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Gender Differences in Gambling-Related Harms and Gambling-Motivated Crime

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Abstract: An increase in legal avenues of gambling in the United States has led to growing concern over gambling-related harms and criminal consequences associated with Gambling Disorder. Data for the current study is drawn from a survey of Gambler's Anonymous members. Prevalence of social, economic, and criminal/legal gambling-related harms is considered. Additional analysis includes whether gambling-related harms differ based on gender. Findings include substantial similarities between men and women concerning the types and prevalence of social, economic, and criminal/legal harms. Results offer increased knowledge to better understand the progression of Gambling Disorder which may help explain and potentially prevent gambling-motivated crime.

Keywords: Gambling, Gender, Crime, Harms, Gambling Disorder.

Introduction

The Diagnostic Statistical Manual of Mental Disorders fifth edition (DSM-5) defines Gambling Disorder as “a persistent and maladaptive behavior which causes clinically significant impairment or distress” (Greco & Curci, 2017, p. 920). People with Gambling Disorder often face difficulties in relationships, physical and mental health, employment, school, financial struggles, and legal troubles (Eby et al., 2015; Dowling et al., 2016; Kalischuk et al., 2007; Latvala et al., 2019; Raisamo et al., 2013; Wan, 2012). The effects of these problems can escalate to the point that people become suicidal or so desperate for money that they commit an acquisitional crime (Adolphe et al., 2018; Banks, 2017; Banks & Waugh, 2019; Binde, 2016; Moghaddam et al., 2015; Nowak & Aloe, 2014) (See note 1). Among gamblers who sought help for their addiction, studies consistently reveal that approximately half self-report commission of a crime to keep gambling and/or pay off gambling “debts” (Adolphe et al., 2018; Banks & Waugh, 2019; Binde, 2016; Blaszczyński & McConaghy, 1994; Blaszczyński, McConaghy, & Frankova, 1989; Zorland et al., 2008). The existing literature on gambling-motivated crime, however, does not provide a clear understanding of the pathway from Gambling Disorder to gambling-motivated crime (Adolphe et al., 2018; Banks, 2017; Banks & Waugh, 2019). Additionally, research on Gambling Disorder generally should consider the impact that a person’s gender (See note 2) may have on their experiences of the social, economic, and legal gambling-related harms. For example, research shows that rates of Gambling Disorder among women are increasing more rapidly than among men (McCarthy et al., 2018). Likewise, while women tend to start gambling later in life, they appear to advance to gambling addiction faster than men (Afifi et al., 2010; Crisp et al., 2000; Hing et al., 2016; Nelson et al., 2006).

Given that little research on gambling-motivated crime has been conducted in over a decade (with the exception of a meta-analysis by Adolphe et al., 2018) and the increasing amount of problem gambling research demonstrating the need to examine gambling-related harms related to gender, this study addresses six questions related to these issues.

1. Do social and economic gambling-related harms vary by gender?
2. Does gambling-motivated crime vary by gender?
3. How are social and economic gambling-related harms related to gambling-motivated crime?
 - a. Does the relationship between social and economic gambling-related harms and gambling-motivated crime vary by gender?
4. What types of gambling-motivated crimes are most likely to lead to a criminal conviction?
 - a. Does the relationship between crime type and conviction vary by gender?

Although anecdotal evidence points to a link between gambling-related harms and gambling-motivated crime, understanding the progression of Gambling Disorder to criminal activity has not yet been established through empirical evidence (Aldophe et al., 2018; Banks, 2017). Research on addictions more generally (Jones-Sanpei & Nance, 2020; Walters, 2021; White et al., 2019), provides insights into how a person who has an addiction may turn to crime as a means of furthering their addiction. By examining the prevalence of social and economic gambling-related harms alongside their relationship to legal consequences and their variation by gender, it may be possible to gain a deeper understanding of these processes, as they relate to gambling, as well as provide valuable information to health care providers and criminal justice professionals.

Gambling Disorder and Gender

Since the mid 1990's, research on gambling behavior and risk increasingly focused on women and included gender as an explanatory variable. The need to include gender in the study of gambling was due, in part, to the expansion of legalized gambling throughout the U.S., which resulted in a larger percentage of women becoming frequent gamblers and developing Gambling Disorder (LaPlante et al., 2005; McCarthy et al., 2019; Volberg, 1994; Volberg, 2003). Several important differences between women and men were found based on gender. For example, females generally started gambling later in life and gambled for different reasons, as women were more likely than men to gamble in order to "escape" problems in their life (Afifi et al., 2010; Blanco et al., 2006; Crisp et al., 2000; Hing et al., 2016; Holdsworth et al., 2013; Nelson et al., 2006; Sacco et al., 2011; Schull, 2002; Weatherly & Cookman, 2014), such as loneliness, boredom, and stress (Blanco et al., 2006; Hing et al., 2016; Sacco et al., 2011). Women were also at the same level or more likely than men to experience comorbidities (such as depression and/or substance abuse issues) and gambling-related harms (Holdsworth et al., 2013; McCarthy et al., 2019; Schull, 2002). Historically, there were additional differences between male and female gamblers. For example, demographically, frequent women gamblers were more likely to be married or never married (rather than separated or divorced), had lower educational attainment, and had lower annual income than frequent male gamblers (Afifi et al., 2010; Crisp et al., 2000; Nelson, et al., 2006; Potenza et al., 2002). While gender was an increased focus, reviews of the existing literature found many holes still existed in understanding gender differences in understanding gambling behavior and addiction (Holdsworth et al., 2013; McCarthy et al., 2019).

