



Published in final edited form as:

J Gambli Stud. 2012 March ; 28(1): 77–88. doi:10.1007/s10899-011-9246-0.

Male Batterers' Alcohol Use and Gambling Behavior

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Abstract

Little work has examined the interrelations among intimate partner violence (IPV), alcohol use, and gambling behavior, and no studies have examined these relationships among males court-ordered to batterer intervention programs (BIPs). The aim of the current investigation was to explore the associations between IPV, alcohol use, and gambling behavior among 341 males court-mandated to attend BIPs utilizing self-report measures. Voluntary, anonymous questionnaires were administered and completed during regularly scheduled BIP sessions. Compared to the general population, a higher percentage of the sample met criteria for pathological gambling (9%), and problem gambling (17%). Further, males exhibiting pathological

gambling were more likely to be hazardous drinkers, and hazardous drinkers were more likely to exhibit pathological gambling. Additionally, pathological gamblers were at an increased risk for the perpetration of both physical and sexual aggression. Finally, gambling behavior uniquely predicted the perpetration of sexual aggression above and beyond alcohol use, impulsivity, and relationship satisfaction. The implications of these results for future research and intervention are discussed.

Keywords

Gambling; Alcohol use; Intimate partner violence

Introduction

Male to female intimate partner violence (IPV) remains a prevalent occurrence in the United States, with large percentages of females reporting having been victimized by males (Ro and Lawrence 2007; Tjaden and Thoennes 2000). Further, IPV has been found to lead to numerous mental and physical health problems for the parties involved (Coker et al. 2002; Follingstad 2009; Zlotnick et al. 2006). Understanding factors that play a role in the perpetration of IPV is an important step toward effective prevention. To that end, there is mounting evidence on the association between IPV and alcohol use (Collins and Schlenger 1988; Foran and O'Leary 2008; Gayford 1975; Heyman et al. 1995; Leonard and Roberts 1998; Leonard and Senchack 1996; Quigley and Leonard 2000; Richardson 1981; Stuart 2005; Stuart et al. 2009; Temple et al. 2008), alcohol use and gambling (Abbott and McKenna 2005; Barnes et al. 1999; Grant et al. 2002; Potenza et al. 2002; Slutske et al. 2000; Stinchfield 2000; Welte et al. 2001, 2004), and gambling and violent behavior (Afifi et al. 2009; Giacomassi and Stitt 1993). Few studies have concurrently examined the association between gambling, alcohol use, and IPV, none have examined these associations among males court-referred to batterer intervention programs (BIPs).

Examining whether there is an association between all three of these behaviors will provide a better understanding of male batterers and could contribute to the development of more effective intervention programming. BIPs, which typically focus on the batterers' violent behavior to the exclusion of other behaviors that might contribute to violence, have routinely been found to be ineffective (Babcock et al. 2004; Stuart et al. 2007). Addressing factors that might contribute to IPV, such as alcohol use and gambling, may potentially provide a means to more effective treatment outcomes. Therefore, the goal of this study was to examine the association between IPV perpetration, alcohol use, and gambling among male batterers.

IPV and Alcohol Use

While the nature of the relationship between IPV and alcohol use remains controversial (Langhinrichsen-Rohling 2010), specifically whether this association has a causal component, the fact that they are strongly linked has been well established. Retrospective studies have found a relationship between acute alcohol use and the perpetration of generally violent (Collins and Schlenger 1988) and partner violent (Foran and O'Leary 2008; Stuart et al. 2009) behavior. Numerous studies of married couples have found alcohol use to be predictive of husbands' perpetration of IPV (Heyman et al. 1995; Leonard and Senchack 1996; Quigley and Leonard 2000), and recent work has established a predictive relationship between the amount of alcohol consumed in a given time period and the perpetration of IPV (Caetano et al. 2008). In a study utilizing daily diaries, the likelihood of male-to-female perpetration of any physical aggression was 11 times higher on drinking days versus nondrinking days (Fals-Stewart 2003). However, more research on factors that may impact

the association between alcohol and IPV must be conducted, as it may be the case that other factors play a role in intensifying and/or influencing this relationship.

