Drug and Alcohol Dependence 78 (2005) 39–47

Psychosocial and substance-use risk factors for intimate partner violence

Sherry Lipsky a,∗, Raul Caetano b, Craig A. Field a, Gregory L. Larkin b

a Dallas Regional Campus, University of Texas, School of Public Health, 5323 Harry Hines Boulevard, V8.112, Dallas, TX 75390-9128, USA

b Violence Intervention and Prevention Center, Parkland Memorial Hospital, University of Texas, Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75390-8579, USA

Received 8 March 2004; received in revised form 27 August 2004; accepted 30 August 2004

Abstract

Objective: Few emergency department (ED) studies have described the relationship between family violence and subsequent intimate partner violence (IPV) or accounted for partner alcohol use in IPV victimization. This study sought to identify family history and substance-use factors associated with IPV among women presenting to an urban emergency department.

Methods: Case–control study in which cases (women identified as having IPV concerns and an IPV history) and controls (women without IPV) were frequency-matched by age group and race/ethnicity. Logistic regression was performed to calculate adjusted odds ratios (AOR) for any IPV, physical IPV, and sexual IPV.

Results: The sample included 182 cases and 147 controls. Living with a partner (not married) and witnessing parental violence were independent risk factors for any IPV (AOR 2.55 and AOR 2.21, respectively). Partner’s alcohol use (AOR 1.22 for every five drinks consumed per week) and heavier drinking (AOR 5.07) were also significant risk factors, but not subject’s substance-use. The pattern of risk factors varied only slightly for physical IPV and sexual IPV.

Conclusion: This study suggests a substantial relationship between partner alcohol use and IPV among women beyond the woman’s substance-use and confirms previous reports regarding the cycle of violence in women’s lives.

© 2004 Elsevier Ireland Ltd. All rights reserved.

Keywords: Alcohol drinking; Alcohol dependence; Substance abuse; Child abuse; Partner abuse; Emergency medicine

1. Introduction

Intimate partner violence (IPV) has gained worldwide attention and is recognized as an important public health concern. International estimates vary widely, with 10–69% of women reporting physical assault by a male partner in their lifetime, and from 1 to 52% of women have experienced IPV in the previous 12 months, according to 48 population-based surveys from around the world (Krug et al., 2002). In the United States, 1% of all surveyed women and up to 14% of married or cohabiting women have reported IPV in the previous 12 months in national surveys (Gelles, 2000; Schafer et al., 1998; Tjaden and Thoennes, 2000a). Although this is a relatively small proportion in comparison to some of

The impact is substantial with up to six million US women being affected each year.

Women are especially at risk for IPV as they are more likely to experience chronic and more severe IPV than men, and they are more likely to be injured as a result of partner violence (Tjaden and Thoennes, 2000a). Based on conservative estimates from the National Violence Against Women Survey (Tjaden and Thoennes, 2000a), which found that women often experienced multiple assaults in the preceding 12 months, approximately one-third of the five million IPV incidents perpetrated against women each year in the US result in medical care with the majority of women receiving treatment in a hospital setting (National Center for Injury Prevention and Control, 2003). Emergency department (ED) utilization, in particular, is substantial (Greenfeld et al., 1998; Centers for Disease Control and Prevention, 2001).

Acute physical trauma or injury resulting from IPV has been difficult to identify among women in ED settings,
however, due to both patient and provider barriers (McGrath et al., 1997; Davis et al., 2003; Larkin et al., 1999). Patient characteristics associated with not being screened for IPV in the ED include presenting with non-psychiatric complaints, less severe complaints, and presenting during daylight hours (Larkin et al., 1999). Further, providers have expressed frustration that the victim would return to an abusive partner, concerns about misdiagnosis, lack of time and privacy, personal discomfort, reluctance to intrude into familial privacy, and lack of 24-h social service support (Davis et al., 2003; McGrath et al., 1997). Abused women have also reported that providers often do not ask about IPV, even when presenting with injuries, and they frequently report having negative experiences (e.g. condescending or uncaring attitudes) when they do disclose; other reasons for non-disclosure include fear of their partner, police, and the courts, shame, and embarrassment (Sleutel, 1998; Durant et al., 2000). As a result of these barriers, prevalence estimates have been quite low, ranging from 1 to 7% (Abbott et al., 1995; Dearwater et al., 1998; Feldhaus et al., 1997; Morrison et al., 2000; Petridou et al., 2002; Roberts et al., 1996; Sachs et al., 1998; Sethi et al., 2004).