In addition to studies showing gender differences in gambling behavior and risk for Gambling Disorder, research has consistently shown differences between men and women in crime commission. Research persistently shows that men commit more crime than women (Adolph et al., 2018; Kruttschnitt, 2013). Some scholars have found that there are

differences in the paths and motivations males and females take to commission of crime (Daly, 1992; Wilson & Widom, 2009), while others have shown no differences in those paths (Belknap & Holsinger, 2006; Johansson & Kempf-Leonard, 2009; Topitzers et al., 2011). These studies, however, have not considered gambling addiction as a motivation for crime commission or as a potential element in the pathway toward crime, nor whether men and women committed gambling-motivated crimes at similar/different rates. In fact, there are no known studies that look at the pathway from social and economic gambling-related harms to gambling-motivated crime based on gender. The current research fills some of these gaps by examining specific examples of social and economic gambling-related harms and their relationship with the commission of gambling-motivated crime.

Gambling-Motivated Crime

The term “gambling-motivated crime” is utilized throughout this manuscript in order to separate the types of crimes committed as a result of gambling addiction from other types of crimes related to gambling. Historically, there are generally three categories of crimes related to gambling (Banks, 2017). First are crimes associated with illegal gambling, including offenses such as individuals gambling where not yet legal within a jurisdiction, illegal gambling establishments and their proprietors, as well as gambling related to organized crime. The second type of crime related to gambling are crimes that occur in and around brick-and-mortar gambling establishments (whether legal or not) and are often categorized as property crimes or crimes of convenience (both non-violent and violent). The third type of crime, however, are those crimes produced by a cycle of addiction wherein gamblers acquire debt from losing and must then gamble to earn money to pay off these debts and stay in action, all the while remaining stuck in this pattern and unable to desist, ultimately depleting all avenues to legal access to funds, resulting in gambling-motivated crimes (Banks, 2017; Banks & Waugh, 2019; Binde, 2016). Therefore, gambling-motivated crimes are primarily non-violent, financial crimes that are committed in order to pay off gambling “debts” (See note 3) and/or continue gambling (Aloplhe et al., 2018; Banks, 2017; Blazynski et al., 1989; Clark & Walker, 2009; Zorland et al., 2008). While studies consistently reveal that over half of those that seek help for gambling will self-report commission of a crime (Adolphe et al., 2018; Binde, 2016; Blaszczyński & McConaghy, 1994; Blaszczyński, McConaghy, & Frankova, 1989; Zorland et al., 2008), as many as two-thirds of the most severe gambling addicts report committing crimes (Blaszczyński et al., 1989; Lesieur, 1998; Zorland et al., 2008). Furthermore, studies among the prison population consistently reveal a high correlation between gambling disorder and commission of gambling-related crimes (see e.g., Abbott et al., 2005; Adolphe et al., 2019; Banks et al., 2020; McEvoy & Spirgen, 2012; Turner et al., 2009; Turner et al., 2013). The gambling disorder/crime relationship is also evident in early studies of

individuals who attended Gamblers Anonymous (GA) (See note 4). For example, a study of 184 GA members found that 56% admitted to stealing in order to finance their gambling (Lesieur, 1989). Prior to the current study, it has been several decades since a study measured gambling-motivated crimes among GA members, while none could substantially analyze differences based on gender due to low female participation at the time.

The most common types of gambling-motivated crimes are embezzlement, larceny, theft, robbery, and counterfeit currency, most often committed against family members, friends, or employers (Abbott & McKenna, 2005; Banks, 2017). As such, it is likely that most of these infractions are seen as crimes of trust. Furthermore, Sakurai and Smith (2003) examined serious fraud prosecutions to determine primary motivations and found that, after greed, gambling was the second most frequent motivation. While there may be some problem gamblers who commit other types of crimes, the prevailing type of offense by problem gamblers are acquisitive (or monetary) in nature (Adolphe et al., 2018; Crofts, 2003; Sakurai & Smith., 2003; Smith et al., 2003). However, in their meta-analysis of research looking at crime and Gambling Disorders, Adolphe et al., (2018) emphasize that few studies have examined the relationship between violent crimes and Gambling Disorder, encouraging researchers to assess this relationship. Furthermore, while the connection between Gambling Disorder and crime is generally accepted, there are only proposed assertions as to why gambling-motivated crimes are committed (Adolphe et al., 2018; Banks, 2017). To assist in the development of gambling treatment programs and potentially gambling treatment diversion courts for those accused of gambling-motivated crimes, it is imperative that more studies focus on the relationship between gambling-related harms and gambling-motivated crime, including prevalence, types of crimes (financial and violent), and motivations (Banks, 2017; Moss, 2016). The current study helps in better understanding this relationship.

