TITLE: VICTIM RESPONSES TO VIOLENCE: THE EFFECT OF ALCOHOL CONTEXT ON CRIME LABELING

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ABSTRACT

The labeling of an incident as a crime is an essential precursor to the use of criminal law, but the contextual factors that influence this decision are unknown. One such context that is a frequent setting for violence is the barroom. This study explored how the setting of a violent incident is related to the decision by victims to label it as a crime. It tested the hypothesis that violent incidents that took place in or around a licensed premises were less likely to be regarded as crimes than violence in other settings. The hypothesis was tested using a pooled sample of respondents from successive waves of the Crime Survey for England and Wales (2002/3-2010/11). Logistic regression models controlled for demographic factors, victim behavioral characteristics and incident-specific factors including the seriousness of the violence. Respondents who were in or around a licensed premises at the time of victimization were less likely to regard that violence as a crime (Adjusted odds ratio 0.48, 95% Confidence intervals 0.34–0.67) than respondents who were victimized in other locations. Despite a disproportionate amount of violence taking place in barrooms, it appears that the criminal nature of violence in these spaces is discounted by victims. The findings emphasize how context affects victim interpretations of crime and suggests a victim-centred reconceptualization of the ‘moral holiday’ hypothesis of alcohol settings.

Victims of crime frequently rely on informal responses to criminal events (Black, 1976; Jacques & Rennison, 2013). A common response is to not 'label' or recognize even very harmful incidents as a crime (Hough & Mayhew, 1985). Although the victim's decision to label an incident as a crime is an essential stage in the criminal justice process, the importance of this 'crime discounting' has been overlooked. Understanding how victims respond to victimization has a number of important implications: it reflects public attitudes towards crime; it demonstrates the limits of the criminal justice system to identify and punish crime; it informs the identification and support of victims; and it contributes to the understanding of the 'dark figure' of unreported crime. By failing to control for differences in victim attitudes about whether an incident was "worthy of police attention" (Black, 1979: 20), research on victim behaviors such as reporting to the police implicitly assume that all victims view the same crime as equally 'crimeworthy'. Young (1988) suggests that this is unlikely and survey evidence supports this position (Brennan, 2014). Subcultural theories of crime suggest that different contexts prompt different responses to and attitudes about crime (Wolfgang & Ferracuti, 1967; Anderson, 1999; Ellickson, 1991). Building on these and overlapping theories from the sociology of law, victimology and substance misuse, this study seeks to explore the role of contextual factors – specifically, alcohol-related factors – on victim's decision to label violent victimization as a crime.

MECHANISMS OF CRIME LABELING

Ruback and colleagues (Ruback, 1994; Ruback, Menard, Outlaw & Schaffer, 1999; Ruback & Thompson, 2001; Ruback, Gupta & Kohli, 2004;) have shown that, in addition to the consequences of an offence, offender characteristics, victim characteristics, precipitatory factors and incident-specific factors can all affect how a victim of violence views their victimization. Therefore, the 'prototypicality' of a crime is informed by contextual factors as well as its legality. Examples of 'crime discounting' can be found among different victim groups and are highly context-dependent. In the case of violence between children, Finkelhor and Wolak (2003) found that caregivers regarded only 55% of the violent offences against their children as crimes or 'police matters'. Labeling these incidents as crimes was predicted by injury to the victim, prior experience with the police, female victim, multiple perpetrators and an increasing age differential between the victim and the perpetrator. Åkerström's (2002) study of care workers has detailed how they do not interpret the regular assaults

they suffer at work as violence. There is a substantial body of literature on nurses' discounting attitudes towards work-related assaults (e.g. Levin, Hewitt, & Misner, 1998; Smith-Pittman & McKoy, 1999).

The mechanism by which discounting occurs is unclear. Domestic abuse research has shown that many victims 'neutralize' the impact of their victimization and do not identify their abuse as criminal (Ferraro & Johnson, 1983), while Brennan (2014) has suggested that, for many, the discounting of violence is due to 'normalization' caused by frequent exposure to violence. Controlling for victim characteristics, neighbourhood effects and incident characteristics, Brennan (2014) found that labeling was largely influenced by the impact of the incident on the victim. However, the study did not address the issue of contextual factors such as victim behavior or location of incident in the decision to label violence as a crime. In light of this, the present study seeks to determine the influence of place and victim behavior on labeling. Building on several multi-disciplinary theories, this study specifically focuses on the role of victim's consumption of alcohol prior to victimization and the role of the barroom as an influence on how victims think about their victimization.

ALCOHOL AND VIOLENCE

Approximately 60% of violent incidents in England and Wales involve alcohol. Almost half of all victims of violence in 2010/11 perceived at least one of their assailants to be under the influence of alcohol (Home Office, 2011), while approximately 29% of victims of violence who completed the British Crime Survey between 2002/3 and 2007/8 had been drinking prior to the incident (Brennan, Moore, & Shepherd, 2010). Violence in or around pubs and nightclubs accounts for approximately 20% of all violence recorded by the British Crime Survey (Home Office, 2011). In addition to their frequent co-occurrence, violence involving alcohol is less likely to be reported to the police than other violence (Brennan, 2011), suggesting that the extent of the problem is underestimated. While the actions and attitudes of those who commit violence while under the influence of alcohol have received much attention (McMurran et al., 2006), the responses of their victims and the relevance of alcohol for these victims has largely been overlooked.

THEORETICAL PERSPECTIVE

Variations in attitudes towards violence and victimization have been observed between subcultures, with more violent subcultures more likely to support informal responses to crime (Wolfgang & Ferracuti, 1967). Anderson (1999), in a study of a low-income, inner-city American community found a strong propensity for informal responses to victimization. The high prevalence of violence in this community created an environment where violence was normal and responses to victimization were reinforced through social norms and incentives such as 'respect'. The present study proposes that alcohol use and alcohol settings generate a similar, temporary subculture wherein the discounting of violence as a crime is reinforced through a process of normalization.