Nevertheless, ED studies have been useful in identifying important risk factors for IPV in these populations, particularly, alcohol and drug use. Alcohol use or abuse has been identified as an independent risk factor for current and previous IPV victimization among men and women in ED studies controlling for demographic and drug use (Ernst et al., 1997) or demographics alone (Rhodes et al., 2002), and cocaine use has been associated with a history of IPV victimization among women controlling for demographic factors (Brokaw et al., 2002); the latter two studies assessed exposure to drug and alcohol use separately.

While general population studies suggest that partner’s alcohol or drug use may be an independent risk factor for IPV (Cunradi et al., 2002) or IPV-related injury (Tjaden and Thoennes, 2000a), few ED studies have taken partner substance-use into account in examining the independent risk factors for IPV (Grasso et al., 1999; Kyriacou et al., 1999; Rhodes et al., 2002). Intentionally injured women were two to four times more likely than controls to have a partner with alcohol or cocaine use, respectively, in the study by Grasso et al. (1999), after adjusting for the woman’s alcohol and drug use, psychosocial, and demographic factors. Similarly, Kyriacou et al. (1999) found that women intentionally injured by their partner were approximately 3.5 times more likely than controls to either have a partner who abused alcohol or used drugs, after adjusting for subject and partner demographic and substance-use factors.

Other important psychosocial factors related to IPV have been suggested in studies drawn from the general population, including childhood abuse and witnessing parental violence (Ehrensaft et al., 2003; Cunradi et al., 2002; Tjaden and Thoennes, 2000a). Cunradi et al. (2002), for example, found that women reporting childhood physical abuse were nearly five times more likely to have experienced severe IPV and male partners with a history of childhood physical abuse were three times more likely to perpetrate severe IPV, beyond the effect of alcohol problems and drug use in women and their partners. This is consistent with the literature, which suggests that childhood abuse and parental violence may lead to substance abuse and IPV later in life (Ehrensaft et al., 2003; Jouriles et al., 2001; Stein et al., 2002). In the emergency medicine literature, however, few studies have described the relationship between family violence and subsequent IPV. A history of childhood abuse was associated with both a violence-related injury by a current male partner (Grasso et al., 1999) and a history of IPV (El-Bassel et al., 2002) among women seeking care in the ED, although neither of these studies reported childhood abuse as an independent risk factor for IPV.

The main objective of this study is to determine the independent sociodemographic, family violence, and substance-use risk factors for IPV among black, white, and Hispanic women presenting to an urban ED in the U.S. This study also attempts to further discern the independent contribution of partner alcohol use on IPV victimization. We hypothesized that family violence and substance-use, particularly alcohol use among partners, would be independent risk factors for IPV victimization.

2. Methods

2.1. Study setting and design

The study sample is drawn from a case-control hospital-based study of white, black, and Hispanic adult female patients admitted to an urban ED in Dallas, Texas from May through October 2002. Cases were defined as ED patients referred to the Violence Intervention and Prevention (VIP) Center of the study institution as a result of concerns related to IPV victimization identified during the ED visit by either the health care provider or the patient. Controls were selected from patients in the same ED as cases and during the same time period that cases were recruited into the study. They were approached for study recruitment in the ED waiting room by VIP caseworkers 24 h a day, all days of the week. Controls were defined as women not referred to the VIP center. Controls were frequency matched to cases by age group and race/ethnicity. To further establish IPV history, cases and controls were asked during the study interview about the occurrence (yes or no) of 10 physically violent behaviors and 1 sexual violence behavior in the previous 12 months that their partners may have perpetrated against them. These items were adapted from the Conflict Tactics Scales, Form R (Straus, 1990a). For the purposes of this paper, both cases and controls also must have been married or living together in a relationship for at least 3 months in the previous 12 months in order to ensure equal probability of exposure; subjects must have presented to the ED to obtain care for themselves to accurately reflect the ED population; and demographic data...
(race/ethnicity, age, and relationship status) must have been available to compare cases and controls.