Data & Methods

This study analyzes data drawn from a survey of active Gambler's Anonymous members. In total, 195 surveys were completed (N=195) at a large Midwestern United States GA conference which draws approximately 300 people annually. Surveys were distributed to all attendees during the meeting with drop boxes provided in convenient locations to allow for anonymous survey collection. This allowed for more open responses to potentially sensitive information regarding history of gambling and criminal activity.

The survey consisted of questions on gambling behaviors and history; social, economic and legal gambling-related harms; criminal behaviors; and demographics. Gender was measured by asking respondents to self-identify as male or female (See note 5). Modified versions of the South Oaks Gambling Screen (SOGS) (Lesieur & Blume, 1987) and Lie/Bet Screen (Johnson et al., 1988) were included to assess gambling

history and behaviors (See note 6). Respondents were also asked which specific crimes they committed (including financial and violent) in their lifetime related (or not) to their gambling. The specific financial crimes were: writing a bad check, stealing, forgery, embezzlement, taking out a credit card in another's name without permission, using someone else's credit card without permission, and writing a check from someone else's account without permission. Additional crimes included: assault, use of and dealing drugs, and using a gun to obtain money. Participants were also asked about past criminal convictions (See note 7) and whether these crimes were motivated by gambling.

Analysis

Chi-Square and T-Tests were performed to assess differences in demographics and gambling-related harms based on gender. Binary Logistic Regression was executed to assess which factors predicted whether social and economic harms would lead to gambling-motivated crime and what types of financial crimes motivated by gambling would predict conviction of a crime. Additional analysis included assessing the relationship between the amount of social and economic gambling-related harms experienced and commission of crime. Marginal effects were calculated using the margins function in STATA 17.

Results

Demographics were assessed to analyze whether there were demographic differences between male and female respondents. Table 1 provides the breakdown of each demographic category by gender. Overall, the sample tended to be older, with 27% of men and 35% of women in the 55 to 64 age group and 26% of men and 26% of women in the over 65 group. There is a significant difference in the current age between men and women in the sample ($\chi^2=9.929$, $p=0.042$). Approximately 90% of both men and women are White, with 11% of men and 10% of women non-White. There is a significant difference ($\chi^2=17.523$, $p=0.025$) in educational attainment based on gender. The female sample is more educated, with 24% holding an advanced degree as compared to 15% of the male sample. The male sample tended to earn a current higher income, with 22% of the male sample reporting earning over \$150,000 annually, while slightly less than 3% of the female sample reported that income. The income differences were significant ($\chi^2=20.192$, $p=0.003$). The male and female samples were significantly different ($\chi^2=11.932$, $p=0.018$) in terms of current marital status as well with about 57% of the male sample being currently married/partnered as compared to 35% of the female sample. Finally, current employment status was not significantly different between the male and female samples, with the majority of both (60% of men and 51% of women) employed full-time.

TABLE 1: Sample Characteristics by Gender (sample proportions)