A wide variety of theoretical perspectives have been employed in an attempt to explain the relationship between alcohol and crime. Whether the mechanisms proposed to explain this relationship are pharmacological, psychological or sociological, they all maintain the position that alcohol-related crime is distinct from other types of crime. Settings in which alcohol is typically consumed occupy a privileged position in many Western societies and the use of alcohol in a social context has been shown to influence the social norms of that setting (MacAndrew & Edgerton, 1969; Copes, Hochstetler, & Forsyth, 2013). MacAndrew and Edgerton (1969) proposed that drinking episodes represent a moral 'time-out' during which the parameters of acceptable behavior are widened and Hobbs, Lister, Hadfield, Winlow, and Hall (2003) described dedicated drinking environments as 'liminal spaces' that are not subject to the same rules as other times and spaces. From a social psychological perspective, Wells, Graham and Tremblay (2007) have also identified the barroom as a space characterized by lax moral behavior as a result of deindividuation, the adoption of group norms, social influence and situational cues for aggression.

For drinkers who are frequently exposed to barroom violence, the social rules of drinking contexts may influence their interpretation of 'crime prototypicality'. Efforts to understand these factors have illustrated the delicate balance between acceptable and unacceptable violence in this context. In their studies of bar-room fighters Copes et al. (2013) and Graham and Wells (2003) have described complex and often contradictory sets of rules that govern acceptable behavior before, during and after violence while Tomsen (1997) has argued that violence in alcohol settings reflects a 'carnival' atmosphere when social control is relaxed within a dedicated

space and time. Spectators to this 'carnival' often endorse and reinforce violent attitudes and behaviors; although, only a small proportion actually engage in violence. Wells, Neighbors, Tremblay, and Graham (2011) found that injunctive norms between peers in barroom settings encourage the use of violence to defend oneself and reinforces the belief that peers also support the use of violence. With regard to the use of law, Brennan (2011) found that both victim's alcohol intoxication and alcohol setting were predictive of victims not reporting violent victimization to the police. This cumulative evidence supports the notion of the barroom and its environs as 'special' spaces characterized by violent norms. However, a glaring omission from these largely qualitative samples has been respondents who regarded themselves as victims of barroom violence. Consequently, it is unclear if attitudes supportive of violence persist in those who have suffered harm in this arena.

In summary, this paper addresses a deficit in understanding how victims respondent to violence in alcohol settings. It combines Anderson's theory (that, in violent subcultures normative codes govern victim law-related attitudes and behavior) with multidisciplinary observations that barroom's are 'liminal' spaces with their own subcultural values to generate a space where victims interpret violence differently to other settings. Consequently, it is hypothesized that being in or around a barroom at the time of victimization will be associated with a reduced likelihood of that incident being regarded as a crime.

METHODS

SAMPLE

The initial sample was all respondents to the British Crime Survey (BCS) between 2002/03 and 2010/11. The BCS is a nationally representative survey of English and Welsh respondents' experience of crime in the twelve months preceding completion of the survey. Details of the BCS sampling procedures are available in Bolling, Grant, and Sinclair (2007), Nicholas, Kershaw, and Walker (2007) and Fitzpatrick and Grant (2011).

Inclusion criteria were that (i) survey respondents were over 15 years of age and living in a household, as opposed, for example, to being homeless or living in a communal establishment, such as a hospital or prison and (ii) respondents answered "Yes" to the question: "[In the past twelve months] has anyone, including people you

know well, deliberately hit you with their fists or with a weapon of any sort or kicked you or used force or violence in any other way?".

BCS data sets for the years 2002/3 to 2010/11 ; Home Office Research, Development and Statistics Directorate and BMRB Social Research, 2007 a–c; 2008a–b; 2009; 2010 a–d; 2012a–b; 2013a–f; Home Office Research, Development and Statistics Directorate and TNS-BMRB, 2012) were extracted electronically from the UK Data Service archive (http://www.ukdataservice.ac.uk/). Nine successive waves were used to maximize the sample of relatively rare events (violent victimization). BCS methodology remained consistent during this period, allowing aggregation of yearly data sets. The data were pooled to form an initial data set of 403,145 respondents describing 20,532 violent victimizations. Following convention, only the most recent violent incident reported was included in the sample resulting in an eligible sample of 9,465 respondents each describing just one incident.

MEASURES

Crime labeling

Participants were asked to rate the extent to which they regarded the incident as a crime or not a crime. The variable was derived from a survey item wherein respondents indicated whether they regarded the incident as 'Just something that happens', 'Wrong, but not a crime' or 'A crime'. From this, a binary variable 'A crime' (1) or 'Not a crime' (0) was created.

Victimization in or around a barroom

Respondent who answered in the affirmative to the question "[Did the incident happen] in or around a nightclub or disco…a pub, bar or working mens' club" were coded as (1) and all other respondents were coded as (0).

Victim demographics[1]

Stylianou (2003) conducted a review of the literature on the relationship between ratings of crime seriousness and demographic factors, but found little consensus. While Stylianou's study focused on ratings of seriousness and not labeling, the two are likely to be related and the inclusion of demographic variables may provide insight into labeling behavior. The response options for *Victim sex* were 'Male' (1) and 'Female' (0). *Age* was recorded as a continuous variable. Respondent ethnicity was recorded as a dichotomous variable, 'White' (1) or 'Not white' (0). *Marital status* was dichotomized as 'Single' (1) or 'Not single' (0). *Qualifications* was a three-point ordinal scale reflecting 'No qualifications' (1), 'Second level qualifications or equivalent' (2) and 'Third-level qualifications' (3).

Victim behavioral characteristics

Frequency of visiting licensed premises. The amount of time spent in areas at increased risk for violence will increase that individual's likelihood of being a victim (Brennan et al., 2010; Felson, 1987; Lasley, 1989). Furthermore, familiarity with the drinking environments may normalize the experience of violence as a participant or a spectator and consequently affect an individual's response to victimization in this setting. Familiarity with alcohol settings was measured by the respondent's answer to the question: "In the last month, how many times did you visit a pub or bar in the evening?" Response options for this item were: 'None' (1), 'Between 1 and 3 times (Less than once a week)', 'Between 4 and 8 times (Once to twice a week)', 'Between 9 and 12 times (About 3 times a week)', or 'More than 12 times (Almost every day)'.

