.5
Male	246	39.9	34.7	51	35.7	28.0
Transgender	1	0.2	0.1	0	0	0
Other	0	0	0	0	0	0

36. What is your age?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
21.53 (4.40)	0/59	22.54 (4.51)	17/53

37. Are you Hispanic or Latino/a?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	15	2.4	2.1	6	4.2	3.3
No	595	96.6	83.9	133	93.0	73.1
Don't Know/ Not Sure	1	0.2	0.1	2	1.4	1.1

38. Which one or more of the following would you say is your race? (Select all that apply)

	UNI		Kirkwood	
	Freq.	Total %	Freq.	Valid %
White	580	81.8	127	69.8
Black or African American	11	1.6	6	3.3
Asian	13	1.8	8	4.4
Native Hawaiian or Other Pacific Islander	0	--	1	0.5
American Indian or Alaska Native	11	1.6	3	1.6
Other [Specify]	14	2.0	4	2.2

39. Are you an international student studying in the United States?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	7	1.1	1.0	6	4.2	3.3
No	609	98.9	85.9	137	95.8	75.3
Don't Know/ Not Sure	1	0.2	0.1	2	1.4	1.1

40. What is your marital status?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Single, never married	566	91.9	79.8	114	79.7	62.6
Married	25	4.1	3.5	21	14.7	11.5
Divorced	10	1.6	1.4	1	0.7	0.5
Widowed	0	0	0	0	0	0
Separated	1	0.2	0.1	1	0.7	0.5
A member of an unmarried couple (domestic partnership)	12	1.9	1.7	6	4.2	4.2

41a. Are you currently employed for wages?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Yes	422	68.6	59.5	100	69.9	54.9
No	185	30.1	26.1	41	28.7	22.5

41b. About how many hours per week do you work?

	UNI		Kirkwood	
	Mean (SD)	Min/Max	Mean (SD)	Min/Max
	17.9 (10.4)	0.0/65.0	27.9 (12.8)	8.0/90.0

42. After paying for necessities like rent, utilities, groceries, and savings, about how much disposable income is left each month for entertainment or recreation?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Less than \$50	166	27.0	23.4	31	21.7	17.0
\$50 to less than \$100	196	31.9	27.6	37	25.9	20.3
\$100 to less than \$250	110	17.9	15.5	36	25.2	19.8
\$250 to less than \$500	47	7.6	6.6	13	9.1	7.1
More than \$500	21	3.4	3.0	12	8.4	6.6
Not sure	54	8.8	7.6	7	4.9	3.8

43. What is your current status in school?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
1 <sup>st</sup> year undergraduate	84	13.7	11.8	40	28.0	22.0
2 <sup>nd</sup> year undergraduate	96	15.6	13.5	46	32.2	25.3
3 <sup>rd</sup> year undergraduate	194	31.5	27.4	17	11.9	9.3
4 <sup>th</sup> year undergraduate	186	30.2	26.2	8	5.6	4.4
5 <sup>th</sup> year or higher undergraduate	49	8.0	6.9	10	7.0	5.5
Other	3	0.5	0.4	7	11.9	9.3

44. Are you involved in any of the following?

	UNI		Kirkwood	
	Freq.	Valid %	Freq.	Valid %
Social fraternity or sorority	47	7.2	8	9.1
Student organization (including political organizations)	332	50.6	24	27.3
Club or intramural sports	186	28.4	17	19.3
NCAA sports	21	3.2	3	3.4
Other	70	10.7	36	40.9

45. Where do you live?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
On campus	257	41.8	36.2	6	4.2	3.3
Off campus apartment or house	317	51.5	44.7	96	67.1	52.7
Fraternity or sorority house	9	1.5	1.3	1	0.7	0.5
In the home of parent or guardian	28	4.6	3.9	34	23.8	18.7
Other	3	0.5	0.4	5	3.5	2.7

46. With whom do you live?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Alone	77	12.5	10.9	12	8.4	6.6
With friends or acquaintances	419	68.2	59.1	47	32.9	25.8
With a significant other	54	8.8	7.6	38	26.6	20.9
With parent guardian	30	4.9	4.2	35	24.5	19.2
Other	32	5.2	4.5	9	6.3	4.9

47. How are the majority of your college costs paid?

	UNI			Kirkwood		
	Freq.	Valid %	Total %	Freq.	Valid %	Total %
Primarily parents	119	19.4	16.8	19	13.3	10.4
Primarily self	74	12.1	10.4	34	23.8	18.7
Primarily student loans or grants	178	29.0	25.1	46	32.2	25.3
Primarily scholarships (athletic, merit, or need-based)	53	8.6	7.5	4	2.8	2.2
Combination of the above	185	30.1	26.1	37	25.9	20.3
Don't know/Not sure	1	0.2	0.1	2	1.4	1.1

48. What is your grade point average (GPA)?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
3.34 (0.46)	1.90/4.60	3.15 (0.61)	0/4.00

49. How many credit hours are you taking this semester?

UNI		Kirkwood	
Mean (SD)	Min/Max	Mean (SD)	Min/Max
14.64 (5.07)	1.00/115.00	11.38 (5.69)	0/50

Thank you for participating

Please send your name, email and your ID number to [CSBR@uni.edu](mailto:CSBR@uni.edu) to be entered into the drawing for the iPad mini.