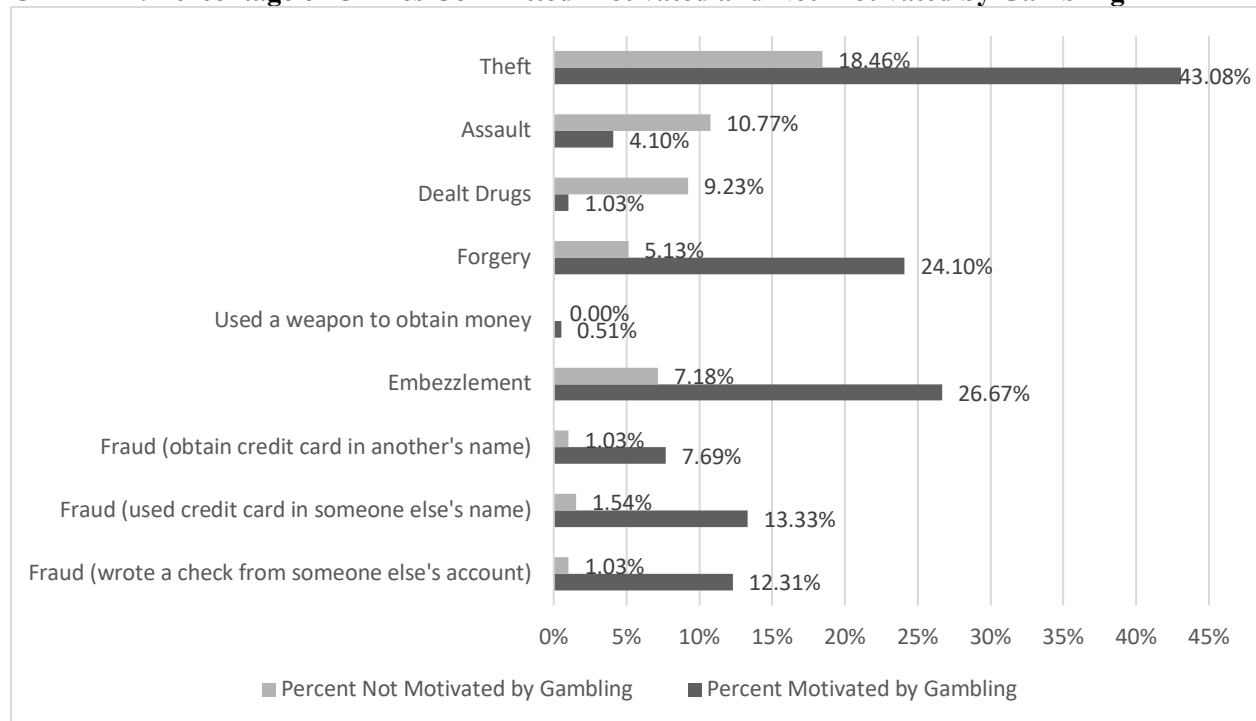
Variable	Men (N=87)	Women (N=108)
Current Age Group		
Under 35	0.149	0.074
35 to 44	0.161	0.065
45 to 54	0.149	0.25
55 to 64	0.276	0.352
65 or Over	0.264	0.259
Race		
Caucasian	0.918	0.907
Other	0.082	0.093
Highest Education Achieved		
Some High School or H.S. Graduate	0.161	0.167
Some College Credit, no degree	0.218	0.213
Trade/Tech/Vocational	0.046	0.093
Associate Degree	0.069	0.148
Bachelor's Degree	0.356	0.139
Advanced Degree (Masters, Prof., Doctorate)	0.149	0.241
Current Income		
<\$25,000	0.094	0.104
\$25,000 to \$34,999	0.094	0.179
\$35,000 to \$49,999	0.177	0.160
\$50,000 to \$74,999	0.153	0.226
\$75,000 to \$99,999	0.153	0.151
\$100,000 to \$149,999	0.106	0.151
\$150,000 or more	0.224	0.028
Marital Status		
Single	0.221	0.234
Divorced or Separated	0.174	0.299
Married or Domestic Partnership	0.570	0.355
Widowed	0.035	0.112
Employment Status		
Employed Full-Time or Full-Time Student	0.598	0.509
Employed Part-Time	0.126	0.102
Retired	0.184	0.278
Not Employed or Unemployed	0.092	0.111
Age of Gambling Onset		
Under 18 Years Old	0.563	0.159
18 to 20 years	0.161	0.056
21 to 24 years	0.069	0.206
25 to 34 years	0.081	0.159
35 to 44 years	0.058	0.206
45 to 54 years	0.046	0.159
55 to 64 years	0.023	0.047
Age 65 or older	0.000	0.009

The age at which the respondents first began gambling was significantly different ($\chi^2=51.55$, $p=0.000$) between the male and female

respondents, with men starting much younger. Specifically, 56% of men and 16% of women reported starting prior to the age of 18.

Given prior research (Abbott et al., 2005; Abbott & McKenna, 2005) that suggests gambling-motivated crime is committed by individuals with an existing propensity to commit crime, with gambling used as an excuse rather than the motivation, analyses were conducted to determine whether respondents who committed gambling-motivated crimes had also committed other crimes. Additionally, analyses examined the types of crimes committed by motivation. Chart 1 shows the types of crimes participants admitted to committing over their lifetime, regardless of whether they were ever formally charged with the offense. Those motivated by gambling were primarily acquisitive in nature, and while few crimes were committed by participants unrelated to gambling, they appear to primarily differ in type (other than theft albeit at a much lower percentage). The most common gambling-motivated crimes were theft (43%), embezzlement (27%) and forgery (24%), whereas the most common non-gambling-motivated crimes were theft (18%), assault (11%), and dealing drugs (9%).

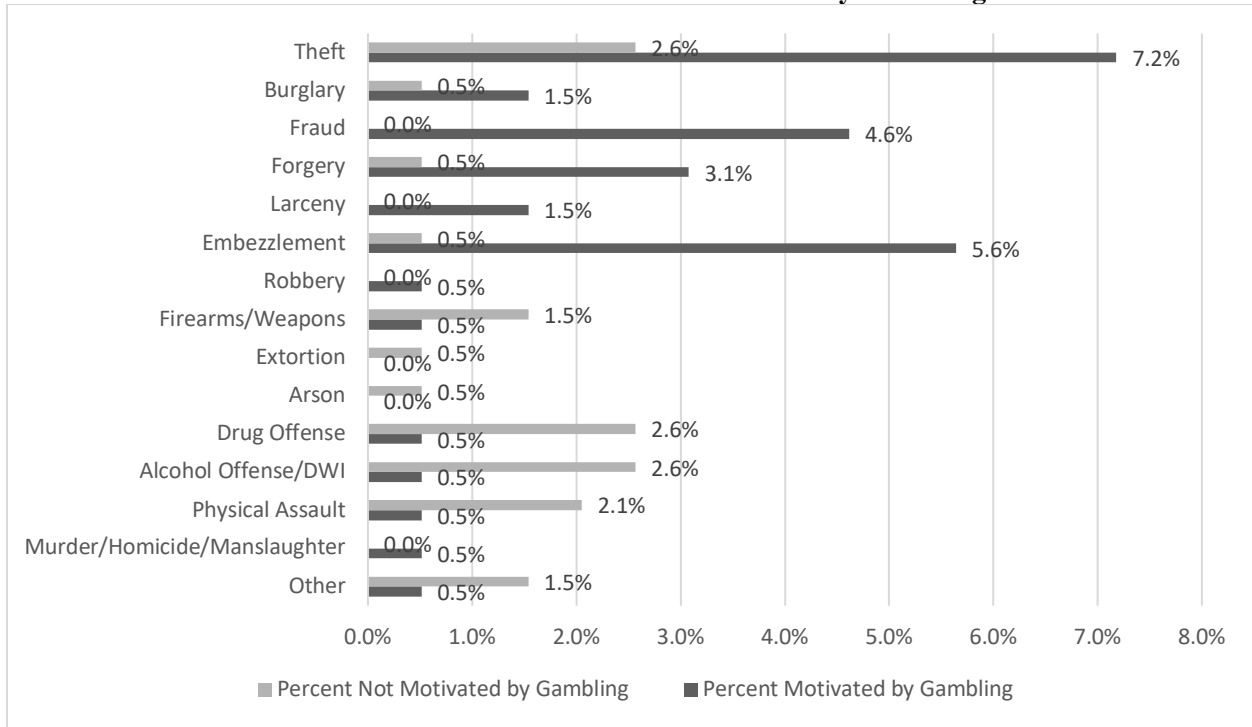
CHART 1: Percentage of Crimes Committed Motivated and Not Motivated by Gambling