[1] A common demographic variable, income, was excluded from the models as a large proportion (35%) of responses on the variable, *household income*, were missing, which would have inefficiently reduced the sample size of the subsequent models. Brennan's (2014) previous multilevel analysis did not find any effect of income or neighborhood characteristics on crime labeling and so this variable was deemed unnecessary. Sub-analyses confirmed the absence of any mediating or moderating effect of household income on the relationship between incident location and crime labeling, justifying the exclusion of this variable. These sub-analyses are available from the author on request.

Alcohol consumption. Frequency of alcohol consumption can affect tolerance of alcohol, thereby reducing the altering effect of alcohol on perception. In addition, experience of drinking may normalize unusual behaviors that are associated with alcohol. Therefore, an alcohol consumption frequency variable was included in the model. Victims were asked how often they had an alcohol drink in the preceding 12 months. These were coded as 'Less than monthly' (1), 'Less than weekly' (2), 'Once or twice a week' (3) or 'More than twice a week' (4).

Number of victimizations reported. It is possible that, among those repeatedly victimized, a process of normalization takes place, reducing the perceived seriousness of violence (Garbarino, 1995). This effect was observed by Brennan (2014) and so was a potential confounder. A binary variable indicating more than one reported violent victimization was created ('one violent victimization' (0)/ 'more than one violent victimization' (1)).

Criminal history. Some victims have risky lifestyles that result in regular interaction with the law. Theoretically, this could affect their likelihood of labeling violence through a process of normalization and subcultural norms. In recognition of the growing literature on the victim-offender overlap, which has shown that many victims also have histories of offending (Jennings, Higgins, Tewksbury, Gover, & Piquero, 2010), a binary variable was included relating to whether the respondent had ever been a defendant in court ('No' (0)/ 'Yes' (1)). Unfortunately, this question was only asked of a randomly-selected sub-sample of respondents (25% of total sample). In light of this relative under-sampling, the non-specific nature of the alleged offence and the absence of information relating to conviction, this variable was limited to a sub-analysis and was not included in the main models.

Incident seriousness

The seriousness of an incident has been shown to be one of the strongest predictors of how an incident is perceived by the victim (Finkelhor & Wolak, 2003; Brennan, 2014). Three components of incident seriousness were included: physical harm, emotional harm and potential for harm.

Physical harm – Injury. Physical harm to the respondent was detailed through the suffering of an injury. This was recorded as a binary variable ('No' (0)/ 'Yes' (1)).

Emotional harm. A four-point ordinal scale measured emotional harm, as rated by the respondent: 'No emotional harm' (0), 'A little' (1), 'Quite a lot' (2) or 'Very much' (3).

Potential for harm - Weapon Used. The use of a weapon in the incident was recorded as a dichotomous variable with response options, 'No' (0) or 'Yes' (1).

Other labeling factors

Victim-offender relational distance. Black (1976) has suggested that the use of law is inversely related to social distance and this has been supported by studies of reporting to the police (Zaykowski, in press; Gottfredson & Hindelang, 1979), vignette studies on punishments (Rossi, Simpson, & Miller 1985) and research on crime labeling (Brennan, 2014). Respondents categorized the person or persons who assaulted them as 'Family' (1), 'Friends or acquaintances' (2) or 'Other' (3). It should be noted that this variable was only available for cases where respondents reported just one assailant (66.9% of cases).

Victim initiation of incident. If a victim used force first in the violent incident, it is likely that this would affect the perceived 'wrongness'of the incident (Ruback, Greenberg, & Westcott, 1984). Victim initiation (i.e. answering 'Yes' to the question "Did you use force first") was coded as 1, while no reported victim initiation was coded as 0.

***Offence attribution*.** In the aftermath of violence, victims may attribute the cause of the incident to a range of different factors, such as bad luck, their own recklessness or an offender's violent disposition. How they view the incident, e.g. as 'unjust', may influence their interpretation of its 'crimeworthiness' (Blum-West, 1985). Brennan (2014) found that incidents in which the respondent felt that they were targeted because of some personal characteristic were more likely to be labeled as crimes. In response to the question, "Can you tell me why you think this incident happened?", twelve options were available, to which respondents could indicate more than one reason. Responses that indicated that the respondent felt they were targeted as a result because of some personal characteristic (victim negligence, victim specifically targeted, victim was an easy target, victimized due to their race/ethnicity/religion, respondent victimized for being different) were coded as 1 and all other responses coded as 0.

Offender intoxication. While evidence exists to suggests that alcohol is sometimes regarded as a mitigating factor in violence (Quigley & Leonard, 2006), the evidence is inconsistent (Leonard, 2002). Respondents indicated whether they believed that the assailant(s) 'had' (1) or 'had not' (0) "had any alcohol immediately before the incident took place".

***Year of response*.** Nine binary 'wave' variables were created which corresponded to the financial year during which the respondent completed the survey.

STATISTICAL METHODS

In order to identify the relationship between a victim regarding the incident as a crime (crime labeling: dependent variable) and being in a licensed premises at the time of the incident (independent variable) while controlling for potential confounding effects, four logistic regression models were run. Analyses were undertaken using Stata 13 and robust standard errors were estimated using the Huber-White procedure. Model 1 included just the independent variable. Model 2 added demographic covariates. Model 3 added covariates relating to the individual's historical experience of alcohol use and violence. Model 4 added other covariates that have been shown to predict labeling an incident of violence as a crime (Brennan, 2014). As is common with the multivariate analysis of large-scale surveys, as more covariates were added, more data were lost from the

models through casewise deletion. The issue of missing data can be problematic if these data are missing as a result of systematic biases such as problems with survey questions or reluctance on the part of particular groups of respondents to answer certain questions. In order to identify trends in 'missingness' in the models, a new variable was created that was coded '0' if a case was included in a model and '1' if the case was excluded through listwise deletion (a new 'missing' variable was created for each of the four models). The covariates in each model were regressed on this variable to identify statistically significant predictors of 'missingness'.

RESULTS

Of the 9,066 respondents (99.7% of eligible sample) who described violence against them, 62.4% labeled the incident as a crime. Descriptive statistics for the variables are featured in Table 1.

