



**Problem gambling and co-occurring substance use and crime among Georgia  
drug and DUI court clients**

Jennifer Zorland, PhD, CPH.  
Angela Mooss, PhD, CPH  
Ayana Perkins, MA  
James Emshoff, PhD

September 2009

For additional information, please contact:  
Jennifer Zorland at [jzorland@gmail.com](mailto:jzorland@gmail.com)

Correspondence can be addressed to:  
GSU Gambling Project  
Attn: Jennifer Zorland  
Department of Psychology  
Georgia State University  
140 Decatur Street, 11<sup>th</sup> Floor  
Atlanta, GA 30303

## EXECUTIVE SUMMARY

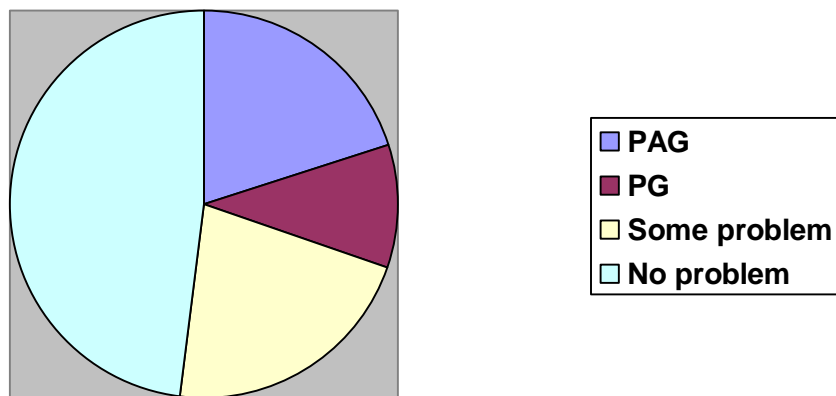
This summary report presents the results of an assessment of problem gambling and its correlates among a sample of over 600 adult alternative court participants in the State of Georgia, and it is a supplement to the survey of problem gambling within Georgia's general population completed by Georgia State University in 2007. This study is the first of its kind to be conducted as it focuses on a population in which potent risk factors for problem gambling are compounded. Specifically, participants have been identified by the criminal justice system as having both committed criminal offenses and as having a substance abuse problem. Because institutionalized populations (which often include offenders and those in substance abuse treatment) are generally excluded from assessments of the general population, these findings allow for a more accurate assessment of the burden of problem gambling within Georgia's population. Furthermore, this assessment provides information regarding behaviors that co-occur with gambling. These findings may be instrumental in informing policy, resource dedication, and intervention efforts. This summary focuses solely on the results of the study, however an abbreviated version of the research methodology is located in the appendix and additional information may be obtained by contacting the author.

### Key Findings

#### Prevalence of Problem Gambling

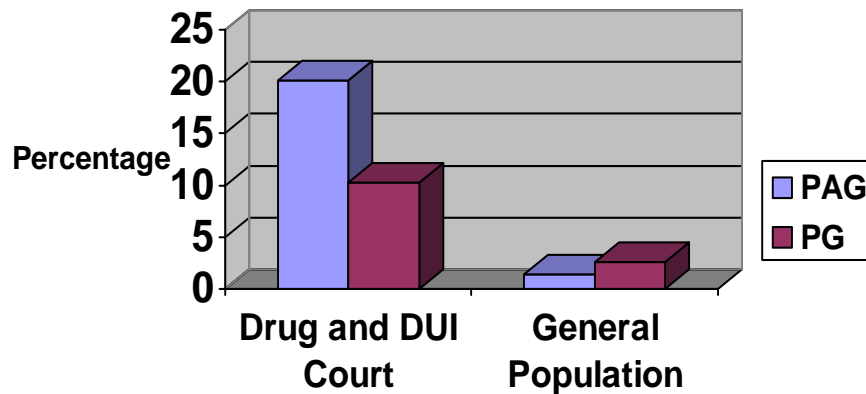
- The rate of gambling problems among drug and DUI court clients was extremely high. As displayed below, over half of the sample evidenced at a minimum some problem gambling. Specifically, the rate of pathological gambling was 20.1%, the rate of problem gambling was 10.3%, and an additional 21.6% of the sample was assessed as having some gambling problem (or at-risk for problem gambling).

#### Prevalence of Gambling Type among Drug/DUI Court Clients



- As displayed below, among this sample of drug and DUI court clients the rate of pathological gambling was over 14 times that found in the general population (1.4%) and the rate of problem gambling was roughly 4 times the rate found in the general population (1.5%).