Patients who were 18 years of age and older and spoke English or Spanish were eligible for the study. Patients were excluded from the study if they were under 18 years of age, could not speak English or Spanish, were not able to provide consent due to mental disability, prisoner status, disorientation, or were under the influence of alcohol or other drugs. They were also excluded if they required critical care management or monitoring, or if it was determined that participation in the study might be detrimental to their clinical course or threaten their safety.

2.2. Study participants

Six hundred eligible patients were approached to participate in this study, including 334 cases and 266 controls. Of the 334 cases referred by ED personnel to the VIP center, 109 (33%) refused participation and were not included in the study, for a participation rate of 67%. Of the 266 patients approached to participate as control subjects, 59 (22%) refused, for a participation rate of 78%. No information was available from eligible patients who refused to participate.

Of the 225 case participants, 23 (10%) were excluded from the current analysis for not meeting the relationship criteria (n = 5) or presenting to the ED for the care of someone other than themselves (n = 18). An additional 20 (9%) of the 225 cases were excluded after data review due to missing data or negative responses on IPV victimization history. The remaining 182 cases were included in the analysis. Of the 207 control subjects that participated, 23 (11%) were excluded from the current analysis for not meeting the relationship criteria (n = 5) or presenting to the ED for the care of someone other than themselves (n = 18). An additional 37 (18%) of the 207 controls were found upon review to have reported a history of IPV in the previous 12 months during the study interview and were subsequently excluded. The remaining 147 controls were retained for analysis.

2.3. Data collection

Cases and controls were interviewed by trained bilingual caseworkers from the VIP Center. Caseworkers were trained over a 4-day period on study objectives, confidentiality, informed consent, procedures for conducting interviews, and fieldwork monitoring. Study participants provided written informed consent. All interviews were conducted in Spanish or English, depending on the respondent’s preference, using a standardized survey instrument. The survey covered a number of topics; we report here on those regarding sociodemographic factors, history of family violence during childhood and adolescence, IPV history, the respondent’s alcohol and other drug use, and alcohol use by the respondent’s partner (with the respondent serving as proxy). This study was approved by the Institutional Review Board of the University of Texas Southwestern Medical Center at Dallas and the Committee for the Protection of Human Subjects of the University of Texas Houston Health Science Center.

2.4. Measures

2.4.1. Dependent measures

Any IPV victimization is the main dependent measure in this study; physical IPV without sexual victimization and sexual IPV (with or without physical IPV) were also considered as dependent measures. To establish IPV history, respondents were asked during the study interview about the occurrence (yes or no) of 10 physically violent behaviors and 1 sexual violence behavior in the previous 12 months that their partners may have perpetrated against them. These items were adapted from the Conflict Tactics Scales (CTS), Form R (Straus, 1990a) with the exception of burned or scalded and forced sex as described below, which were adapted from the revised CTS2 (Straus et al., 1996). The CTS groups behaviors into minor physical, severe physical, and sexual violence; we use the term moderate physical in place of minor physical violence in this paper. Moderate physical violence included: threw something; pushed, grabbed, or shoved; or slapped. Severe physical violence included: kicked, bit or hit; hit or tried to hit with something; beat up; choked; burned or scalded; threatened with a knife or gun; or used a knife or gun. Sexual violence was defined as forced sex (‘did your partner force you to have sex with him/her?’). The CTS has demonstrated adequate validity and reliability (Straus, 1990b; Straus et al., 1996).

2.4.2. Independent measures

2.4.2.1. Sociodemographic factors. Sociodemographic measures included self-reported race/ethnicity (white, black, Hispanic), age group (18-24, 25-34, 35-44, and 45 years and older), relationship status (married, living with a partner, currently not married or living with a partner), educational level (less than high school education, high school education or higher), and employment status (unemployed, employed).