Alcohol Use and Gambling Behavior

Like IPV, research indicates that alcohol use and gambling are strongly and positively related (Grant et al. 2002; Potenza et al. 2002; Stinchfield 2000; Welte et al. 2001, 2004), although the exact nature of this relationship is unclear. One possible explanation for this association is that both alcohol use and gambling behavior are caused by shared factors such as impulsivity and deviant peer influences (Barnes et al. 1999). It is also possible that gambling and alcohol use are reciprocally related, such that alcohol use increases gambling, and gambling in turn further increases drinking. Further, researchers have identified similar neurotransmitter systems (Bechara 2003; Chambers and Potenza 2003), as well as similar personality characteristics, such as sensation seeking (Nower et al. 2004) in alcohol addiction and gambling behavior. Additional research is needed to explore the relationship between these two addictive behaviors.

Gambling and Violent Behavior

The link between gambling and violent behavior, including IPV, is an emerging area of interest. In the early 1990s, one group of researchers compared rates of violent crime before and after the introduction of legalized gambling in Biloxi, Mississippi. Although aggravated assault tended to increase, and murder and sexual assault tended to decrease, these trends were not significant (Giacopassi and Stitt 1993). In a more recent examination, gambling was found to be significantly associated with the perpetration of dating violence, severe marital violence, and child abuse (Afifi et al. 2009). Here, gambling problems were determined on the basis of the number of diagnostic criteria met for pathological gambling according to the *Diagnostic and Statistical Manual of Mental Disorders* (APA 1994). Individuals exhibiting problems with gambling were at an increased risk for violent behavior, and individuals exhibiting violent behavior were at an increased risk for problems with gambling (Afifi et al. 2009). With some work suggesting an association between gambling and violent behavior, it is imperative that future work further examine the nature of the relationship between these two behaviors. One question that must be answered includes whether gambling might be associated with an increase in other behaviors, such as alcohol use, which might then increase violent behaviors.

Gambling, Alcohol Use, and IPV

Though numerous studies have examined the relationship between IPV and alcohol use, gambling and alcohol use, and gambling and IPV, few studies have attempted to concurrently explore the associations between all three of these behaviors. In one examination of wives' experiences with physical victimization, nearly 40% blamed their husbands' alcohol use or gambling for their victimization (Balci and Ayranci 2005). Unfortunately, these two factors were not separated and, thus, it is unclear to what degree wives believed alcohol use alone, gambling alone, or alcohol use and gambling together were a reason for their victimization (Balci and Ayranci 2005). In a similar study, females presenting for care in an emergency department reported their physical victimization by a partner in the past year as well as the gambling behavior and alcohol use of a partner over the past year. Here, females reported that 57% of their abusive partners abused alcohol, 23% were problem gamblers, and 16% were both alcohol abusers and problem gamblers (Muelleman et al. 2002). While these studies present steps in the right direction, both rely on females' reports of abusive males' behavior. No studies have examined these factors utilizing males' own reports of their gambling behavior, alcohol use, and IPV perpetration.

To our knowledge, there have been no published studies exploring the frequency of hazardous gambling or the relationship between gambling, alcohol use, and IPV among males court-mandated to BIPs. Understanding variables that might play a contributing role in the perpetration of IPV, including alcohol use and gambling behavior, could potentially benefit batterers through the development of more effective intervention programming. Therefore, the goals of this study were (1) to examine the frequency of pathological gambling among male batterers, (2) to explore the association between gambling, alcohol use, and reports of IPV perpetration, and (3) to determine the unique variability in IPV perpetration attributable to gambling above and beyond alcohol use and other variables known to be associated with IPV. Impulsivity (Cunradi et al. 2009; Schafer et al. 2004; Stuart et al. 2005) and relationship satisfaction (Stith et al. 2004) are two such variables known to be associated with IPV and were therefore included. It was hypothesized that IPV and alcohol use would be positively associated, that alcohol use and gambling behavior would be positively associated, and that IPV and gambling would be positively associated. However, due to the lack of research examining these variables together, no specific hypotheses were made regarding the specific associations between gambling, alcohol use, and IPV. Rather, we sought to explore whether gambling behavior might be a unique predictor of IPV perpetration above and beyond alcohol use, impulsivity, and relationship satisfaction.