## Prevalence of Pathological and Problem Gambling among Adults in Georgia



- A subsample of respondents who cited the only gambling activities they had ever participated in were the lottery and/or scratch off tickets had higher rates of pathological and problem gambling than what is found in the general population. Of this subsample 9.8% were assessed as pathological gamblers, 3.3% as problem gamblers, and 21.3% having some problem gambling.

### **Odds of pathological gambling compared to no-problem gambling classification contrasted by grouping variable** (after statistically controlling for age).

- Males were nearly 3 times more likely than females to be pathological gamblers than to have no gambling problem (OR = 3.11, CI = 1.82-5.32).
- Those who identified as White were 75% less likely than those who identified as other ethnicities to be pathological gamblers than they were to have no gambling problem (OR = 0.25, CI = 0.16-0.40).
- Drug court clients were nearly 6.5 times more likely than DUI court clients to be pathological gamblers than to have no gambling problem (OR = 6.48, CI = 2.28-18.41).
- Those who committed any gambling related crime were over 36 times more likely than others to be pathological gamblers than to have no gambling problem (OR = 36.46, CI = 20.19-65.86)
- Those who had gambled within a correctional setting (jail or prison) were over 12 times more likely than others to be pathological gamblers than to have no gambling problem (OR = 12.38, CI = 7.19 – 21.33).

- Compared to others respondents who believed that at least one of their parents had a gambling problem were over 4 times more likely to be pathological gamblers than to have no problem gambling (OR = 4.10, CI = 2.50-6.73).
- Those who gambled prior to 18 years of age were over 5 times more likely than others to be pathological gamblers than to have no problem gambling (OR = 5.55, CI = 3.44-8.95).

### Gambling related criminal activity

- Over 33% of participants (n = 199) reported having participated in gambling-related criminal activity. Of this subsample 49% were pathological gamblers, 16% were problem gamblers, and 21% had some problem gambling. On average these participants committed 6 different types of gambling-related crimes. The percentages of participants who reported committing specific acts are displayed in the table below.

*Gambling-related Criminal Acts Committed by Gender (n = 199)*

Crime	Male		Female		Total	
	%	n	%	n	%	n
<b>Crimes against persons</b>						
Assault: Hurt or threaten another person	11.2%	48	1.2%	2	8.3%	50
<b>Crimes against property</b>						
Burglary: Breaking/entering to steal	11.6%	50	4.7%	8	9.6%	58
Larceny: Shoplifting, pick pocket, theft from a vehicle	17.7%	76	8.7%	15	15.1%	91
Fraud: Identity theft, illegal check or credit card use	12.6%	54	9.3%	16	11.6%	70
Embezzlement: Stole money/items from work	10.7%	46	5.8%	10	9.3%	56
Motor Vehicle Theft	6.5%	28	2.3%	4	5.3%	32
<b>Crimes Against Society</b>						
Gambling/hustling	26.3%	113	9.9%	17	21.6%	130
Sold/traded drugs	24.9%	107	17.4%	30	22.8%	137
Prostitution or pimping	8.1%	35	4.7%	8	7.1%	43
Another crime or one listed but don't want to say	14.9%	64	7.0%	12	12.6%	76

## Gambling within correctional settings

- Slightly over 35% (n = 215) of participants reported having gambled in jail or prison and of them 88.8% were male. Of those who gambled within correctional settings nearly 22% did so “very frequently”, 16.7% did so “frequently”, 36.7% did so “sometimes”, and 23.7% did so “rarely”.
- The most often cited motivations for gambling within correctional settings were boredom (to pass time), excitement, for food or commissary items, and for respect.

## Predictors of problem gambling severity

Nearly 50% of the variance in problem gambling severity could be explained by scope of gambling-related criminal activity, history of involvement with the criminal justice system and elevated alcohol tobacco and drug use while gambling, after statistically controlling for gender.