2.4.2.2. Family violence. Family violence measures included (1) any childhood physical abuse by parent or guardian (hit, beat, burned/scalded, threatened by gun/knife, or had gun/knife used on them) (2) and any history of parental violence (subject witnessed threats of or actual violence between parents/guardians or parents/guardians and partners). Items for childhood physical abuse were adapted from the CTS, Form R (Straus, 1990a) and the CTS2 (Straus et al., 1996), as noted above, and have been utilized in multiple studies of adult recall of childhood abuse (Yodanis et al., 1997).

2.4.2.3. Alcohol use. Measures of alcohol use by the subject and her partner included usual number of drinks per week in the past 12 months and ‘heavier drinking’. The measure of usual number of drinks was created by combining two measures. Respondents were asked, ‘When you drank malt liquor, regular beer, wine cooler, wine, or hard liquor in the last 12 months, how many drinks did you have in a typical week?’
months, how many drinks did you usually have at one time?" (quantity) and "In the last 12 months, about how often did you drink any kind of alcoholic beverage?" (frequency). Possible frequency responses included a range from 'every day' to 'one to five times a year'. Quantity and frequency (using midpoints or absolute values) were multiplied and then calculated to measure weekly volume consumption. 'Heavier drinking' was defined as ≥5 versus <5 drinks per occasion at least once a month in the past 12 months. This measure has been associated with an increase in the number of drinking problems (Naier et al., 2003), as well as other adverse health effects, unintentional injuries, and interpersonal violence (Cherpitel, 1999; National Institute on Alcohol Abuse and Alcoholism, 2000; Field and Caetano, 2003).

Subject's alcohol abuse and dependence, as defined by the fourth edition of the Diagnostic Statistical Manual (DSM-IV) of the American Psychiatric Association (1994), were also measured. Diagnosis of abuse is made in the presence of one or more social, interpersonal, or legal problems or drinking when alcohol use is physically hazardous. Alcohol dependence is considered to be present when at least three of seven domains are evident during a 12-month period: (1) tolerance; (2) withdrawal syndrome; (3) consumption of larger amounts over a longer period of time than intended; (4) persistent desire or unsuccessful tries to lower the level of consumption or control use; (5) giving up of important social, occupational, or recreational activities; (6) spending a great deal of time to obtain alcohol, to drink, or recover from its effects; (7) continued to drink despite knowledge of a recurrent psychosocial or physical problem caused or exacerbated by drinking.

2.4.2.4. Illicit Drug Use. Illicit drug use by the subject during the previous 12 months was defined as any use of amphetamines or other stimulants, cocaine or crack, heroin, marijuana or hashish, inhalants other than cocaine, hallucinogens, or other non-prescription drugs. Sedative or anxiolytics in the previous 12 months included sedatives, mild tranquilizers, barbiturates, anesthetics, or other prescription painkillers, with or without illicit drug use as described above. No drug use history was elicited for the partner.

2.5. Data analysis

Pearson Chi-square and Fisher exact tests were conducted to compare the characteristics of IPV victims (cases) and non-victims (controls) with regard to sociodemographic factors, family violence history, substance-use by the subject, and alcohol use by the partner. A P-value of <0.05 was considered statistically significant.

Unconditional logistic regression was performed to calculate adjusted odds ratios (AOR) and 95% confidence intervals (CI). The dependent variables (any IPV, physical IPV, and sexual IPV), were coded ‘1’ for IPV victimization (cases) and ‘0’ for no IPV (controls or reference group). Five models for each dependent measure were developed to determine independent risk factors for IPV. This analytic design allows for the examination of the effect of each block of variables with and without accounting for the remaining variables. Of particular relevance in the sequencing of each model is the effect of family violence history on the development of IPV and substance abuse and the potential confounding effect of subject drug use on alcohol use and partner alcohol use on the subject's substance-use. The first model included sociodemographic factors. Family violence history was added to the second model, followed by alcohol use by the subject, subject's drug use, and partner's alcohol use. (Subject's alcohol abuse was not included in any model due to the instability of the coefficient.) Each subsequent model included the factors from the previous model. The usual number of drinks per week (a continuous variable) was divided by five before entry into the models to reflect the increased risk for every five drinks consumed per week. Race/ethnicity and age group were forced into each model to account for the potential confounding introduced by frequency matching in the study design. Only those subjects with complete data available for all variables were included in each model so that all models included the same subjects. Analyses were conducted using SPSS 11.0.1 (SPSS Inc., 2001, Chicago, IL).