Method

Participants

The sample consisted of 341 men who were arrested for domestic violence and court-mandated to attend BIPs in Rhode Island. These men represent an overlapping sample of men who participated in a larger study investigating men court-mandated to BIPs (Stuart et al. 2006, 2008). The participants in the current study were included based on their completion of the measures of interest for this study (95% of the total sample). The mean age was 33.2 years ($SD = 10.0$), education was 12.0 years ($SD = 2.2$), and annual income was \$34,532 ($SD = \$22,742$). The ethnic composition of the sample was 69.2% non-Hispanic Caucasian, 12.9% African-American, 8.8% Hispanic, 2.1% American Indian/Alaskan Native, 1.8% Asian or Pacific Islander, and 4.7% other. At the time of the study, 27.9% reported being married, 29.6% reported cohabiting, 19.4% dating, 12.0% single, 6.5% separated, 4.1% divorced, and .3% widowed. The average length of the men's current relationship was 5.9 years ($SD = 6.5$), length of time living with their current intimate partner was 5.4 years ($SD = 6.6$), and number of children was 1.9 ($SD = 2.0$).

Procedure

Questionnaires were completed during men's regularly scheduled batterer intervention sessions. Participation was voluntary and no compensation was provided. None of the information collected was shared with the intervention facilitators or anyone within the criminal justice system. After informed consent was obtained, participants were provided with a questionnaire packet. For a more detailed description of the procedures for the current study, please see Stuart et al. (2006, 2008). Males completed all measures of interest in small groups. The mean number of intervention sessions attended by participants at the time of this study was 9.60 ($SD = 6.97$). Total number of intervention sessions attended was not significantly related to any of the variables of interest in the current study.

Measures

Demographics Questionnaire—Participants provided information about their age, education, income, ethnicity, marital status, duration of current relationship, duration of cohabitation with current partner, and number of children.

IPV—The Revised Conflict Tactics Scale (CTS2) (Straus et al. 1996) was used to assess IPV perpetration. The psychological aggression, physical assault, and sexual coercion perpetration subscales were used in the current study. Each subscale item can have a score from 0 to 25 and the subscales are scored by summing the frequency of each of the behaviors in the past year. More frequent aggression is indicated by higher scores on the CTS2. The CTS2 is the most widely used violence measure, and has consistently demonstrated adequate reliability and validity (Straus et al. 1996). For the current study, internal consistency for the perpetration of psychological aggression was .67, physical assault was .75, and sexual coercion was .75. Because psychological aggression, physical assault, and sexual coercion were all positively skewed, natural log transformations of these variables were utilized in subsequent analyses.

Drinking Behavior—The Alcohol Use Disorders Identification Test (AUDIT) (Saunders et al. 1993) was administered to assess for hazardous drinking during the past year. This 10-item self-report screening instrument determines the quantity and frequency of drinking, drinking intensity, symptoms of dependence and tolerance, and alcohol-related consequences. Hazardous drinking is defined as scoring eight or higher on the summed score of the AUDIT (Saunders et al. 1993), with scores ranging from 0 to 40. Adequate internal consistency and reliability have been demonstrated (Saunders et al. 1993). The internal consistency for the current study was .87.

Gambling Behavior—The South Oaks Gambling Screen (SOGS) (Lesieur and Blume 1987) was employed to determine the lifetime prevalence of gambling in our sample. The SOGS is a 20-item measure based on *Diagnostic and Statistical Manual of Mental Disorders* (APA 1994) criteria for pathological gambling. Scores range from 0 to 20, with scores of 5 or more indicative of probable *pathological gambling* (Lesieur and Blume 1987; Volberg and Steadman 1988). Researchers have also used scores of 3 or higher to indicate *problem gambling* (Volberg and Steadman 1988). The SOGS has satisfactory reliability and validity (Lesieur and Blume 1987). For this study, the internal consistency was .87. Because this variable was positively skewed, the natural log transformation of this variable was utilized in subsequent analyses.

Impulsivity—The impulsivity subscale of the Eysenck Impulsiveness Questionnaire (EIQ) (Eysenck et al. 1985) was used to assess self-reported impulsivity. This subscale measures poor behavior control and inability to delay gratification. Research shows that the Eysenck Impulsivity subscale strongly correlates with impulsive behavior (Nagoshi et al. 1992) and differentiates impulsive populations from control groups (Eysenck and McGurk 1980). Greater impulsivity is indicated by a higher score on the impulsivity subscale. The internal consistency for the current study was .82.