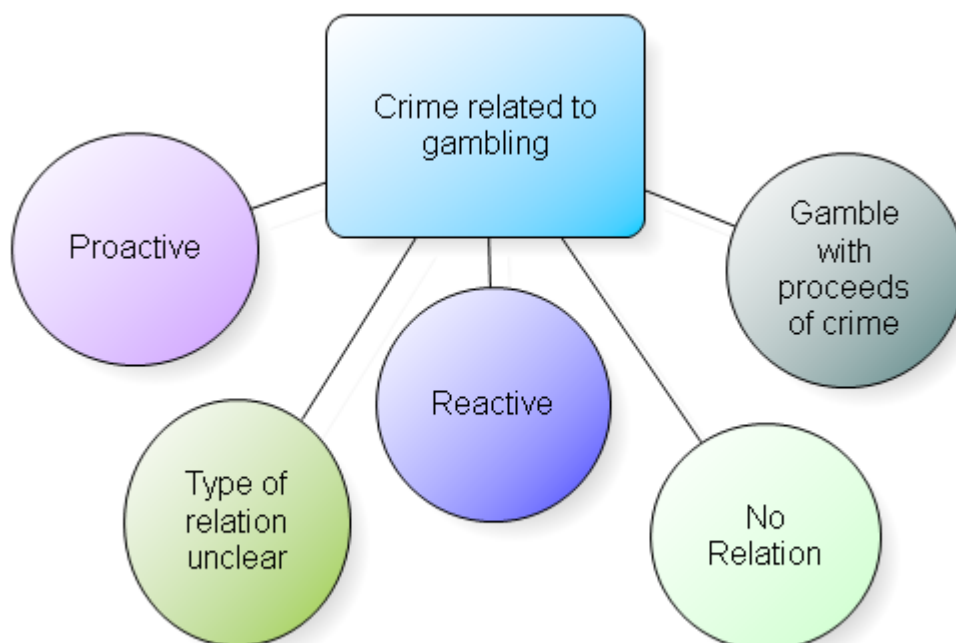
- Elevated levels of alcohol, tobacco and drug use during gambling activities predicted increased problem gambling severity. Specifically, each *SD* increase in scope of gambling-related crimes was associated with a 0.60 *SD* increase in PG severity. Additionally, each *SD* increase in elevated ATOD use during gambling was associated with a 0.20 *SD* increase in PG severity.
- Increased scope of gambling related activities predicted increased problem gambling severity. Specifically, each *SD* increase in scope of gambling-related crimes was associated with a 0.60 *SD* increase in PG severity.
- History of involvement with the criminal justice system was not independently associated with PG severity when also accounting for alcohol, tobacco, and drug use during gambling activities and scope of gambling related crimes.

## Qualitative analyses

Qualitative data provided in response to “How were these illegal activities related to gambling or paying gambling debts?” and “Is there anything else you would like to share regarding your experiences gambling or gambling debts?” provided insight into if and how participants perceived crime, substance use and gambling to be related.

- Slightly over 20% (n = 124) of participants answered these qualitative items. Of them 46.8 % were classified as PAGs, 14.5% as PGs, 17.7% as having some problem gambling, and 21.0% as having no problem gambling. This subsample was similar to the entire sample in gender and ethnic distribution.
- Through the analysis of this data 3 thematic categories emerged: 1) crime related to gambling, 2) gambling associated with substance use, and 3) gambling, crime and substance abuse are interrelated. Inter-rater reliability was assessed at 94% indicating a high level of agreement in regard to themes and subthemes among the two raters.

*Crime related to gambling.* Seventy-five respondents mentioned criminal activity associated with gambling. Five subthemes emerged within this category: 1) crimes that were proactive and committed explicitly to participate in gambling activities, 2) crimes that were reactive in that they were committed to recoup gambling losses, 3) the type of motivation was ambiguous, 4) gambling with proceeds from criminal acts that were not motivated by gambling, and 5) there was no relation between criminal activity and gambling.



Crimes that were committed for the purpose of obtaining money or property with which to gamble are considered proactive, or what Blaszczynski et al. (1989) would refer to as directly related to gambling. This subtheme was mentioned by 21 participants, of which 12 were classified as PAGs, 4 as PGs, 3 as having some problem gambling and 2 as having no problem gambling. The following quotes characterize participant responses regarding crime directly related to gambling:

I used to cash checks I knew were bad to play keno. I hustled pool to play keno. I've used drug money to play lottery tickets (Male PAG).

I was addicted to the GA lottery and I did a lot of illegal things to play (Male with no gambling problem).

Sometimes I just needed enough for a lottery scratch off ticket (Male PAG).

I sold dope or hustled to get money to gamble (Male PAG).

I took from stores to have money to play cards (Male PAG).

Crimes that were committed to pay gambling debts or to fulfill financial obligations that were to be covered with money that was spent gambling are considered reactive, or what Blaszczynski et al. (1989) would refer to as indirectly related to gambling. Twelve participants mentioned crime that

was indirectly related to gambling. Of them 9 were classified as PAGs, 2 as having some problem gambling and 1 as having no problem gambling. The following quotes characterize participant responses regarding crime indirectly related to gambling:

Lost the money [gambling] and when bill day came didn't have it to pay the bill (Male PAG).