3. Results

3.1. Description of cases

All but one case subject experienced severe physical violence and/or sexual violence. Among the 182 case subjects reporting any violence, 68 (37.4%) reported sexual violence, 5 (2.7%) had missing sexual violence data. Further, all 68 subjects who reported sexual violence also experienced either moderate (n = 1) or severe physical violence.

3.2. Comparison of cases and controls

Cases were significantly more likely to be living with a partner but not married and to have a history of childhood abuse or parental violence (Table 1). Cases were also more likely than controls to consume more alcoholic drinks per week on average, be heavier drinkers, abuse alcohol or be alcohol dependent, use illicit drugs, and use sedatives or anxiolytics. Furthermore, cases were more likely to report that their partners consumed more alcoholic drinks per week on average and that their partners were heavier drinkers compared to controls.

3.3. Risk factors for IPV

Relationship status (living with a partner) and witnessing parental violence were consistently found to be a risk factor across all models for any IPV victimization (Table 2). Although the odds ratio associated with childhood abuse remained elevated in each model (AOR 2.34–1.61), the estimate became non-significant after partner drinking was added to
Table 1
Characteristics of women presenting to a hospital emergency department by intimate partner violence (IPV) victimization

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>IPV victims</th>
<th>Non-victims</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Sociodemographics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race/ethnicity a (n = 329)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>59 (32.4)</td>
<td>50 (34.0)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>76 (41.8)</td>
<td>66 (44.9)</td>
</tr>
<tr>
<td>White</td>
<td>47 (25.8)</td>
<td>31 (21.1)</td>
</tr>
<tr>
<td>Age (years) a (n = 329)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–24</td>
<td>59 (32.4)</td>
<td>37 (25.2)</td>
</tr>
<tr>
<td>25–34</td>
<td>59 (32.4)</td>
<td>52 (35.4)</td>
</tr>
<tr>
<td>35–44</td>
<td>39 (21.4)</td>
<td>38 (25.9)</td>
</tr>
<tr>
<td>45+</td>
<td>25 (13.7)</td>
<td>20 (13.6)</td>
</tr>
<tr>
<td>Relationship status (n = 329)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>56 (30.8)</td>
<td>82 (55.8) **</td>
</tr>
<tr>
<td>Living with a partner</td>
<td>109 (59.9)</td>
<td>46 (31.3)</td>
</tr>
<tr>
<td>Currently not married or living with a partner</td>
<td>17 (9.3)</td>
<td>19 (12.9)</td>
</tr>
<tr>
<td>Less than high school education b</td>
<td>91 (50.3)</td>
<td>74 (50.3)</td>
</tr>
<tr>
<td>Unemployed c (n = 327)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family violence history b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood physical abuse b (n = 329)</td>
<td>93 (51.1)</td>
<td>33 (22.4) **</td>
</tr>
<tr>
<td>Witnessed parental violence b (n = 324)</td>
<td>110 (61.1)</td>
<td>39 (27.1) **</td>
</tr>
<tr>
<td>Subject’s substance-use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinks per week c (n = 317)</td>
<td>3.3 (10.0)</td>
<td>0.5 (2.5) **</td>
</tr>
<tr>
<td>Heavier drinking d (n = 317)</td>
<td>32 (18.1)</td>
<td>4 (2.9) **</td>
</tr>
<tr>
<td>Alcohol abuse without dependence e</td>
<td>6 (3.9)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Alcohol dependence e (n = 324)</td>
<td>24 (13.5)</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Used illicit drugs past 12 months e</td>
<td>38 (22.6)</td>
<td>4 (2.8) **</td>
</tr>
<tr>
<td>Used sedatives or analgesics e (n = 319)</td>
<td>38 (22.1)</td>
<td>19 (12.9) **</td>
</tr>
<tr>
<td>Partner’s alcohol use f</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinks per week e (n = 315)</td>
<td>31.1 (39.6)</td>
<td>2.3 (8.5) **</td>
</tr>
<tr>
<td>Heavier drinking f (n = 307)</td>
<td>123 (71.9)</td>
<td>21 (15.4) **</td>
</tr>
</tbody>
</table>