Participants were also asked about past criminal convictions and whether these crimes were motivated by gambling. As shown in Chart 2, most participants were never convicted of any crimes. The types of convictions motivated by gambling differ from those types of conviction for crimes not motivated by gambling. Convictions for crimes motivated by gambling were primarily theft (7%), embezzlement (6%) and fraud (5%).

Participants' convictions for crimes not motivated by gambling were 3% or less, with most being theft, drug offenses, or alcohol related offenses.

CHART 2: Percent of Convictions Motivated and Not Motivated by Gambling



Consequences of Problem Gambling

Since few studies looked specifically at social, economic, and legal/criminal gambling-related harms, participants were assessed on whether they experienced such harms. Table 2 summarizes the prevalence of each type of consequence measured based on gender.

TABLE 2: Consequences of Problem Gambling by Gender

Social & Economic Consequences	%	Male %	Female %	Chi-Square (gender)
Lose Relatives	46.67	50.57	43.52	0.964
Lose Education Opportunity	19.49	26.44	13.89	4.836*
Lose Job	32.82	35.63	30.56	0.563
Borrow Money to Gamble or Pay Gambling Debts	80.00	80.46	79.63	0.021
Take out Pay Day Loan	37.44	35.63	38.89	0.218
Advance on Retirement	48.72	49.43	48.15	0.032
Advance from Employer	25.64	25.29	25.93	0.01
Credit Card Advance	77.95	70.11	84.26	5.608*
Lose House	21.54	24.14	19.44	0.628
Vehicle Repossessed	10.77	6.9	13.89	2.452
File for Bankruptcy	28.72	26.44	30.56	0.399
Spend One or More Nights Homeless	8.21	12.64	4.63	4.109*
Have a Civil Liability	6.67	5.75	7.41	0.214
Criminal Consequences				
Commit Crime	56.92	55.17	58.33	0.196
Current Charges	5.82	3.61	7.55	3.803
Arrested	15.14	17.28	13.46	0.518
Guilty of Misdemeanor	6.95	8.54	5.71	0.567
Guilty of Felony	9.19	8.64	9.62	0.052
Convicted of a Financial Crime	11.79	10.34	12.96	0.318
Incarcerated	8.79	12.5	5.88	2.449

* p<0.05

As shown in Table 2, there was a high prevalence of gambling-related harms. The average number of social and economic gambling-related harms is 4.38, with less than 4% of the sample reporting 0 consequences, and no significant ($t=0.288$, $p=0.774$) difference by gender. There were also few significant differences as to which gambling-related harms men and women faced. Only three of the tested gambling-related harms revealed significant differences based on gender. Men were more likely to lose an important educational opportunity due to their gambling ($\chi^2=4.836$, $p<.05$). Women were significantly more likely to take advances out on their credit card(s) to help support their gambling ($\chi^2=5.608$, $p<.05$). Men were more likely to spend one or more nights homeless ($\chi^2=4.109$, $p<.05$). There was no statistical significance based on gender in the types of potential criminal/legal gambling-related harms.

While 56.9% (See note 8) of respondents self-reported committing at least one crime in order to gamble or to pay off gambling-related debts, there was no significant differences in the self-report of crime commission by gender. Table 3 compares the results from the self-report of committing specific types of gambling-motivated financial crimes by gender. While there were no significant differences by gender in the commission of financial crimes, when writing a bad check (the most frequent financial crime committed) is removed from this analysis, 56.2% of respondents self-reported at least one of the included financial crimes (See note 9). In the current study, there was no statistically significant result comparing commission of gambling-motivated crime based on gender. Respondents who committed such crimes averaged a significantly higher number ($t=-5.99$, $p<.05$) of social and economic gambling-related harms ($\mu=5.23$) than those that reported not committing a crime ($\mu=3.25$).