I stole items from my job to pay a gambling debt (Male PAG).

I used money gained [from criminal acts] to pay off bookie debt (Male PAG).

Eighteen participants reported gambling with the profits of their criminal activity and did not indicate that this activity was motivated in any way by gambling. Fifteen of these participants specifically cited gambling with profits from dealing drugs. Of the participants who reported gambling with proceeds from crime 7 were classified as PAGs, 3 as PGs, 6 as having some problem gambling and 2 as having no problem gambling. The following quotes characterize participant responses regarding gambling with profits from crime:

I wasn't getting money to gamble but I did use it to gamble (Male PAG).

I would steal money and when I realized how much I had I decided to gamble (Male PAG).

I sold drugs and gambled w/it to double up b/c it was basically free and easy money to start with (Male PG).

A lot of my get high and hustling partners would gamble with the proceeds from our crimes (Male PAG).

I used to sell drugs but not for gambling but I went to Vegas with money I got from selling (Male with some gambling problem).

The more free money I obtained the more prone I would be to spend it gambling (Male with some problem).

I usually gamble more when I'm gambling with money that came easy. Easy come easy go per say (Male PAG).

Not having committed any gambling related crime was mentioned by 9 participants. Of these participants 3 were classified as PAGs, 2 as PGs, and 4 as having no problem gambling. The following quotes characterize participant responses that indicated that they never participated in gambling related crime:

I never did anything illegal to support my gambling debts. I have spent paychecks or borrowed from my girlfriend (Male PAG).

[In response to how crimes and gambling were related] they are not, I used cash- if I lost, I lost that was it (Male PAG).

Twenty-two respondents mentioned crime that was gambling related, yet it was unclear if this relation was direct or indirect in nature. The vast majority of these respondents were classified as PAGs (n = 14), 4 as PGs, 3 as having some problem gambling and 1 as having no problem gambling. The following quotes characterize participant responses:

I handle finance from work. I tried to use money from work and put it back later without permission (Male PAG).

Like when I used my mothers ID and bank card to get money out the bank (Female PAG).

I needed money to pay for my lifestyle – drugs and gambling was my lifestyle (Male PAG).

When you lost all of the money you have to find a way to get money (Male PAG).

*Gambling and substance use.* Twenty-nine participants stated that gambling associated with substance use. The following subthemes emerged: 1) gambling to obtain drugs, 2) co-occurring addictions, 3) gambling while high, 4) switching addictions, 5) belief at-risk to develop PG due to addictive nature, and 6) gambling led to substance use.



Eight participants cited gambling to obtain drugs. Of them 3 were classified as PAGs, 1 as a PG, 2 as having some problem gambling, and 2 as having no problem gambling. Interestingly, 2 of these participants indicated that gambling provided them with a means of obtaining drugs that was preferable to (or less risky than) other methods available to them. The following quotes characterize participant responses regarding gambling to obtain drugs:

I used money to gamble to make more money to get dope (Male with some problem gambling).

I basically liked to play card games and scratch lottery tickets ...as another outlet to getting drugs (when I won) so I would not have to prostitute my body (Female with some problem gambling).

Most of my illegal activities were to purchase drugs. After I got high with the money I have left I would gamble to get more money for more drugs, but gambling stopped me from doing other illegal activities that might lead me to jail or death (Male PAG).

Five participants suggested that they may have or have had a co-occurring addiction (4 were classified as PAGs and 1 as a PG). The following quotes characterize participant responses regarding co-occurring addictions:

My addiction consisted of ... dope, alcohol, and being able to play cards for money (Male PG).

I gambled shooting dice in the back of an AA meeting (Male PAG).

Gambling I have found can be just as addictive as the drugs I am addicted to. I found that when you get to the point where you can no longer control yourself because of the euphoria you get from both winning and losing. You seem to go through withdrawals much the same as substance withdrawal. Just not as bad physically but mentally is a bitch (Male PAG).

Five participants (1 PAG, 2 PGs and 2 with some gambling problem) felt they may be at risk to develop a gambling problem. The following quotes characterize participant responses regarding being at risk of PG:

I definitely think it would be a major problem for me if I did gamble much at all (Male PG).

I only played lottery scratch off tickets... because of my addict behavior and at times compulsion (Female with some problem).

Five participants cited gambling while high. Of them 3 were classified as PAGs, 1 as a PG, and 1 as having some problem gambling. The following quotes characterize these participant responses:

I basically liked to play card games and scratch lottery tickets when I got high for recreation (Female with some problem gambling).