Percentages represent column percent with the exception of drinks per week. IPV = physical and/or sexual intimate partner violence experienced in the previous 12 months.

a Cases (victims) and controls (non-victims) were frequency-matched on race/ethnicity and age group in the study design.

b Subject’s history of abuse in family of origin.

c Column figures represent mean drinks per week and (standard deviation of the mean).

d Consumed five or more drinks per occasion once a month or more in the past 12 months.

e Defined by DSM-IV criteria; alcohol abuse (>1 vs. 0), alcohol dependence (>3 vs. <3 of 7 domains).

f As reported by abused subject.

∗ P-value < 0.05.

** P-value < 0.001.

the final model. The risk associated with the respondent’s alcohol dependence remained substantially increased (AOR 6.52–3.16) in all models but did not reach statistical significance. The respondent’s drug use was also a risk factor for IPV (AOR 5.44) but did not reach statistical significance (AOR 4.13, CI 0.97, 17.62) when partner alcohol use was added in the final model. The odds associated with IPV increased by 22% for every five drinks per week consumed by the partner, and heavier drinking by the partner increased the risk of IPV by five-fold.

A slightly different pattern occurred when examining physical and sexual IPV (data not shown). Relationship status (living with a partner) and witnessing parental violence consistently were found to be risk factors for physical IPV victimization across all models (AOR 3.49, CI 1.38, 8.86 and AOR 3.23, CI 1.36, 7.70, respectively, in the final model), but respondent’s alcohol and drug use were not significant risk factors in any model. The partner’s alcohol use (heavier drinking in particular; AOR 6.80, CI 2.41, 19.16) was also a significant risk factor for physical IPV. Only partner’s alcohol use was a significant risk factor for sexual IPV, increasing the risk of sexual IPV by 10% for every five drinks consumed per week (AOR 1.10, CI 1.03, 1.67).

4. Discussion

This study demonstrated a substantial independent association between partner alcohol use and IPV victimization among women. While women exposed to IPV in this study
clearly had comorbid alcohol and other drug use problems that need to be addressed, partner alcohol use appeared to be a major contributor to female physical as well as sexual victimization beyond the woman’s substance-use. These findings also contribute to our understanding of individuals at high risk of partner violence, especially KIlpatrick et al. (1997) and Testa et al. (2003) suggest that illicit drug use precedes or follows IPV, although the findings of Kilpatrick et al. (1997) and Testa et al. (2003) suggest that illicit drug use in particular may increase the risk of future assault. Nevertheless, Kilpatrick et al. (1997) found that alcohol and drug abuse increased after a new assault, even among women with no previous assault or assault history. These findings and those of others (Chalk and King, 1998; Ehrensaft et al., 2003) suggest that women may ‘self-medicate’ to alleviate the effects of partner violence.

Our study sample reported a high prevalence of family violence, with nearly 40 and 45% of women reporting exposure to childhood physical abuse and parental violence, respectively. Some general population surveys have reported substantially lower proportions among women, with estimates ranging from less than 10 to 25% for childhood physical abuse and for parental violence (Bensley et al., 2003; Coker et al., 2002; Ehrensaft et al., 2003). Against Women Survey (Tjaden and Thoennes, 2000b) found childhood abuse data comparable to ours while the national couples study by Caetano et al. (2003) revealed that 51% of women experienced childhood abuse and 27% witnessed parental violence.

