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Perpetration of intimate partner violence by young adult males: The association with alcohol outlet density and drinking behavior

Martha W. Waller [a,*], Bonita J. Iritani [a], Sharon L. Christ [b,c], Carolyn Tucker Halpern [d], Kathryn E. Moracco [d], Robert L. Flewelling [a]

[a] Pacific Institute for Research and Evaluation, Associate Research Scientist, 1516 E. Franklin Street, Suite 200, Chapel Hill, NC 27514-2812, United States
[b] Department of Child Development and Family Studies, Purdue University, United States
[c] Department of Statistics, Purdue University, United States
[d] Gillings School of Global Public Health, University of North Carolina at Chapel Hill, United States

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ABSTRACT

Objective: This study examined the association between alcohol outlet density and male to female intimate partner violence (IPV).
Method: Data were analyzed from a national probability sample of males who reported a current heterosexual relationship ($N=3194$). Multinomial logistic regression was used to examine the likelihood of having perpetrated IPV.
Results: High alcohol outlet density was associated with having perpetrated physical only IPV (odds ratio [OR]=2.51; 95% confidence interval [CI]: 1.21–5.20). Outlet density was not associated with greater odds of sexual IPV perpetration.
Conclusions: Alcohol outlet density was found to be associated with perpetration of physical IPV. Developing environmental strategies with respect to alcohol outlets could potentially reduce perpetration of male-to-female physical IPV.

1. Introduction

Intimate Partner Violence (IPV) against women is a widespread problem and linked to serious adverse physical and mental health outcomes. More than one in three women (35.6%) in the United States have experienced rape, physical violence, and/or stalking by an intimate partner in their lifetimes. According to the 2010 National Intimate Partner and Sexual Violence Surveillance Survey (NISVS), women who experience IPV are more likely to report asthma, irritable bowel syndrome, diabetes, frequent headaches, chronic pain, difficulty sleeping, and activity limitations than women who have not experienced IPV (Black et al., 2011).

Strong positive associations between individual alcohol use and perpetration of intimate partner violence (IPV) are well-established (Fals-Stewart et al., 2005; Lipsky et al., 2005; McKinney et al., 2010; Murphy et al., 2005; Slep et al., 2010; Stappenbeck and Fromme, 2010; Thompson and Kingree, 2006; Walton-Moss et al., 2005). Greater alcohol consumption is associated with more male perpetrated violent acts and more severe violence, and alcohol use by the perpetrator increases the likelihood of injury (Graham et al., 2011; Leonard and Mudar, 2003; Leonard and Quigley, 1999; Martin et al., 2010; McKinney et al., 2010; Murphy et al., 2005; Testa et al., 2003; Thompson and Kingree, 2006; Tjaden and Thoennes, 2000). The co-occurrence of alcohol use and sexual IPV has been well documented in the research literature. Among female victims of IPV, aged 18–65, attending family practice clinics, Coker et al. (2000) found that compared to no drug or alcohol use by a partner, if the partner was reported to have an alcohol problem, the adjusted odds ratio of experiencing both sexual and physical IPV was 6.1 (3.3, 11.3). Likewise, Parkhill and Abbey (2008) examining a sample of male college students found that 58% of the sample acknowledged sexually assaulting a dating partner and of those, 52% committed at least one sexual assault while intoxicated (Parkhill and Abbey, 2008).

1.1. Alcohol outlet density and male to female intimate partner violence

The strong positive associations between individual alcohol use and violence have led researchers to examine whether and how access to alcohol is associated with various alcohol-related consequences. A number of studies have reported a relationship between the density of alcohol outlets and higher levels of alcohol consumption among adults and youth, a higher occurrence of alcohol-related crime, violence, injury, and child maltreatment

* Corresponding author. Tel.: +1 919 265 2631; fax: +1 919 265 2659.
E-mail address: mwaller@pire.org (M.W. Waller).

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to name a few (Freisthler et al., 2004; Gorman et al., 2001; Gruenewald et al., 2002, 2006; MacKinnon et al., 1995; Scribner et al., 1995; Treno et al., 2001).

Exactly how alcohol outlet density and male to female partner violence (MFPV) are related is unclear. There is the possibility of a direct association between the two or an indirect relationship that is mediated by another factor, or both. Several theories describe the possible underlying mechanisms for the association between outlet density and violence in a general way that could be applied to MFPV as well. The association between outlet density and violence was initially thought to be due in large part to the increased availability of alcohol; that is, greater alcohol outlet density, whether on-premise or off-premise (for example, bars and liquor stores, respectively), makes alcohol more easily accessible, leading to greater alcohol consumption and in turn, more of the associated consequences including MFPV. Elaborating on that supposition, Livingston et al. (2007) suggested a posteriori two possible explanations for why this association may exist. First, the authors proposed that greater density may cause more competition among the alcohol outlets, which would result in price decreases and consequently, greater consumption of alcohol (Livingston et al., 2007). They also proposed an alternative hypothesis that outlet density may influence the quality and characteristics of the local community environment (Livingston et al., 2007). The latter presumes that alcohol outlets actually serve to attract trouble, and in particular, males at risk for perpetrating IPV. In other words, outlets may attract the "wrong crowd," increasing the likelihood of MFPV occurring regardless of alcohol consumption. The first hypothesis that competition among more outlets leads to greater consumption would suggest an indirect link between alcohol outlet density and MFPV that is mediated by alcohol consumption. The second hypothesis would suggest potentially both an indirect and perhaps more interestingly, a direct association between alcohol outlet density and IPV by suggesting that high alcohol outlet density may attract people more likely to engage in MFPV irrespective of their drinking behavior.