The only time I went gambling was when I was geeked up on meth (Male PAG).

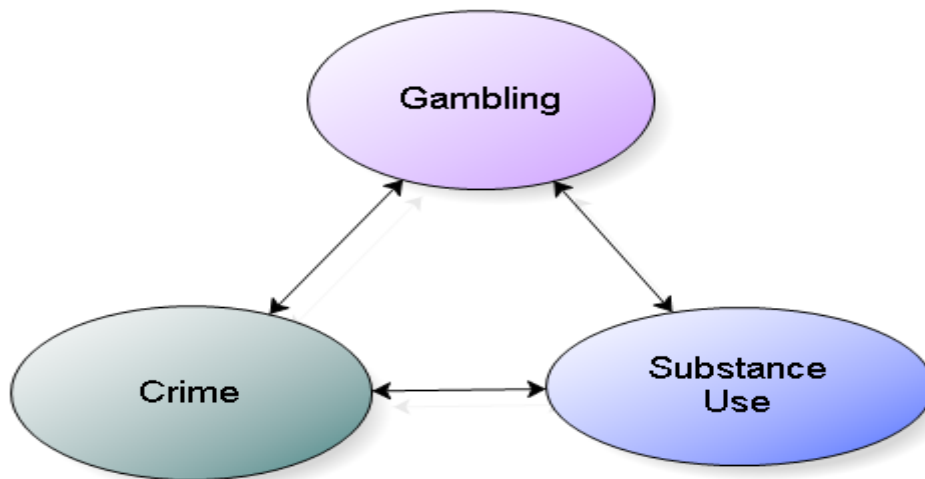
Four participants alluded to the phenomenon of switching addictions. Of them 3 were classified as PAGs and 1 as having some problem gambling. Specifically, 3 of these participants indicated that they switched from gambling addiction to drug addiction and one mentioned an increase in desire to gamble since abstaining from drug use. The following quotes characterize participant responses regarding switching addictions:

Gambling on the lottery was an obsession until crack cocaine took over the picture 5 years ago (Male PAG).

Although I don't gamble much since I have been clean the desire is greater (Male PAG).

One participant, a male classified as a PAG, cited using drugs as a result of gambling. This participant stated: “[Gambling] caused me to use drugs and hurt everyone around me”.

*Gambling, substance use and crime all interrelated.* Seven participants suggested that gambling, crime, and substance use are all interrelated.



Of them 4 were classified as PAGs, 2 as PGs and 1 as having some problem gambling. The following quotes characterize participant responses regarding the interrelation of these behaviors:

it's just like a bad circle of addiction the more you gamble the more you use drugs and the more you get addicted, the deeper you go the harder to quit. After a while you are willing to do whatever it takes to come up with the money to gamble more (Male with some problem gambling).

[Crime was related to gambling in that] I needed money to pay for my lifestyle – drugs and gambling was my lifestyle (Male PAG).

Selling drugs to have money to bet, gambling to get money to buy drugs (Male PG).

I would sell pills and dope to get my money so I could win back my money (Female PAG).

## Discussion and Implications

The primary goals of this study were to assess the lifetime prevalence of problem gambling among adult drug and DUI court participants; to examine the relation between the scope of gambling-related crime, involvement with the criminal justice system, alcohol, tobacco and drug use and problem gambling severity; and to apply contextual information gleaned from qualitative data to enhance what is known about how gambling, crime and substance use are interrelated. The results suggest that the prevalence of problem gambling within this population may be the highest of any population that has been assessed, and that some subgroups may be higher risk than others. Furthermore, scope of gambling-related criminal activity and elevated levels of alcohol, tobacco and drug use were significant predictors of problem gambling severity, whereas extent of involvement with the criminal justice system was not. Moreover, the data highlighted the interrelation between gambling, crime, and substance use, and suggest that these behaviors may lead to and/or reinforce one another.

The findings point to the importance of dedicating resources to this issue allowing for the widespread assessment of problem gambling among substance-abusing offenders, and for the development, evaluation, implementation and dissemination of evidence based best practices for preventing and treating problem gambling. Furthermore, the findings suggest that interventions intended to address problem gambling, substance use or criminal activity may lead to the best outcomes when they incorporate addressing all three of these maladaptive and addictive behaviors. Based on the findings from this study, holistic interventions may be needed to reduce the incidence and prevalence of not only problem gambling, but also of co-occurring substance abuse and criminal activity.