While there was no difference in the commission of crime by gender, there was variation in the number of crimes committed, with 43% of respondents reporting no gambling-motivated crime, 20% reporting 1, 16.4% reporting 2, 13% reporting 3, just over 5% reporting 4, and less than 3% reporting 5-7, and an average of 1.25 types of crimes committed ($s.d.=1.42$). Although the types of crime were assessed, this study did not assess the number of times different types of crime were committed. There were no significant differences in the number of reported gambling-motivated crimes by gender.

TABLE 3: Commission of a Financial Crime Motivated by Gambling by Gender

	%	Male %	Female %	<i>Chi-Square</i>
Theft	43.08%	40.23	45.37	0.519
Forgery	24.10%	26.44	22.22	0.468
Embezzlement	26.67%	27.59	25.93	0.068
Take Out a Credit Card in Someone Else's Name	7.69%	9.2	6.48	0.5
Write a Check from Someone Else's Account without Permission	12.31%	12.64	12.04	0.016
Use Someone Else's Credit Card Without Permission	13.33%	13.79	12.96	0.029
At Least 1 Financial Crime (bad check not considered)	56.20%	54.02	59.26	0.539

* p<0.05

While over 56% of respondents admitted to committing a gambling-motivated crime, only 15% reported that they had been arrested and 5.8% were facing current charges. Of those charged, about 7% were found guilty of a misdemeanor, 9% of a felony, and just about 8.8% had been incarcerated related to a gambling-motivated crime.

Do social and economic gambling-related harms lead to crime?

Binary logistic regression was completed to assess whether specific social or economic gambling-related harms would help predict whether a gambling-motivated crime was committed (See note 10). Table 4 displays the results of this analysis. Only one of the independent variables made a unique statistically significant contribution to the model (borrowing money to gamble or pay gambling debts) which reported an odds ratio of 2.41. This indicated that respondents who borrowed money were two times more likely to report commission of a crime than those who did not borrow money, controlling for all other factors in the model. Examination of marginal effects showed that for an average respondent, borrowing money increases the likelihood of committing a crime by 21.6%. Gender was added to the logistic regression to determine whether the respondent's gender would have an impact on the likelihood of committing a gambling-motivated crime. Gender was non-significant and there was no change to the other results. The relationship between gender and gambling-motivated crime was further examined through the addition of an interaction term between gender and borrowing money. The interaction term was non-significant (See note 11).

TABLE 4: Logistic Regression of Consequences of Gambling on Self-Reported Commission of a Gambling-Motivated Crime (N=195)

Predictor	B	S.E.	Odds Ratio
Lose Relatives	0.374	0.362	1.454
Lose Education Opportunity	-0.097	0.522	0.908
Lose Job	0.782	0.43	2.185
Borrow Money to Gamble or Pay Gambling Debts	0.881*	0.443	2.414
Take out Pay Day Loan	0.582	0.385	1.79
Advance on Retirement	0.312	0.361	1.366
Advance from Employer	0.76	0.427	2.138
Credit Card Advance	0.241	0.418	1.272
Lose House	-0.464	0.482	0.629
Vehicle Repossessed	1.527	0.817	4.606
File for Bankruptcy	0.114	0.43	1.121
Spend One or More Nights Homeless	-0.026	0.672	0.975
Have a Civil Liability	-0.062	0.694	0.94
Constant	-1.565*	0.472	0.209

* $p < 0.05$

In addition to examining the effect of specific types of social and economic gambling-related harms on the likelihood of committing a gambling-motivated crime, the analysis also considered the cumulative effect of these harms. For those respondents who self-reported committing a crime, the average number of social and economic gambling-related harms reported was 5.23 (with a range of 1 to 11), while for those who did not commit a crime the average was 3.25 (with a range of 0 to 9). As displayed in Table 5, the number of gambling-related harms a respondent experienced significantly increased the likelihood that the respondent had committed a gambling-motivated crime by a factor of 1.46. Gender was added to the logistic regression but was not significant. Likewise, an interaction term between gender and the number of social and economic

gambling-related harms was not significant.

TABLE 5: Logistic Regression of Number of Social & Economic Consequences and Commission of a Gambling-Motivated Crime

Predictor	B	S.E.	Odds Ratio
Consequences	0.378*	0.073	1.459
Constant	-1.308*	0.334	1.459

* $p < 0.05$

Binary Logistic Regression was also conducted to assess whether specific financial crimes were more likely to predict a criminal conviction (misdemeanor or felony) (See note 12). Table 6 displays the results of this analysis. Embezzlement was the only crime that had a significant effect on the likelihood of conviction.

TABLE 6: Logistic Regression of Types of Financial Crimes on Conviction

Predictor	B	S.E.	Odds Ratio
Stolen	1.073	0.647	2.924
Forgery	0.598	0.619	1.819
Embezzlement	1.682*	0.561	5.376
Take Out a Credit Card in Someone Else's Name	1.261	0.774	3.53
Write a Check from Someone Else's Account without Permission	0.918	0.666	2.505
Use Someone Else's Credit Card without Permission	-0.198	0.705	0.82
Constant	-3.969*	0.598	0.019

* $p < 0.05$

The strongest predictor of conviction was embezzlement with an odds ratio of 5.376. This indicated that respondents who embezzled funds were five times more likely to be convicted of a crime than those who did not report they embezzled money. An examination of marginal effects shows that for an average respondent, committing embezzlement increased the likelihood of conviction by 14.3%. Gender was added to the model but was not significant. Likewise, the inclusion of an interaction term between

gender and embezzlement was not significant.