The current study has several limitations that should be noted. First, the overall as well as subgroup small sample sizes may have limited our ability to detect significant risk factors, such as the respondent’s substance-use, in the full cross-sectional, our data are supported by theoretical models of partner violence, which suggest that childhood abuse and parental violence may lead to substance abuse and IPV later in life (Ehrensaft et al., 2003; Jouriles et al., 2001; Stein et al., 2002). It remains unclear whether substance-use precedes or follows IPV, although the findings of Kilpatrick et al. (1997) and Testa et al. (2003) suggest that illicit drug use in particular may increase the risk of future assault. Nevertheless, Kilpatrick et al. (1997) found that alcohol and drug abuse increased after a new assault, even among women with no previous assault or assault history. These findings and those of others (Chalk and King, 1998; Ehrensaft et al., 2003) suggest that women may ‘self-medicate’ to alleviate the effects of partner violence.

Table 2
Risk factors for intimate partner violence victimization among women presenting to a hospital emergency department

<table>
<thead>
<tr>
<th>Relationship status</th>
<th>N</th>
<th>Model 1</th>
<th>AOR (95% CI)</th>
<th>Model 2</th>
<th>AOR (95% CI)</th>
<th>Model 3</th>
<th>AOR (95% CI)</th>
<th>Model 4</th>
<th>AOR (95% CI)</th>
<th>Model 5</th>
<th>AOR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with a partner</td>
<td>126 (47.4)</td>
<td>4.20 (2.40, 7.36)</td>
<td>4.00 (2.19, 7.31)</td>
<td>3.60 (1.94, 6.70)</td>
<td>3.28 (1.74, 6.18)</td>
<td>2.55 (1.22, 5.37)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently not married or living with a partner</td>
<td>25 (9.4)</td>
<td>1.30 (0.53, 3.16)</td>
<td>1.37 (0.53, 3.58)</td>
<td>1.16 (0.42, 3.20)</td>
<td>1.08 (0.39, 3.00)</td>
<td>1.43 (0.31, 6.51)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>115 (41.2)</td>
<td>1.00 Reference</td>
<td>1.00 Reference</td>
<td>1.00 Reference</td>
<td>1.00 Reference</td>
<td>1.00 Reference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood physical abuse</td>
<td>95 (35.7)</td>
<td>2.34 (1.23, 4.45)</td>
<td>2.30 (1.18, 4.45)</td>
<td>2.17 (1.08, 4.38)</td>
<td>1.61 (0.70, 3.68)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Witnessed parental violence</td>
<td>123 (46.2)</td>
<td>3.12 (1.72, 5.65)</td>
<td>2.71 (1.47, 5.04)</td>
<td>2.70 (1.45, 5.05)</td>
<td>2.21 (1.07, 4.58)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number drinks per week</td>
<td>0.95 (0.56, 1.61)</td>
<td>0.87 (0.58, 1.29)</td>
<td>0.84 (0.51, 1.37)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy drinking</td>
<td>12 (4.5)</td>
<td>1.57 (0.32, 7.75)</td>
<td>1.46 (0.34, 10.18)</td>
<td>1.30 (0.20, 8.64)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol dependent—DSM-IV</td>
<td>25 (9.4)</td>
<td>6.52 (0.91, 46.62)</td>
<td>3.29 (0.38, 21.45)</td>
<td>3.16 (0.23, 43.85)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used illicit drugs</td>
<td>39 (14.7)</td>
<td>5.44 (1.38, 21.45)</td>
<td>4.13 (0.97, 17.62)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used sedatives or analgesics</td>
<td>43 (16.2)</td>
<td>0.82 (0.32, 2.12)</td>
<td>0.78 (0.26, 2.34)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner’s no. drinks per week</td>
<td>1.22 (0.94, 1.59)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner’s heavy drinking</td>
<td>122 (45.9)</td>
<td>5.07 (2.07, 12.39)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AOR: Adjusted odds ratio; 95% CI: 95% confidence interval.

- Cells (victims) and controls (non-victims) were frequency-matched on race/ethnicity and age group, factors controlled for in each model, N = 267.
- Column percent; may not add up to 100% due to rounding.
- Continuous variable; mean = 2.30, standard deviation = 8.28 for all subjects included in these models; estimates represent the increased risk for every five drinks consumed per week.
- Continuous variable; mean = 18.8, standard deviation = 32.1 for partners of all women included in these models; estimate represents the increased risk for every five drinks consumed per week as reported by abused subject.