- What is generally found in regard to the distribution of problem gambling categories is a decrease in prevalence as problem gambling severity increases; the majority of those with a gambling problem are sub-clinical. However, what was found within this population was an excessively high rate of pathological gambling, the most severe category of problem gambling. The more severe the gambling problem, the more negative outcomes and social costs are associated with it. The heightened severity of problem gambling among drug court clients may be explained by the presence of not one, but two potent risk factors. It could be that the risk associated with these factors is additive, or may interact greatly increasing the risk of a severe gambling problem.
- The high prevalence of problem gambling, coupled with the increased severity of problem gambling found within this population highlight the need to dedicate resources not only to assessing drug and DUI court clients for problem gambling, but also to provide treatment as indicated. It is likely that investments in successfully addressing this issue within this population will more than pay for themselves by reducing the lifetime costs associated with problem gambling. Moreover, prevention programs should be targeted at substance abusing offenders in particular as they may be most at risk of developing a severe gambling problem.
- The prevalence of problem gambling among those who reported only playing the lottery/scratch offs was roughly 13% and over 21% were assessed as having some problem gambling. While these rates are lower than those found within the entire sample, they are still much higher than what is found within the general population. Therefore, engaging in only legal gambling activities should not be considered a buffer for the development of problem

gambling. Substance abusing offenders who solely participate in state run gambling activities are also at increased risk of problem gambling and warnings about the potential dangers of participating in such activities should be incorporated into prevention and treatment programs.

- The results indicated that ethnic minorities, those who were in Drug as apposed to DUI court, and those who identified as males opposed to females had significantly higher problem gambling severity and may be in most need of prevention and treatment interventions for PG. Therefore, interventions should be developed that are culturally sensitive and gender responsive, and that address the issues related to addiction that have been found to be salient among drug court clients.
- Scope of gambling related crime was a significant predictor of problem gambling severity. This is important as the literature tends to focus solely on white collar crimes as indicators of problem gambling. The results from the present study highlight the need to expand the focus to the commission of crimes against persons, property, and society as possibly being gambling-related. It may be that as problem gambling severity increases a larger number of illegal methods of obtaining funds to gamble with are explored. This finding points to the importance of screening for problem gambling among anyone entering the criminal justice system, especially those who have been charged with numerous types of criminal acts. Such practices may lead to the identification of individuals with the most severe gambling problems, thus providing an opportunity for intervention.
- Elevated levels of alcohol, tobacco and drug use during gambling activities was a significant predictor of problem gambling severity and should be considered a risk factor for problem gambling, perhaps due to impaired judgment. Therefore, interventions may benefit from incorporating mention of the risk of participating in multiple potentially addictive behaviors at once, as well as the dangers of participating in any risky behaviors when one's judgment is impaired.
- In summary, the data suggest that gambling, crime, and substance abuse are all interrelated. These behaviors appear to directly or indirectly reinforce one another other and/or increase the likelihood of the others co-occurring. This finding has implications for assessment, prevention, and treatment. Specifically, the presence of any of these behaviors should serve as an indicator that the others may be present and screening should be implemented. In addition, comprehensive prevention programs that address gambling, crime and substance use should be targeted at individuals with indicators of any these behaviors, as they are at increased risk of the other behaviors becoming problematic. Finally, treatment programs for substance abuse or PG, as well as intervention designed to address crime should incorporate components which address substance abuse, gambling and crime. The successful prevention and/or treatment of all or any of these behaviors may positively impact the prevalence and incidence of the others.

### *Conclusions*

Substance abusing offenders are a unique and understudied population, and possibly the most at-risk of developing PG. The prevalence of PG among drug court clients is one of the, if not

the, highest found in any population. Furthermore, there is a complex relation between crime, ATOD and gambling. These findings suggest that 1) policy changes should be made within the criminal justice system regarding PG, 2) increased resource dedication is needed to adequately address PG within this population, and 3) components addressing PG, substance use and crime should be incorporated into PG interventions targeted at substance abusing offenders.