Yet another explanative theory, for which there is support for in the research literature, is routine activities theory (Stockwell and Gruenewald, 2004). This theory posits that alcohol outlet density influences violence by altering one's "routine drinking activities". In other words, behaviors such as whether one drinks at home or at bars and restaurants, and whether one drinks socially with friends or alone are affected by the density, and possibly type, of outlets in the immediate environment (Stockwell and Gruenewald, 2004). This theory would predict a direct association between outlet density and MFPV perpetration and possibly, although not necessarily, an indirect relationship through increased drinking.

Neither Livingston et al. (2007) nor Stockwell and Gruenewald (2004) studied these theories within the context of MFPV. However, Cunradi (2010) specifically considered the relationship of alcohol outlet density to IPV. Drawing on Livingston et al. (2007) and Stockwell and Gruenewald's (2004) work as well as social disorganization theory, she proposed three explanations for why outlet density may be associated with IPV. Cunradi (2010) described three social mechanisms through which alcohol outlets, in conjunction with neighborhood conditions, may exacerbate IPV risk (Cunradi, 2010). First, the greater number of alcohol outlets in a neighborhood may indicate more accepting or tolerant community norms towards IPV in general and MFPV in particular (Cunradi, 2010). Building on the increased access to alcohol supposition, Cunradi further argued that greater outlet density may promote problem alcohol use among at-risk couples, increasing the likelihood of MFPV. Alternatively, this could be interpreted within the context of routine activities theory such that the routine drinking behaviors of at-risk couples change in areas of high alcohol outlet density leading to increased risk of MFPV. Finally, Cunradi (2010) argued that alcohol outlets provide environments where persons at-risk for perpetrating and experiencing IPV may gather and "mutually reinforce IPV-related attitudes, norms, and problem behaviors" (Cunradi, 2010). This would correspond to Livingston et al. (2007) theory that high alcohol outlet density may attract persons more likely to perpetrate or experience IPV. These explanations would suggest that both direct and indirect relationships between alcohol outlet density and IPV exist. Although not discussed by Cunradi (2010), there is also the possibility that the type of alcohol outlet is important. Off-premise outlets such as liquor stores may differ in their relationship to IPV compared to on-premise outlets such as bars or restaurants, although exactly how is uncertain. Finally, outlet density may influence males differently from females.

To date, only a small number of studies have examined the association between alcohol outlet density and IPV, most of which have been ecologic studies. Gorman et al. (1998) examined Uniform Crime Report (UCR) data from the 223 large municipalities in New Jersey and found no association between alcohol availability and IPV. This may be due to the geographic size examined; recent research has concluded that smaller geographic units may have a stronger association. Indeed, Cunradi (2011) found a significant positive association between off-premise alcohol outlet density and IPV-related police calls and crime reports based on electronic data processing grids (averaging 0.17 square miles) in Sacramento, California (Cunradi et al., 2011). Livingston (2010, 2011) examined aggregate police-recorded domestic violence data by postal code in Melbourne, Australia and found a significant positive relationship between general (pub) license, on-premise and packaged liquor license density with domestic violence rates (Livingston, 2011), though initial cross-sectional analyses found a positive association only for general license density (Livingston, 2010). Police and crime report data have limitations, however, including representing only cases reported to law enforcement, lacking individual-level data such as the perpetrator's gender and alcohol use characteristics, and, in the case of police calls, of possibly including multiple calls per event (Cunradi et al., 2011). Importantly, McKinney et al. (2009) examined a national population-based sample of 1597 married or cohabiting couples in the U.S. and reported a significant positive association between alcohol outlet density at the zip code level and MFPV (McKinney et al., 2009). The researchers also found that on-premise alcohol outlet density was positively associated with MFPV while off-premise seemed not to be. In order to address these gaps, further epidemiologic study of the outlet density and IPV relationship is needed using a dataset with information on individual-level and neighborhood-level characteristics and which includes the large segment of people who have an intimate partner but are not married or cohabiting.

1.2. Study aims and hypotheses

This study furthers our understanding of the role of alcohol outlet density specifically in MFPV among a U.S. nationally representative sample of young adult men (i.e., 18–27). To better understand the role of alcohol use and outlet density in different types of IPV, we distinguish between having perpetrated only physical IPV versus having perpetrated either sexual IPV only or both physical and sexual IPV. Specifically, we hypothesize that there should be a direct effect of alcohol outlet density at the census tract level on male perpetration of each of these combinations of violence, based on the suppositions of routine activities and social disorganization theories. We next examine the