Relationship Satisfaction—Relationship satisfaction was assessed with the Short Marital Adjustment Test (SMAT) (Locke and Wallace 1959). Comprised of 15 items, the SMAT measures various aspects of a participant's relationship, with participants asked to rate their relationship at the time they began batterer intervention. Scores on the SMAT range from 2 to 158; higher scores indicate higher levels of adjustment. Scores above 100 are indicative of nondistressed relationships, and scores below 100 are indicative of distressed relationships. Reliability and convergent validity of the SMAT has been established (Locke and Wallace 1959; Spainer 1976). For this study, the internal consistency was .76.

Results

Means, standard deviations, and bivariate correlations among alcohol use, gambling, relationship satisfaction, impulsivity, and use of psychological, physical, and sexual aggression are presented in Table 1. Raw scores were utilized in determining means and standard deviations of all variables. Raw scores of the AUDIT, EIQ, and SMAT were utilized in all other analyses, whereas natural log transformations of the SOGS and CTS2 scales (i.e., psychological, physical, and sexual aggression) were implemented to correct for skewed distributions.

Alcohol use was positively associated with gambling behavior, impulsivity, and psychological, physical, and sexual aggression. Gambling behavior was positively associated with impulsivity, physical, and sexual aggression. Relationship satisfaction was negatively associated with impulsivity, physical, sexual, and psychological aggression. Finally, impulsivity was positively associated with psychological, physical, and sexual aggression.

Frequency of Pathological Gambling and Hazardous Drinking

Of 341 males who completed the SOGS, approximately 9% ($n = 30$) obtained a score of five or higher, thus meeting SOGS criteria for pathological gambling, with approximately 17% ($n = 58$) of the total sample meeting SOGS criteria for problem gambling. Additionally, 43% ($n = 146$) obtained a score of eight or higher on the AUDIT, thus meeting criteria for hazardous drinking.

Associations Between Gambling, Alcohol Use, and IPV Perpetration

Of those males characterized as probable pathological gamblers, approximately 53% ($n = 16$) also met criteria for hazardous drinking. Probable pathological gamblers ($n = 30$) scored significantly higher on the AUDIT ($M = 11.27$, $SD = 10.14$) than did non-probable pathological gamblers ($M = 8.06$, $SD = 7.7$), $t(339) = -2.12$, $P < .05$. Likewise, hazardous drinkers scored significantly higher on the SOGS ($M = 1.65$, $SD = 3.06$) than did non-hazardous drinkers ($M = .85$, $SD = 1.93$), $t(339) = -2.83$, $P < .05$.

Probable pathological gamblers were not more likely to report more frequent incidents of psychological abuse of their partner than non-pathological gamblers, but they did report significantly more frequent physical assault of their partner, $t(337) = -3.27$, $P < .01$, and sexual coercion of their partner, $t(338) = -2.89$, $P < .01$.

Unique Variability in IPV Perpetration Attributable to Gambling

Hierarchical regression analyses were utilized to further examine the unique variance in violent behavior attributable to gambling. In addition to alcohol use, research shows that impulsivity (Cunradi et al. 2009; Schafer et al. 2004) and low marital satisfaction (Stith et al. 2004) are associated with increased risk for IPV perpetration. Therefore, models examined the variance in IPV perpetration uniquely attributable to gambling while controlling for impulsivity and relationship satisfaction. These analyses were completed separately for psychological, physical, and sexual aggression. Only the models examining sexual aggression were significant. In the first model examining sexual aggression, impulsivity, relationship satisfaction, and alcohol use account for 11% of the variance in male batterers' reports of sexual coercion toward their partner. In the second model, the SOGS was included along with measures of impulsivity, relationship satisfaction, and alcohol use. This model accounted for 13% of the variance in male batterers' reports of sexual coercion toward their partner, suggesting that lifetime gambling behavior was uniquely associated with sexually aggressive behavior among batterers in relationships.¹ These findings are presented in Table

2. In other analyses, lifetime gambling behavior did not significantly account for psychological or physical aggression above and beyond alcohol use, impulsivity, and relationship discord.