Table 1 about here

Logistic regression models

In the unadjusted model (Model 1), being in or around a licensed premises at the time of victimization was associated with a reduced likelihood of labeling the incident as a crime (approximately 50% lower likelihood; Unadjusted odds ratio 0.65, 95% CI 0.59–0.72). Controlling for demographic, individual and incident-specific factors in three subsequent models, the effect of alcohol setting remained statistically significant.

Demographic factors had little influence on the relationship between the alcohol variables and the outcome. The introduction of variables relating to demographic characteristics in Model 2 had little effect on the predictive ability of the model; the pseudo R-squared statistic did not increase. The introduction of variables relating to alcohol consumption, frequency of visiting licensed premises and experience of violent victimization in Model 3 also did not affect the relationship between labeling and the alcohol variables, but did result in a small increases in Pseudo R-squared. This is pertinent given that number of violent victimization was strongly related to labeling. Frequency of visiting licensed premises in Model 3 was a statistically significant predictor of labeling.

In both cases, more frequent victimization and more frequent visits to licensed premises were negatively related to labeling.

In Model 4, the addition of factors that Brennan (2014) has shown to influence labeling did not affect the stability of the relationship between the alcohol setting and the outcome. The amount of variance explained by model 4 was a considerable improvement on that of other models, demonstrating the importance of these factors in victim labeling of crime. Broadly consistent with Brennan's findings, weapon use, emotional harm and relational distance were all positively related to labeling. The positive relationship between injury and labeling observed by Brennan (2014) was not replicated in these models. Sub-analyses that controlled for victim's history of offending through a proxy variable – ever being a defendant in court – found that alcohol setting remained a statistically significant (Adjusted odds ratio 0.57, 95% CI 0.47–0.70) predictor of crime labeling. As noted above, the sampling strategy employed by the CSEW presented some difficulty to the interpretation and comparison of the models as the sample sizes of each successive block were considerably reduced. However, the random sampling strategy employed ensured that these samples were broadly comparable and the characteristics of the samples remained consistent across the models. Logistic regression analyses found that the item relating to emotional response to victimisation was a statistically significant predictor of 'missingness'. Model 4 was re-run without this variable and found that its exclusion had no effect on the hypothesised relationship.

Table 2 about here

DISCUSSION

This study tested the association between contextual factors and victim's response to the criminal nature of their violent victimization. It tested the hypotheses that the setting of the violent incident, in this case, a drinking environment would be associated with a reduced likelihood of labeling the violence as a crime. The basis for this hypothesis was the proposal that alcohol consumption and drinking environments generate 'liminal'

subcultural situations whereby the standards of acceptable behavior are temporarily relaxed leading victims to recalibrate their attitudes towards violence accordingly.

As hypothesized, respondents who were victims of violence while in or around a licensed premises were less likely to regard that violence as a crime. This relationship remained stable when a series of potentially confounding variables were introduced into successive models. Demographic variables contributed little to the predictive ability of the model. In general, younger people were more likely to discount violence. White respondents were more likely to discount, although this effect disappeared when victim behavior and incident-specific factors were introduced. Single respondents were more likely to label violence as a crime, but again, this effect disappeared when incident-specific factors were controlled. In support of the normalization mechanism proposed, frequency of visiting a licensed premises predicted discounting and number of violent victimizations were associated with discounting, although these effects disappeared when incident-specific factors were controlled. Incident-specific factors were indeed strong predictors. The three incident seriousness variables – weapon use, injury and emotional harm – all positively predicted labeling. Finally, attributing the reason for the victimization to a characteristic of one's self, such as a racial motive or the feeling that one was an easy target, strongly predicted labeling.

The findings provide firm support for the position that dedicated drinking environments are a 'special' situation whereby victims of violence are more willing to discount the crimeworthiness of violence against them. Pease (1988) has noted that "crime is a mechanism of social response. Actions whose prevention is perceived to lie above a threshold of public interest are candidates for classification as crimes." (p. 1). In this sample, victims have been shown to be more likely to regard violence in and around licensed premises as being below that threshold of interest. This finding provides support for the position that drinking spaces have reduced moral standards, but also that the discounting effect appears to be a commentary on their own behavior rather than the behavior of their assailants. Those who suffer violence in this context appear to have reduced standards about their own right to safety. This aspect of the analyses presents an interesting challenge to the concept of the barroom as an arena of 'moral holiday'. 'Moral holidays' are scenarios during which the 'victimizer is denied' by society or by victims (Frieze & Browne, 1989), i.e. their offences are excused by participants in the

'carnival'. However, the effect observed in this study is a 'denial of victimization' (ibid.) – a consequence not of offenders' intoxication but of victims' own participation in this liminal space. Therefore, it appears that, in the context of violence, the term 'moral holiday' is an overly inclusive construct. It is more accurate to describe drinking environments in terms of 'tolerated risk' rather than 'moral holiday'.

Evidence from this study suggests that discounting violence in this setting is reinforced and maintained by individual and social norms about informal responses to crime. As suggested earlier, the findings may also reflect some underlying code of expected behavior in and around bars. If a victim endorses illicit behavior under the influence of alcohol, they may filter their own behavior in bars through this attitude and assume some of the responsibility for their own victimization. Copes et al. (2013) and Graham and Wells (2003) found that bar fighters adhered to a code of acceptable conduct during violence and expressed remorse or disdain when the code was violated. Perhaps a violation of this code by an assailant may lead to a victim being more likely to regard violent victimization as a crime. As Ruback (1994) has demonstrated, social influence affects a victim's use of law and this effect may extend to their perception of crime prototypicality. A refusal to invoke formal methods of social control in this context may reflect a desire to maintain honor in the eyes of one's peers. In addition, there may be overt peer pressure to discount the incident lest it adversely affect the regular activities of the group (Ellickson 1991). Anderson (1999) has described similar approaches to victimization whereby followers of the 'code' are obliged to show "heart" (p.306), while Stanko and Hobdell (1993) also discussed the need for men to demonstrate resilience following victimization. Overtly discounting violent victimization may be a way to perform such resilience. Finally, the reaction of peers to violence may provide cues about the 'crimeworthiness' of the incident.