- "Consumed five or more drinks per occasion once a month or more in the past 12 months."
- "Continuous variable; mean = 3.12, standard deviation = 5.65 for all subjects included in these models; estimates represent the increased risk for every five drinks consumed per week as reported by abused subject."
model. Small sample size may have also contributed to the lack of any major differences between physical and sexual violence with one-third of the women reporting sexual IPV, although all of the women who experienced sexual violence also experienced physical IPV. Partner violence is often multifaceted, making it difficult to discern discrete differences in the effect of each component.

Second, it is difficult to identify what the effect may have been of the refusal rate among cases without data available on refusals. It is possible that these women were more likely to be at risk for increased severity of IPV and/or substance abuse but, due to past negative experiences with disclosure or fear of their partner and the legal system (Bacchu et al., 2002; Durant et al., 2000; Sleset, 1998; Smith et al., 1995), they avoided further scrutiny. It is also possible that refusers were less likely to be at increased risk and thus less interested in the study. Further, control subjects may have under-reported IPV for reasons similar to those of non-participating cases. Social desirability could also account for under-reporting of IPV. In addition, social desirability may produce a spurious relationship between family violence, substance abuse and IPV, if these relationships reflect differences in the willingness to disclose socially stigmatized behaviors. Although not measured in the current study, there is little evidence to suggest that social desirability is related to the CTS or that controlling for social desirability eliminates the relationship between the CTS and other demographic, personality, or marital relationship factors (Straus, 1990b). The effect of under-reporting either IPV or substance-use, however, would be to bias the estimate toward the null.

Third, the substance-use measures were limited somewhat in their scope. The measures of alcohol abuse and dependence used in this study do not explicitly measure the effects of alcohol misuse on adult role functioning that may be associated with IPV. Knowledge of adult role functioning among both subject and partner may have better elucidated the relationship between alcohol misuse and IPV. The measure of drug use in this study was limited by its lack of specificity with regard to severity, with similar implications in terms of its relationship with adult role functioning. In addition, although there is evidence to suggest that self-reports of alcohol intake are reliable compared to biological markers in ED patient populations (Cherpitel, 1997; Treno et al., 1998), study findings on substance-use collected by proxy have varied. Some studies suggest that spouses and other next of kin may underestimate subject alcohol use, but overall the weight of evidence supports proxy estimates of alcohol consumption as relatively reliable (Graham and Jackson, 1993; Metzner et al., 1989; Passaro et al., 1997). Few substance-use measures were collected from respondents regarding their partners. Although it is possible that reliable information on illicit drug use may be more difficult to ascertain than alcohol use when obtained by proxy, more detailed information on partner alcohol and other drug use may have provided a broader understanding of the contribution of partner substance-use to the risk of IPV.

Finally, these findings may be applicable only to those who seek ED care in an under-served urban area and who are identified as potential victims of partner violence. We do not know the extent to which screening for IPV was implemented in the ED during the study period; therefore, this sample may not be representative of all abused women who seek care in the ED. Further, individuals who use private health care services or reside in non-urban settings may differ from the study population in terms of sociodemographic factors or prevalence of violence in their intimate relationships.

Screening for IPV among women who present to the ED for care is recommended by professional organizations (Joint Commission on Accreditation of Healthcare Organizations, 1992; American College of Emergency Physicians, 2004), and is an important step in determining who is at risk for injury and other health problems arising from relationship violence. Our findings suggest that including questions on substance-use, among both women presenting to the ED and their partners, may further assist healthcare providers in identifying women at high risk of IPV and creating an opportunity to provide brief intervention or referral for substance abuse treatment as well.

Asking women to reveal a history of childhood violence may be problematic in the ED setting but it is clearly within the realm of domestic violence counseling. Once identified as at risk for IPV and referred to an IPV intervention resource, the individual may then have the opportunity to address not only partner violence issues, but also the effects of family violence. Future longitudinal studies are needed to examine the impact of addressing exposure to childhood violence and the comorbidities of alcohol and other drug use in the context of partner violence.

Acknowledgement

This study was supported by a grant (R37-AA10908) from the National Institute on Alcohol Abuse and Alcoholism to the University of Texas School of Public Health.

References