- Policy should be established which mandates that PG is assessed upon intake into the criminal justice system. This will allow for the burden of PG within this population to be estimated, which would inform resource dedication while also allowing for treatment to be provided to those identified as having a gambling problem. In addition, it should be mandated that comprehensive prevention programs that address gambling, crime and substance use be administered to substance-abusing offenders. Furthermore, information regarding treatment to address all of these issues should be made available in correctional settings, as entrance into the criminal justice system provides an opportunity to intervene with those at increased risk of PG.
- Increased resources dedicated to addressing PG are needed to successfully impact the problem. The Substance Abuse Mental Health Services Administration (n.d) cites a lack of resources dedicated to PG as a barrier to providing services as this limits adequate screening and the availability of treatment. Furthermore, to provide adequate treatment funds are needed for workforce development, which would allow for clinicians working with substance abusing offenders to become knowledgeable about the indicators of and treatment for PG. There are a limited number of professionals trained in PG treatment, and experience treating other addictive behaviors is not sufficient to successfully treat PG (SAMHSA, n.d.).
- Additionally, funds are needed for the development, implementation, and evaluation of PG interventions, particularly to establish and disseminate evidence based best practices in the prevention and treatment of PG. The results of this study suggest that PG interventions must be developed that are both gender responsive and culturally sensitive, as PG severity differed by these grouping variables and such approaches have been found to be more successful than those that are not designed with population specific needs and appropriateness in mind. Furthermore, the results suggest that a harm reduction approach to PG may be most suitable for this population, yet these assertions must be assessed systematically through research.
- The results of this study converge to highlight the importance of developing holistic interventions that address PG in addition to multiple other addictive and maladaptive behaviors targeted at substance abusing offenders. Such preventative and treatment interventions make the most of limited resources and may lead to the most positive outcomes, such as reduced criminal activity and co-morbidity. These interventions must also be evaluated in an effort to establish evidence based best practices in preventing and treating addiction in general, rather than focusing on a single addiction. Taking a more broad view of addiction in prevention and treatment initiatives may lead to better outcomes, not only by treating dysfunction but also by potentially preventing associated health compromising behaviors.

### *Limitations*

The cross-sectional design provides information about the association between PG and its correlates at one point in time; researchers do not know how this impact might evolve over time. Furthermore, the measure used to assess PG severity assessed lifetime prevalence, but offers no information about the current prevalence of PG is within this sample. Additionally, the crimes for which participants were mandated to these alternative courts were not assessed or controlled for potentially leading to misspecification of the model.

The self-report measure utilized leaves room for bias, as participants may inaccurately report perceptions of gambling and related variables. Participants were recruited and volunteered to participate, those who declined may be systematically different than those who agreed to take part in the study. Participants were only recruited from drug courts in Georgia, and only those courts that agreed to allow researchers to recruit their clients. Therefore, the sample obtained may not be representative of the population of all drug court clients. Furthermore, gender identity and individual differences in susceptibility to demand characteristics were not assessed or controlled for possibly compromising validity of the research.

Finally, participants were recruited from multiple drug courts that may differ in program implementation and fidelity to the drug court model. Some of these courts may include the mention of PG during treatment, possibly increasing awareness of some participants that they have a problem gambling. Potential differences in curriculum, implementation, fidelity, and client dosage of the intervention were not assessed, nor were they controlled for. Therefore, some of the variance in measured variables may have been due to contextual differences between the courts, potentially affecting the results.

### *Future Directions*

- Future efforts should be made to engage policy makers to make changes to address PG within the criminal justice system. Future research endeavors should examine the impact of any policy changes regarding PG that may occur. Specifically, screening should be mandated and the burden of PG assessed among those involved in the criminal justice system, and the impact of any preventative or treatment interventions on the incidence and prevalence of PG should be examined.
- Additionally, the prevalence of problem gambling among those within correctional settings should be assessed, as should population specific correlates of problem gambling. Results of quantitative and qualitative assessments of the motivation to gamble, as well as the positive and negative outcomes associated with gambling within these settings could be utilized to inform preventative and treatment interventions.
- Furthermore, this study should be replicated in locations in which a larger scope of gambling activities are legally available, as availability of gambling opportunities has been found to impact the prevalence of PG.
- Additionally, the relation between crime and gambling should be assessed by methods in addition to self-report, such as assessing court documents and perhaps interviewing

employers, and family members as key informants. Obtaining such information through multiple sources may provide a more accurate estimate of this relation.

- Moreover, additional research should assess the relation between crime, substance use, gambling and additional variables which may be risk factors or highlight areas to intervene. For example, further inquiry into the relation between problem gambling and intimate partner violence, as well as other risky behaviors may provide useful information.
- A benefit-to-cost analysis should be conducting with regard to providing treatment for PG among substance abusing offenders using recent figures. The costs of not treating PG are needed to persuade policy makers to address PG and to get it on the agenda along with other addictive behaviors when funding decisions are being made.