However, the proposal that this 'tolerated risk' is maintained through normative processes has yet to be confirmed. A number of other factors may be responsible for generating the observed effect. At the pharmacological level, those victims in the sample who were intoxicated may not have remembered their victimization clearly and so implicitly or explicitly discounted the incident. Victims in bars may drink more than those drinkers who were victimized elsewhere, leading to greater likelihood of memory deficits among this group. Confirmation of this theory is beyond the scope of this research, but it would certainly be of value in

furthering an understanding of violence in this complex environment. Alternatively, crime labeling may be affected by a post-incident reconceptualization or 'neutralization' of the incident. The literature on domestic abuse has much to teach us on this mechanism. Taylor, Wood, and Lichtman (1983) have suggested that a victim, in an effort to protect the ego from the unpleasant condition of victimhood, may re-evaluate and minimize the seriousness or significance of the victimization. Adapting Sykes and Matza's (1957) analysis of delinquents' rationalizing of their criminal behavior, Agnew (1985) collated evidence that victims can activate a range of neutralizing techniques in order to discount and reconceptualize the effect and meaning of their victimization. As Ferraro and Johnson have noted "when these practical and social constraints are combined with love for and commitment to an abuser, it is obvious that there is a strong incentive – often a practical necessity – to rationalize violence" (1983: 328). Transferring this logic to the barroom setting, the decision to discount violence may be an attempt to exert control over one's environment. For many adults, bars are a primary leisure space (Measham & Brain 2005; Winlow & Hall 2006). Perceiving violence as criminal or serious may disrupt their enjoyment of alcohol settings by introducing uncertainty and forcing them to face a hitherto ignored risk. Furthermore, the refusal to accept a violent incident as a crime permits them to retain ownership over the event rather than relinquish control over the incident to the state.

In addition to individual mechanisms of discounting, it is important to question the societal factors that have created and perpetuated this 'tolerated risk'. Perhaps a societal tendency to blame intoxicated victims has been appropriated by the victims themselves? A review of guidance for the awarding of compensation for criminal injuries in the UK states that intoxication itself should not affect eligibility for compensation (Criminal Injuries Compensation Authority 2013). However, in practice, victims have been refused compensation on these grounds (Miers 2013). Further research with victims of alcohol-related violence is needed to understand how they understand their role in violence and the relevance of alcohol to this victimization.

The findings of this study serve to highlight the importance of context in the interpretation of crime by victims. Past research with victims has tended to overlook the 'milieu' of violence in favour of a focus on victims' attitudes towards the offender or the consequences. Despite alcohol settings being the scene of a disproportionate amount of assaults, its relevance to the victim has largely been overlooked. Perhaps this has

been a conscious decision on the part of researchers to keep the focus on the agents of violent incidents rather than the context. While this is understandable, particularly with a view of the avoidance of victim-blaming, the evidence that context affects the labeling of these incidents as crimes must be addressed as it may have important implications for the well-being of these victims.

The 'tolerated risk' proposed here is maintained by victims, but, to borrow from the domestic violence literature, "remaining with a violent man does not indicate that a woman views violence as an acceptable aspect of the relationship" (Ferraro & Johnson, 1983: 328). Similarly, discounting its status as a crime does not indicate that victims are consenting or accepting of the violence that was done to them. For some, discounting violence may be an explicit method for protecting oneself from the perceived harms of a victim identity or an altered worldview (Agnew, 1985). However, it also creates a decreased potential for the use of formal control to prevent repeat victimization. Therefore, the continued 'toleration of risk' in drinking environments observed in this study perpetuates the future risk of violence in this setting. Effective violence prevention is intelligence-led (Bullock, Erol, & Tilley 2006). Prevention initiatives in and around bars are dependent on information about where violence has taken place in the past (World Health Organization, 2004; Florence, Shepherd, Brennan, & Simon, 2011). The first step towards police ascertainment of information about violence is an acknowledgement by the victim that a crime has taken place. The more that discounting of violence in alcohol contexts is perpetuated by victims and the more 'victim blaming' attitudes are reinforced by society, the less potential police have to intervene to prevent harm and the longer alcohol settings and victim intoxication will serve as excuses for violence.

Limitations

A limitation of any cross-sectional study that aims to determine the effects of an event is the absence of pre-event data. In this study, for example, repeated measures information on change in victim's fear of crime following violence would have provided valuable insight into how change in perceived vulnerability was related to crime labeling. Similarly, it is unclear to what extent frequency of visiting licensed premises was affected by the violence in question, as base-levels of this activity may have affected the respondent's attitudes and norms towards alcohol-related violence (Wells et al., 2007).

It is important to ask what is meant by victimization in the context of this study. Victimization is not a concrete construct and an individual's victim status is open to interpretation. Unfortunately, there is a dearth of language to describe the nuances of participation in violence, which can lead to confusion and misinterpretation. For the purposes of this study, victims were defined in response to a specific question and no blame or culpability (or absence thereof) for their part in the violence was inferred. In an extreme interpretation of this definition, a mugger who is pushed to the ground during the course of a robbery could be perceived a victim of violence. Such an example emphasizes the difficulty in identifying 'pure victims' and has been discussed in great detail elsewhere (Christie, 1986; Schreck, Stewart, & Osgood, 2008). This study attempted to control for 'pure victimization' status by including a covariate relating to the victim's initiation of the incident ("Did you use force first?"). Even when this variable was included, barroom location continued to predict discounting. However, until the linguistic repertoire develops sufficiently, the definition of a victim will remain open to interpretation.

Von Hentig (1948) and many since have emphasized that victims and offenders in a society are not mutually exclusive groups. It could be proposed that many of the victims in this sample were also offenders who had a history of resistance to formal methods of social control, thus explaining the observed discounting. However, sub-analyses suggest that this is unlikely. Even when controlling for respondent history of being a defendant in court, the observed relationship between labeling and drinking setting remained strong. Of course, respondents may not have disclosed past histories of being a defendant or may even have avoided detection for their past crimes, but this is a weakness of all surveys that would need to be addressed through alternative methods such as data linkage.