Discussion

While research generally suggests that problem gamblers are likely to suffer a number of social and economic gambling-related harms, are likely to commit crime, and that differences exist between male and female problem gamblers, research has not empirically examined the relationship between specific social and economic gambling related-harms and gambling-motivated crime. Likewise, research has not examined gender differences in gambling-motivated crime (See note 13). This exploratory study set out to start to fill this gap in the literature, by examining the relationship between potential gambling-related harms and gambling-motivated crime, as well as potential variation by gender.

The results generally do not suggest variation by gender either in gambling-related harms or gambling-motivated crime. Only three of the tested gambling-related harms showed significant gender differences with men more likely to lose an educational opportunity or spend one or more nights homeless and women more likely to take out an advance on their credit card. It is not possible in the current analysis to determine whether these differences are related to the person's gender/gender identity or the product of outside influence. Meanwhile, none of the gambling-motivated crime measures significantly varied by gender. Gender also did not significantly affect the relationship between the gambling-related harms and gambling-motivated crime, nor the relationship between the type of crime committed and the likelihood of conviction. While research generally suggests vast differences in gambling-related harms based on gender, as well as a much stronger likelihood for men to commit crimes than women, those studies have not examined gender differences for gambling-motivated crime among individuals seeking help for gambling. Results suggest that once someone is at the point of seeking help for gambling (at least by seeking out Gambler's Anonymous), the social, economic, and legal/criminal gambling-related harms no longer differ between men and women.

Individually, the tested social and economic gambling-related harms were largely unrelated to the likelihood of gambling-motivated crime, with the exception of borrowing money for the purpose of gambling or paying off a gambling-related debt. For respondents who borrowed money, the likelihood of committing a gambling-motivated crime was significantly higher. Considering arguments that gambling-motivated crimes occur when individuals run out of legal avenues to obtain funds to gamble/pay off gambling debts, it is plausible that borrowing money from someone is one of the last legal avenues individuals struggling with gambling losses and debts use to obtain funds. Given that people with Gambling Disorder often try to hide the extent of their gambling, asking others for money is likely a last-ditch effort to get a big win and "fix" all the problems (social and financial) already caused by their gambling. Once

they gamble and lose the borrowed money, the desperation and lack of additional legal means for funds may lead to gambling-motivated crime.

While experiencing most social and economic gambling-related harms in isolation may not result in an increased risk of gambling-motivated crime, the results suggest that there is a compounding effect of these consequences, with an increase in the number of consequences experienced significantly increasing the likelihood of committing a gambling-motivated crime. Given the possibility that individuals commit gambling-motivated crimes once they have depleted all legal avenues for money, it is likely that the social and economic harms caused by their gambling have increased during this time, resulting in heightened desperation to obtain funds due to the urge to keep gambling as well as pay debts.

Finally, among those who committed a gambling-motivated crime, the likelihood of being convicted largely did not depend on the type of crime committed, except for embezzlement. Individuals who had committed embezzlement were significantly more likely to be convicted. Since most gambling-motivated crimes are considered crimes of “trust,” where the individual has a trust relationship with the victim(s), the likelihood of pressing charges diminishes based on the closeness of that relationship. It is much less likely that a family member or close friend will press charges than an employer. Employers are also more likely to press charges in order to obtain an insurance payout for the funds embezzled.

Conclusion

This study set out to examine the relationship between the social, economic, and criminal/legal gambling-related harms and their variation by gender. While prior research (Holdworth et al., 2013; McCarthy et al., 2019; Schull, 2002) suggests a relationship between gender and gambling-related harms, this analysis indicates that, with few exceptions, gender differences do not exist in the gambling-related harms among those seeking help through Gambler’s Anonymous. Additionally, while anecdotal evidence (Banks, 2017) has shown a relationship between social and economic gambling-related harms and the legal consequences of Gambling Disorder (i.e., gambling-motivated crime and convictions), these relationships have not been shown empirically. Indeed, this analysis shows that there are some connections between social and economic gambling-related harms and gambling-motivated crime. While many of the harms examined did not show a direct effect on gambling-motivated crime with the exception of borrowing money, there is evidence of a compounding effect such that people become more susceptible to gambling-motivated crime commission as they experience more social and economic gambling-related harms. While this relationship has been suggested anecdotally in the past, this is one of the only research studies to empirically show the compounding relationship between gambling-related harms and gambling-motivated crime.