Discussion

BIPs have been found to be largely ineffective at reducing rates of perpetration of IPV (Babcock et al. 2004), a problem which remains prevalent and has many negative consequences for the individuals involved (Coker et al. 2002; Follingstad 2009; Zlotnick et al. 2006). Research is needed that examines potential factors that play a role in the relationship between alcohol and IPV so as to build a better understanding of the perpetrators of IPV and to then build more effective programming. The purpose of the present study was to extend previous research on the associations between gambling behavior, alcohol use, and IPV by examining all three of these behaviors simultaneously. To our knowledge, this is the first study to examine the associations between all three of these variables among males court ordered to BIPs.

The first goal of this study was to examine the frequency of gambling behavior among male batterers. Similar to previous research, pathological gambling (9%) and problem gambling (17%) were more common among this sample of batterers than has been found in the general population (1–2%) (Afifi et al. 2009; Giacomassi and Stitt 1993; Potenza et al. 2002; Shaffer and Hall 2001; Stinchfield 2000). Problem gambling among physically violent males not court-mandated to treatment has been found to be somewhat higher (23%) in a sample utilizing the reports of abusive males' female partners (Muelleman et al. 2002). This difference could reflect differences between males court-mandated to BIPs versus those not court-mandated, differences among males' reports versus their female partners' reports, or other differences across methodologies (e.g., measurement). Future work should attempt to combine these methodologies such that both the males' report and their female partners' report are utilized.

Further, pathological gamblers were more likely to report hazardous drinking than were nonpathological gamblers, and hazardous drinkers were more likely to report pathological gambling than were nonhazardous drinkers. This finding is in line with past work that has shown an association between violence and gambling behavior (Afifi et al. 2009; Giacomassi and Stitt 1993; Muelleman et al. 2002). The overrepresentation of pathological gambling among male batterers compared to the general population suggests that males in BIPs, especially those who misuse substances, might benefit from screening and treatment for problems with gambling behavior.

The second goal of this study was to examine the associations between gambling behavior, alcohol use, and IPV perpetration. The correlation between gambling behavior and psychological abuse was in the expected direction, and trended toward significance ($P = .056$). Potential explanations for gambling behavior's association with physical and sexual aggression, yet not psychological aggression, should be explored in future research. This is an especially interesting finding given past work which has established a strong link between psychological aggression and other forms of IPV (Murphy and O'Leary 1989). Future research should also attempt to establish the directionality and potential causal

¹Although drug use was not a primary focus of the present study, we did administer the Drug Use Identification Test (Stuart et al. 2003, 2004). The DUDIT, which parallels the AUDIT, is a screening measure for drug problems. The DUDIT was entered into the first model along with the EIQ, SMAT, and AUDIT, and into the second model along with the EIQ, SMAT, AUDIT, and SOGS to examine whether, with the inclusion of the DUDIT, the SOGS would be associated with sexual aggression. Findings revealed that even after including the DUDIT, the SOGS remained significantly associated with sexual aggression. Thus, including the DUDIT in the model did not substantially change the primary results presented here.

mechanisms of these relationships. It is possible, for example, that alcohol use leads to both gambling behavior and IPV perpetration. However, it might also be the case that IPV perpetration leads to alcohol use and gambling behavior, that gambling behavior is a result of a combination of IPV perpetration and alcohol use, or any number of other potential relationships. It might also be true that these behaviors are related in a spurious matter, such that some other underlying variable leads an individual to be at a greater risk for problems with gambling, alcohol use, and IPV perpetration. For example, the addition of gambling may mark a greater propensity towards the externalizing dimension of psychopathology. Thus, gambling might be thought of as an additive feature of personality that covaries with alcohol, low behavioral control, and disinhibition of aggression, thereby potentiating IPV.