The fact that respondents were asked questions about the labeling of crime while completing a *Crime* Survey may have affected their interpretation of events. Although a control group is not available to test this hypothesis, it is likely that the context of the survey would encourage respondents to label violence as a crime rather than discount it, suggesting that the observed prevalence of labeling may even be conservative.

While it likely that many of the respondents who were victimized in and around bars had been drinking at the time of the assault, it is also likely that some were not. The CSEW does not ask victims about their alcohol consumption prior to the incident unless they indicated that their respondent was under the influence of alcohol. This feature of the survey – presumably in order to avoid victim blaming – is understandable and commendable. Unfortunately, it limits the ability to understand the influence that intoxication might have played in victims' interpretations of the violence. In addition, the CSEW does not include information about the characteristics of the barroom. Certain bars are more likely to be associated with violence than others (Green & Plant, 2006). The type of licensed premises and its reputation among drinkers may have affected victims' perceptions of the amount of risk to be tolerated, thus affecting their labeling responses. At present, the potential for assessing this effect quantitatively is limited, but exploring this effect qualitatively could yield considerable insight into the appropriateness of violence in 'bad bars'.

With the current data set it was not possible to determine the generalizability of the findings to an international level. The discounting observed with regards to alcohol may be a symptom of the high levels of alcohol-related violence in the UK, relative to other countries (Hemström, Leifman, & Ramstad 2002). Although beyond the scope of this article, the requisite data to test such a hypothesis are available through the International Crime and Victimization Survey and replicating the findings observed in this study is a logical next step.

CONCLUSION

The study demonstrated a reduced likelihood among victims to regard violent victimization in and around bars as a crime. Coupled with findings from previous research (Brennan 2011), this study suggests that violent crime in this setting is not just under-reported, but under-labeled. Just as victims of domestic abuse employ techniques that ultimately expose them to future harm, the discounting demonstrated by this sample displayed tactics that would do little to reduce their risk of repeat victimization. Unfortunately, victim's tolerance of the risk of victimization in drinking spaces, coupled with societal tendency to attribute some blame to intoxicated victims, perpetuates the normalization and acceptability of alcohol-related violence. Finally, this study has demonstrated the importance of context on the labeling of crime. If police ascertainment of violence and care for those who

suffer violence is to be improved, these context-dependent interpretations of crimes need to be acknowledged and addressed.

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REFERENCES

Agnew, R. S. (1985). Neutralizing the impact of crime. *Criminal Justice and Behavior, 12*, 161–180.

Åkerstrom, M. (2002). Slaps, punches, pinches – but not violence: Boundary-work in nursing homes for the elderly. *Symbolic Interaction, 25*, 515–536.

Anderson, E. (1999). *Code of the street: Decency, violence, and the moral life of the inner city*. London, UK: WW Norton and Company.

Black, D. (1976). *The behavior of law*. New York: Academic Press.

Black, D. (1979). Common sense in the sociology of law. *American Sociological Review, 44*, 18–27.

Blum-West, S. R. 1985. "The seriousness of crime: A study of popular morality. *Deviant Behavior, 6*, 83–98.

Bolling, K., Grant, C., & Sinclair, P. (2007). *2006-07 British Crime Survey (England and Wales) technical report*. London: Home Office.

Brennan, I. R. (2014). When is violence not a crime? Factors associated with victims labelling violence as a crime. Unpublished manuscript. University of Hull.

Brennan, I. R. (2011). In vino silentium? Individual, situational, and alcohol-related factors in reporting violence to the police. *Violence and Victims, 26*, 191–207.

Brennan, I. R., Moore, S. C., & Shepherd, J. P. (2010). Risk factors for violent victimization and injury from six years of the British Crime Survey. *International Review of Victimology, 17*, 209–229.

Bullock, K., Erol, R., & Tilley, N. (2006). *Problem-oriented policing and partnership: Implementation of an evidence based approach to crime reduction*. Cullompton: Willan.

Christie, N. (1986). The ideal victim. In E. Fattah (ed.). *From crime policy to victim policy: Reorienting the Justice System* (pp. 17–30). Basingstoke, UK: Macmillan.

Copes, H., Hochstetler, A., & Forsyth, C. J. (2013). Peaceful warriors: Codes for violence among adult male bar fighters. *Criminology, 51*, 761–794.

Criminal Injuries Compensation Authority. (2013). *A guide to the Criminal Injuries Compensation Scheme 2012*. London, UK: Criminal Injuries Compensation Authority.

Ellickson, R. (1991). *Order without law*. London: Harvard University Press.

Felson, M. (1987). Routine activities and crime prevention in the developing metropolis. *Criminology, 25*, 911–932.

Ferraro, K .J., & Johnson, J. M. (1983). How women experience battering: the process of victimization. *Social Problems, 30,* 325–339.

Finkelhor, D., & Wolak, J. (2003). Reporting assaults against juveniles to the police: Barriers and catalysts. *Journal of Interpersonal Violence, 18*, 103–128.

Fitzpatrick, A., & Grant, C. (2011). *The 2010/11 British Crime Survey (England and Wales) Technical Report*, vol.1 (2nd ed). London: Home Office.

Florence, C., Shepherd, J., Brennan, I., & Simon, T. (2011). Effectiveness of anonymised information sharing and use in a health service, police and local government partnership for preventing violence related injury: Experimental study and time series analysis. *British Medical Journal*, 342d3313, 1–9.

Frieze, I. H., & Browne, A. (1989). Violence in marriage. In L. E. Ohlin & M. H. Tonry (eds.). *Family Violence*, (pp. 163–218). Chicago: University of Chicago Press.

Garbarino, J. (1995). *Raising children in a socially toxic environment*. San Francisco, CA: Jossey-Bass.

Gottfredson, M. R., & Hindelang, M. J. (1979). A study of the behavior of law. *American Sociological Review, 44*, 3–18.

Graham, K., & Wells, S. (2003).'Somebody's gonna get their head kicked in tonight!' Aggression among young males in bars – a question of values?" *British Journal of Criminology, 43*, 546–566.