Gambling problems negatively affect not only the individual with the problem, but their families and society. This problem has been found to be preventable and. Substance-abusing offenders have a high, if not the highest prevalence of PG of any population. Successful prevention and treatment efforts targeted at this population may not only reduce the incidence and prevalence of PG, but may also reduce associated criminal activity and substance use. The results of this study highlight the need to address PG along with criminal activity and drug use among offenders with a substance abuse problem. Through continued work in areas of prevention, policy, and research and the rate of PG can be reduced, as can the negative impacts that are associated with this problem.

## Appendix

## Method

### *Sampling*

Efforts were made to ensure that the sample was representative of the population of drug court clients in the state. Eighteen of the 41 operational courts (44%) allowed researchers to attempt to recruit their clients to participate in the study. Participants were recruited from 47% of all drug courts (15 of 32) and 33% of all DUI courts (3 of 9). Georgia drug courts serve 50 counties and participants were recruited from courts serving 48% of all counties served. The University of Georgia's College of Family and Consumer Sciences (2008) identified five types of counties in Georgia, and participants were recruited from courts serving each of these types (urban, urbanizing, suburban, rural growth and rural decline).

### *Participants*

A convenience sample of 602 drug/DUI court participants was recruited to participate in the study. The majority of participants were male (71.4%) and age ranged from 18 to 63 with an average of 36 years ( $SD = 10.60$ ). Of the participants 39% were under the age of 30, 25% between 31 and 40, and 36% were over 40. The majority of respondents identified as White (52.7%) or Black (36.95%), followed by American Indian (3.0%) and Latino(a) (2.8%). Nearly 23% of participants had not obtained a high school diploma (or equivalent), 41% completed high school or obtained their general equivalency diploma (GED), almost 28% attended college, and roughly 8% obtained a bachelor's or graduate degree. Most were employed as skilled workers/tradesman (36.4%), manual laborers (27.6%), or cited being managers/professionals (11.1%). Just over 10.0% reported having ever served in the military.

Nearly 7.0% of respondents cited currently having a gambling problem and 7.3% of participants reported being interested in obtaining help for a gambling problem. A small percentage of respondents reported having ever asked someone for help or having been to GA to address their gambling problem (2.5% and 2.0%, respectively). Almost 20% (19.6%) of respondents reported that either one or both of their parents had a history of PG. Nearly 60% (57%) of respondents cited having a PG within their social network and roughly 15% had more than one such person.

The majority of respondents were drug court clients (87.4%) whereas 12.6% were DUI court clients. The average number of arrests reported by participants was 9.02 ( $SD = 12.41$ ). On average participants reported having 4.42 misdemeanor convictions ( $SD = 8.43$ ) and 2.01 felony convictions ( $SD = 3.31$ ). Participants indicated an average of 0.38 ( $SD = 1.77$ ) of their arrests and convictions were gambling-related.

Just over 78% of participants reported smoking or using other tobacco products regularly and over 58% reported having done so while gambling. Over 52% reported having used drugs or alcohol while gambling and nearly 55% cited having gambled drunk or high. Elevated levels of smoking, drinking, and drug use during gambling activities were reported by roughly 30% of participants (36.2%, 29.6%, and 27.1%, respectively).

### *Instrument*

The Georgia Therapeutic Court Gambling Assessment (GTCGA) was developed by the researcher for use in assessing problem gambling and related behaviors within adult drug and DUI court populations. This composite measure consists of 66 items, including 10 demographic items; the South Oaks Gambling Screen (SOGS; Lesieur & Blume, 1993) and the Lie/Bet

(Johnson, Hamer, & Nora, 1998) to assess PG prevalence and severity; as well as items assessing known correlates of problem gambling such as participation in gambling related crimes, history of involvement with the criminal justice system and alcohol, tobacco and drug use (ATOD) while gambling. A SOGS score over 4 indicated PAG, a score of 3 to 4 indicated PG, and a score of 1 or 2 indicated some problem with gambling (or what is often referred to as at-risk for PG). For the Lie/Bet a response of “yes” to either or both of the 2 questions indicated that a gambling problem may be present. Open ended questions were included to allow participants to share information that they regarded as important, and to provide context to responses to close ended questions. These items included “How were these illegal activities related to gambling or paying gambling debts?” and “Is there anything else you would like to share regarding your experiences gambling or gambling debts?”

#### *Procedure*

After obtaining IRB approval drug courts were recruited to participate by the researcher contacting Judges and court coordinators. Participants were recruited from participating drug and DUI courts. Informed consent was obtained prior to the questionnaire being administered to participants in private rooms at their respective courthouses or court ordered treatment facilities by the researcher. Each participant received a \$10.00 gift card as compensation for completing the survey.