The final goal of this study was to examine the unique variability in IPV perpetration attributable to gambling above and beyond alcohol use and other variables known to be associated with IPV perpetration (i.e., impulsivity and relationship satisfaction). Hierarchical regression analyses revealed that increased gambling behavior was associated with greater sexual aggression perpetration, and this association remained after statistical control for drinking behavior, relationship satisfaction, and impulsivity. However, the magnitude of this relationship was relatively small, was of a similar magnitude as the relationship to drinking behavior, and suggests that the contribution of gambling to aggression is not particularly substantial. Future research should address the underlying reasons for these associations and examine whether they are clinically significant. This is important because gambling behavior may be an important intervention point for perpetrators of violence who consume alcohol. For example, researchers who found an association between gambling and alcohol use, with gamblers more likely to report unsafe sexual practices (i.e., having unprotected intercourse) as a result of their drinking, have suggested that such individuals are exhibiting a preference for risky behavior in general (LaBrie et al. 2003).

When interpreting the findings from the current study certain limitations should be noted. First, the cross-sectional nature of the study does not allow for an examination of the potential causal associations among variables. Future studies which employ a longitudinal design are needed to better allow researchers to understand whether these behaviors are spuriously or causally related. Second, we did not corroborate participants' reports of IPV, gambling, or drinking behavior. It is possible that participants underreported these problems, specifically because males might have been fearful of reporting activities which might further affect them legally. However, in the current study, participants' names could not be connected to their responses (i.e., there was no master list of identification number and participant names). This may have reduced participants' concerns of reporting illegal activity. Regardless, participants did report a high prevalence of IPV, gambling, and drinking. Nonetheless, future work would be improved by obtaining collateral reports of these key constructs. Future studies would also be improved methodologically by conducting diagnostic interviews of pathological and problem gambling to supplement the self-report questionnaire measure that was used in the current study. Although the current study utilized an understudied sample of individuals, the generalizability of these findings to the general population is limited due to the specific nature of this particular group of males. Additionally, incorporation of a matched comparison group in future work would strengthen the conclusions that can be made.

Despite these limitations, the current study's utilization of a sample of male batterers is a significant contribution to the literature. This first study of male batterers' gambling behavior, alcohol use, and IPV is an important step toward developing a fuller understanding of male batterers, and lends support to other studies which have found a link between substance abuse and gambling (Serras et al. 2010; Stewart et al. 2008), as well as to those that have found a link between gambling, substance abuse, and violence (Goldstein et al.

2009). This study provides an important step toward better understanding factors which might eventually contribute to more effective intervention programs. Individuals in BIPs who abuse alcohol and/or have gambling problems might benefit from additional treatment which addresses these behaviors and any features they have in common.

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Table 1

Means, standard deviations, and correlations among variables

	1.	2.	3.	4.	5.	6.	7.	8.
1. Alcohol use disorders identification test	–							
2. South oaks gambling screen	.16**	–						
3. Short marital adjustment test	-.10	-.09	–					
4. Eysenck impulsivity questionnaire	.20**	.26**	-.27**	–				
5. CTS2, psychological aggression	.27**	.10	-.40**	.38**	–			
6. CTS2, physical aggression	.32**	.22**	-.26**	.40**	.57**	–		
7. CTS2, sexual aggression	.27**	.23**	-.13*	.31**	.31**	.47**	–	
8. BIP sessions attended	.06	-.08	-.05	-.04	.07	-.00	.07	
M	8.36	1.30	77.08	8.04	29.92	8.47	4.96	9.60
SD	7.93	2.65	30.57	4.23	30.43	16.56	11.81	6.97

** $P < .01$,

* $P < .05$; alcohol use disorders identification test range = 0–40; south oaks gambling screen range = 0–20; short marital adjustment test range = 2–158; eysenck impulsivity questionnaire range = 0–18; psychological, physical, and sexual aggression range = 0–25; BIP sessions attended = Number of batterer intervention program session attended by participant at time of survey

Table 2
 Hierarchical regression analysis examining the unique variance in sexual aggression perpetration attributable to gambling

	B	SE	β	R²	F
Model 1				.11	10.80
Eysenck impulsivity questionnaire	.07	.02	.27		
Short marital adjustment test	.00	.00	-.01		
Alcohol use disorders identification test	.02	.01	.13**		
Model 2				.13	9.67
Eysenck impulsivity questionnaire	.06	.02	.24		
Short marital adjustment test	.00	.00	-.01		
Alcohol use disorders identification test	.02	.01	.12		
South oaks gambling screen	.23	.10	.14**		

**
 $P < .01$