Green, J., & Plant, M. A. (2007). Bad bars: A review of risk factors. *Journal of Substance Use, 12*, 157–189.

Hemström, Ö., Leifman, H., & Ramstedt, M. (2002). The ECAS survey on drinking patterns and alcohol-related problems. In T. Norstrom (ed.). *Alcohol in postwar Europe: Consumption, drinking patterns, consequences and policy responses in 15 European countries* (pp. 115–136). Stockholm: National Institute of Public Health.

Hobbs, D., Lister, S., Hadfield, P., Winlow, S., & Hall, S. (2003). "Receiving shadows: Governance and liminality in the night-time economy." *British Journal of Sociology, 51*, 707–717.

Home Office (2011). *Nature of violent crime data file, Table 7.10*. http://www.homeoffice.gov.uk/publications/science-research-statistics/research-statistics/crime-research/nature-violent-crime [Accessed 7 March 2013].

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2007a). *British Crime Survey, 2002-2003* [computer file]. *6th Edition.* Colchester, Essex: UK Data Archive [distributor]. SN: 5059, http://dx.doi.org/10.5255/UKDA-SN-5059-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2007b). *British Crime Survey, 2003-2004* [computer file]. *6th Edition.* Colchester, Essex: UK Data Archive [distributor]. SN: 5324, http://dx.doi.org/10.5255/UKDA-SN-5324-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2007c). *British Crime Survey, 2004-2005* [computer file]. *6th Edition.* Colchester, Essex: UK Data Archive [distributor]. SN: 5347, http://dx.doi.org/10.5255/UKDA-SN-5347-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2008a). *British Crime Survey, 2005-2006* [computer file]. *9th Edition.* Colchester, Essex: UK Data Archive [distributor]. SN: 5543, http://dx.doi.org/10.5255/UKDA-SN-5543-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2008b). *British Crime Survey, 2006-2007* [computer file]. *5th Edition.* Colchester, Essex: UK Data Archive [distributor]. SN: 5755, http://dx.doi.org/10.5255/UKDA-SN-5755-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2009). *British Crime Survey, 2007-2008* [computer file]. *3rd Edition.* Colchester, Essex: UK Data Archive [distributor]. SN: 6066, http://dx.doi.org/10.5255/UKDA-SN-6066-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2010a). *British Crime Survey, 2008-2009* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 6367, http://dx.doi.org/10.5255/UKDA-SN-6367-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2010b). *British Crime Survey, 2009-2010* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 6627, http://dx.doi.org/10.5255/UKDA-SN-6627-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research. (2010c). *British Crime Survey, 2008-2009: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 6369, http://dx.doi.org/10.5255/UKDA-SN-6369-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2010d). *British Crime Survey, 2009-2010: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 6628, http://dx.doi.org/10.5255/UKDA-SN-6628-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2012a). *British Crime Survey, 2010-2011: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 6953, http://dx.doi.org/10.5255/UKDA-SN-6953-1

Home Office Research, Development and Statistics Directorate and TNS-BMRB (2012). *British Crime Survey, 2010-2011* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 6937, http://dx.doi.org/10.5255/UKDA-SN-6937-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2013a). *British Crime Survey, 2002-2003: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor], July 2013. SN: 7329, http://dx.doi.org/10.5255/UKDA-SN-7329-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2013b). *British Crime Survey, 2003-2004: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 7326, http://dx.doi.org/10.5255/UKDA-SN-7326-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2013c). *British Crime Survey, 2004-2005: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 7324, http://dx.doi.org/10.5255/UKDA-SN-7324-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2013d). *British Crime Survey, 2005-2006: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 7321, http://dx.doi.org/10.5255/UKDA-SN-7321-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2013e). *British Crime Survey, 2006-2007: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 7317, http://dx.doi.org/10.5255/UKDA-SN-7317-1

Home Office Research, Development and Statistics Directorate and BMRB Social Research (2013f). *British Crime Survey, 2007-2008: Special Licence Access, Drinking Behaviour Module* [computer file]. Colchester, Essex: UK Data Archive [distributor]. SN: 7308, http://dx.doi.org/10.5255/UKDA-SN-7308-1

Hough, M., & Mayhew, P. (1985). *The British Crime Survey: First report*. London: Home Office.

Jacques, S., & Rennison, C. M. (2013). Social distance and immediate informal responses to violent victimization. *Journal of Interpersonal Violence, 28,* 735–754.

Jennings, W. G., Higgins, G. E., Tewksbury, R., Gover, A. R., & Piquero, A. (2010). A longitudinal assessment of the victim-offender overlap. *Journal of Interpersonal Violence, 25,* 2147–2174.

Lasley, J. R. (1989). Drinking routines/lifestyles and predatory victimization: A causal analysis. *Justice Quarterly, 6*, 529–42.

Leonard, K. E. (2002). Alcohol's role in domestic violence: A contributing case or an excuse? *Acta Psychiatrica Scandinavica, 106*, 9–14.

Levin, P. F., Hewitt, J. B., & Misner, S. T. (2007). Insights of nurses about assault in hospital-based emergency departments. *Image: the Journal of Nursing Scholarship, 30*, 249–254.

MacAndrew, C., & Edgerton, R. B. (1969). *Drunken comportment: A social explanation*. New York: Aldine Publishing Company.

McMurran, M., Egan, V., Cusens, B., van den Bree, M., Austin, E., & Charlesworth, P. (2006). The alcohol-related aggression questionnaire. *Addiction Research and Theory, 14*, 323–343.

Measham, F., & Brain, K. (2005). 'Binge' drinking, British alcohol policy and the new culture of intoxication. *Crime Media Culture, 1*, 262–283.

Miers, D. (2014). Compensating deserving victims of violent crime: The Criminal Injuries Compensation Scheme 2012. *Legal Studies, 34*, 242–278.

Nicholas, S., Kershaw, C., & Walker, A. (2007). *Crime in England and Wales 2006/07*. London: Home Office.

Pease, K. (1988). *Judgements of crime seriousness: Evidence from the 1984 British Crime Survey*. London: Home Office.