You will be contacted in May if you have been selected and you will be provided with more information at that time about how to claim your prize.

## Appendix C: Focus Group Guide

### Participant Introductions (5 Minutes)

- ◆ First Name
- ◆ What is your favorite entertainment past time?

### Focus Group Questions – General (10:00-85:00)

1. When you plan an activity for a weekend or evening, what are you most likely to plan?
2. When you have money to spend on a leisure activity, what do you most like to do?
3. When you think of gambling, what comes to mind?  
[PROBE] Do you consider playing bingo for money gambling?  
[PROBE] Pools for baby due dates? Winners of the Super Bowl?  
REVIEW LIST IF VARIOUS TYPES HAVE NOT BEEN MENTIONED
4. How common would you say gambling is among college students?  
[PROBE] What percent of college students do you think have gambled before?  
[PROBE] What percent of students do you think gamble regularly?  
[PROBE] Some students gamble more than others?  
[PROBE] Which students might be more likely to gamble?  
[PROBE] Do you think male and female students gamble at the same rates? [PROBE]  
Types of activities?
5. What types of gambling are more or less common among college students?
6. Thinking about various leisure and entertainment activities, what do you think are the main reasons people gamble?  
[PROBE] Reasons same or different for males and females? How?
7. Would you say that gambling activities are increasing, decreasing, or not changing much among college students?  
[PROBE] What gives you that impression?
8. What are some potential positive and negative consequences of gambling?  
[PROBE] How much of a problem would these negative consequences be?  
[PROBE] Are there any types of gambling that you think are more risky than others?  
[PROBE] How often or under what circumstances do the rewards of gambling outweigh the risks?
9. Under what conditions might gambling become a problem?  
[PROBE] How might you be able to tell if a person had a gambling problem?
10. If someone you knew had a gambling problem, how likely do you think it would be that you would be aware of that?

- [PROBE] If you noticed that a friend had gambling problem, do you think you would try to do anything about it or not? Why? Why not?
- [PROBE] What would you do?
- [PROBE] If people know about someone's gambling problem, how do you think it would affect the way the person is perceived by friends or others?
11. When you think about a gambling problem, do you think about it differently or the same as you think about drug or alcohol problems?
    - [PROBE] How is it the same or different?
  12. What ways do you think might work to prevent problem gambling among college students?
    - [PROBE] What can a college or university do?
    - [PROBE] What can friends do?
  13. What kind of help is available for a college student with a gambling problem?
    - [PROBE] What is available on your campus?
    - [PROBE] What is available in your community?
    - [PROBE] Have you ever heard of 1-800-BETS OFF?
  14. How do you think problem gambling might be treated?
    - [PROBE] Would treatment be similar or different from treatment for other dependencies?
    - [PROBE] Would treatment be similar or different from treatment for depression or anxiety?
  15. What barriers can you think of to someone seeking treatment for a gambling problem?
    - [PROBE] Is seeking help for gambling problems the same or different from seeking help for other problems? How?
  16. How effective do you think gambling treatment would be for a student?
    - [PROBE] What might make gambling treatment more effective?
    - [PROBE] Do you think that being treated for a gambling problem is something that people would share with their friends?
      - [PROBE] Why not?
      - [PROBE] If you found out that someone you knew was receiving treatment for a gambling problem, what would you think?

Closing Remarks (85:00-90:00)

That's it for the questions we have to cover today. Do any of you have any questions for me before we finish or any last comments? Thank you all very much for your time.

## Appendix D: Focus Group Demographic Questionnaire

1. What is your gender?     Female     Male     Transgender     Other

2. What is your age?    \_\_\_\_\_ Years

3. Are you Hispanic or Latino/a?     Yes     No     Don't Know/Not Sure

4. Which one or more of the following would you say is your race? (Select all that apply)

- White
- Black or African American
- Asian
- Native Hawaiian or Pacific Islander
- American Indian or Alaska Native
- Other (Specify: \_\_\_\_\_)
- Don't Know/Not Sure

5a. Are you currently employed for wages?     Yes (continue to 5b)     No (skip to Q6)

5b. About how many hours per week do you work?    \_\_\_\_\_ hours

6. What is your current status in school?

- 1<sup>st</sup> year undergraduate
- 2<sup>nd</sup> year undergraduate
- 3<sup>rd</sup> year undergraduate
- 4<sup>th</sup> year undergraduate
- 5<sup>th</sup> year or higher undergraduate
- Other

7a-e. Are you involved in any of the following?

	Yes	No
Social fraternity or sorority	<input type="checkbox"/>	<input type="checkbox"/>
Student organization (including political organizations)	<input type="checkbox"/>	<input type="checkbox"/>
Club or intramural sports	<input type="checkbox"/>	<input type="checkbox"/>
NCAA sports	<input type="checkbox"/>	<input type="checkbox"/>
Other (Specify: _____)	<input type="checkbox"/>	<input type="checkbox"/>

8. Where do you live?

- On campus
- Off campus apartment or house
- Fraternity or sorority house
- In the home of parent or guardian
- Other