This study does have some important limitations that should be kept

in mind. First, and foremost, it focuses on a sample of individuals who self-identify as problem gamblers through their membership in Gambler's Anonymous. Likewise, survey instruments were distributed at a single regional GA conference. While this conference is known to bring in members from a large geographic region, it is likely not representative of all GA members in the United States. Likewise, not all individuals that seek help for gambling disorder do so through GA and are thus not represented in the current study. Thus, the results should be viewed as a starting point for understanding the relationship between gambling-related harms and gambling-motivated crime. Similarly, the sample is primarily Caucasian, which while consistent with prior research on GA members, limits the ability of the sample to generalize to non-White samples. This sampling strategy is common in research on gambling disorder, and the limitations seen here are common to research using a GA sample (consider Ferentzy & Skinner, 2003; Schuler et al., 2016). Research on individuals with gambling disorder is difficult outside of GA, or other help seeking organizations, as it is not a population that is otherwise easily reached outside of institutional settings. Future research should attempt to reach a broader population of individuals who are help-seeking for gambling through means beyond Gambler's Anonymous to see whether the current findings are replicated in a broader help-seeking population.

Additionally, given the limitations in the survey instrument itself (i.e., the number and type of social, economic, and criminal/legal harms included), not all potential social and economic gambling-related harms were examined. As such future research should consider additional social and economic gambling-related harms and their relationship to gambling-motivated crime. Due to instrument design limitations, some demographic information at the time the participants were still gambling was not assessed and therefore cannot be considered for potential correlation to findings. Therefore, future studies should consider asking about items such as marital status and socioeconomic status at the time they first sought help from gambling and not just at the time of the current study. Another limitation is the ability to assess whether those that commit gambling-motivated crimes have different debt ratios from other expenses not related to gambling. A future study may want to determine whether those that commit such crimes have additional debt-related issues outside of no longer having legal avenues of money due to excessive gambling and gambling-related debts.

Despite these limitations, this study fills an important gap in the existing literature by empirically examining the relationship between social and economic gambling-related harms and gambling-motivated crime. Notably, the findings indicate greater similarity than expected when looking at this relationship and criminal/legal gambling-related harms based on gender. Given that it is generally accepted that males are much more likely to commit crime than females (see e.g. Nagel & Hagan, 1983; Steffenmeier & Allen, 1996), understanding that at least among GA members there may be a more equal relationship between gender and crime,

allows for greater understanding of the need to address these issues among the criminal-legal process and court sanctioning. This is an important area to understand as it informs the treatment of problem gamblers and encourages the potential use of treatment diversion courts for those accused of committing such crimes.

Note 1: Approximately 20% of people with Gambling Disorders will attempt suicide in their lifetime, a rate that is about three and a half times more than the general population (Moghaddam et al., 2015; Newman & Thompson, 2007; Thon et al., 2014)

Note 2: Gender is used here to denote the male/female sex dyad as that is the term used in the majority of research comparing men and women.

Note 3: Important to note that while “paying off debt” may be toward a gambling establishment or bookie, it may also include household and other debt that is unpaid due to loss of the funds through gambling (such as rent/mortgage payments, car payments, etc.).

Note 4: Gambler’s Anonymous (GA) is an international organization that provides support groups for those struggling with gambling.

Note 5: Another option was included but was not selected by the respondents.

Note 6: Problem gambling level was not assessed since all participants self-identified as having a gambling problem through their membership in Gambler’s Anonymous. Respondents thus represent those seeking help for gambling rather than restricting to those with a diagnosed Gambling Disorder.

Note 7: Respondents were asked whether they had been convicted of burglary, fraud, forgery, larceny, embezzlement, counterfeiting, robbery, extortion, arson, firearms/weapons offenses, drug offenses, alcohol offense/DWI, physical assault, murder/homicide/manslaughter/ sexual offenses, or other offense.

Note 8: This is consistent with prior research on GA members (Lesieur, 1998).

Note 9: Over 60% of the sample reported writing a bad check, with almost all of those individuals also reporting at least one other financial crime. Of those that self-reported committing a crime, only a few had only written a bad check with some individuals reporting writing a bad check, but not reporting committing a crime. It is plausible that many people do not

consider writing a bad check a crime, as it is often seen as a civil offense rather than a crime.

Note 10: In addition to those gambling-related harms presented in the table, the use of illegal drugs was also examined in relation to gambling-motivated crime as well as gender variation in use of illegal drugs. No significant relationship was found between use of illegal drugs and crime nor was there an interaction between gender and drug use and crime. This is not surprising given the focus here on acquisitional (financial) crimes.

Note 11: Results available from author upon request.

Note 12: Writing a bad check was not considered in this analysis due to its reduced likelihood to lead to a conviction and would more likely be pursued as a civil offense.

Note 13: A recent report on women, gambling, and crime within the UK was published by the Howard League providing qualitative results on a study specifically looking at women's experiences with gambling, gambling related crimes, criminal consequences, and recovery support, however it does not compare results based on gender (Arenstein et al., 2023). The study results, however, support much of the results from this current study.

Statement of Competing Interests

The authors do not declare any interest.

Ethics Approval

IRB# x17-550e.

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Relative Contributions

Dr. Michelle L. Malkin conceived of the study and collected the data. All authors conducted the analysis and wrote the first and final revisions. All authors approved of the final version.

Research Promotion

This study demonstrated substantial similarities on the prevalence of social and economic gambling-related harms and the commission of gambling-motivated crime based on gender. Results offer increased knowledge to better understand the progression of Gambling Disorder and its relationship with gambling-motivated crime.

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