Quigley, B. M., & Leonard, K. E. (2006). Alcohol expectancies and intoxicated aggression. *Aggression and Violent Behavior, 11*, 484–496.

Rossi, P. H., Simpson, J. E., & Miller, J. L. (1985). Beyond crime seriousness: Fitting the punishment to the crime. *Journal of Quantitative Criminology, 1*, 59–90.

Ruback, R.B. (1994). Advice to crime victims: Effects of crime, victim, and advisor factors. *Criminal Justice and Behavior, 21*, 423–442.

Ruback, R. B., Gupta, D., & Kohli, N. (2004), Normative standards for crime victims: Implications for research and policy. *Psychology and Developing Societies, 16*, 61–75.

Ruback, R. B., Greenberg, M. S., & Westcott, D. R. (1984). Social influence and crime-victim decision making. *Journal of Social Issues, 40*, 51–76.

Ruback, R. B., Ménard, K. S., Outlaw, M. S., & Shaffer, J. N. (1999), 'Normative advice to campus crime victims: Effects of gender age and alcohol', *Violence and Victims, 14*, 381–96.

Ruback, R. B., & Thompson, M. P. (2001). *Social and psychological consequences of violent victimization*. London, UK: Sage.

Schreck, C. J., Stewart, E. A., & Osgood, D. W. (2008). A reappraisal of the overlap of violent offenders and victims. *Criminology, 46*, 871–906.

Smith-Pittman, M. H., & McKoy, Y. D. (1999). Workplace violence in healthcare environments. *Nursing Forum, 34*, 5–13.

Stanko, E. A., & Hobdell, K. (1993). Assault on men: Masculinity and male victimization. *British Journal of Criminology, 33*, 400–415.

Stylianou, S. (2003). Measuring crime seriousness perceptions: What have we learned and what else do we want to know. *Journal of Criminal Justice, 31*, 37–56.

Sykes, G. M. & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review, 22*, 664–670.

Taylor, S. E., Wood, J. V., & Lichtman, R. R. (1983). It could be worse: Selective evaluation as a response to victimization. *Journal of Social Issues, 39*, 19–40.

Tomsen, S. (1997). A top night: Social protest, masculinity and the culture of drinking violence. *British Journal of Criminology, 37*, 90–102.

von Hentig, H. (1948). *The Criminal and his victim: Studies in the sociobiology of crime*. New York, NY: Shocken Books.

Wells, S., Graham, K., & Tremblay, P. (2007). Beliefs, attitudes, and male-to-male barroom aggression: Development of a theoretical predictive model. *Addiction Research and Theory, 15*, 575-586.

Wells, S., Neighbors, C., Tremblay, P. F., & Graham, K. (2011). Defending girlfriends, buddies and oneself: Injunctive norms and male barroom aggression. *Addictive Behaviors, 36*, 416–420.

Winlow, S., & Hall, S. (2006). *Violent night: Urban leisure and contemporary culture*. New York, NY: Berg.

Wolfgang, M. E., & Ferracuti, F. (1967). *The subculture of violence: Towards an integrated theory in criminology*. London: Tavistock Publications.

World Health Organization (2004). *Preventing violence: A guide to implementing the recommendations of the World Report on violence and health.* Geneva: World Health Organization

Young, J. (1988). Risk of crime and fear of crime: A realist critique of survey-based assumptions. In M. Maguire, & J. Ponting (eds.). *Victims of crime: A new deal?* (pp. 164–76). Milton Keynes, UK: Open University Press.

Zaykowski, H. (in press). Reconceptualizing victimization and victimization responses. *Crime and Delinquency* early view. DOI: 10.1177/0011128711398022

TABLE 1: Descriptive statistics

	N	% of sample
Crime labeling		
Not a crime	3,409	37.60
A crime	5,657	62.40
Drinking in or around a licensed premises		
No	7,050	77.63
Yes	2,031	22.37
Sex		
Female	3,793	41.73
Male	5,296	58.27
Age	9,087	Mean 34.06, SD 13.59
Ethnicity		
Non-white	610	6.72
White	8,469	93.28
Marital status		
Not single	3,925	43.19
Single	5,163	56.81
Qualifications		
No qualifications	1,690	19.41
Second level	4,486	51.51
Third level	2,533	29.08
Frequency of visiting licensed premises		
None	2,737	30.12
Less than once a week	2,749	30.25
Once to twice a week	2,028	22.32
About 3 times a week	777	8.55
Almost every day	796	8.76
Alcohol consumption		
Less than monthly	522	11.12
Less than weekly	1,016	21.64
Once or twice a week	1,770	37.71
More than twice a week	1,386	29.53
Violent victimizations reported		
One	6,403	70.45

More than one	2,686	29.55
Ever the defendant in court		
No	1,812	80.28
Yes	445	19.72
Injury		
No	3,042	33.52
Yes	6,034	66.48
Weapon used		
No	7,326	84.61
Yes	1,333	15.39
Emotional impact		
No emotional effect	1,082	12.25
Just a little	2,876	32.56
Quite a bit	2,409	27.28
Very much	2,465	27.91
Relative distance to offender		
Family member	1,569	27.40
Friend or acquaintance	1,294	22.60
Other	2,863	50.00
Victim initiation of incident		
No	3,351	93.87
Yes	219	6.13
Attribution of offence – target		
No	8,107	89.20
Yes	982	10.80
Offender intoxication		
No	3,521	44.27
Yes	4,433	55.73
Year		
2002/3	894	9.84
2003/4	964	10.61
2004/5	1,024	11.27
2005/6	1,085	11.94
2006/7	1,145	12.60
2007/8	1,035	11.39
2008/9	1,082	11.90

2009/10	892	9.81
2010/11	968	10.65

SD: Standard deviation

TABLE 2. Results of logistic regression analysis

	Model 1		Model 2		Model 3		Model 4	
	OR	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**
Alcohol setting	0.65***	0.59–0.72	0.70***	0.63–0.78	0.69***	0.60–0.79	0.47***	0.34–0.67
Male			0.94	0.86–1.03	0.89	0.78–1.01	0.98	0.72–1.34
Age			1.01***	1.00–1.01	1.03***	1.02–1.04	1.04***	1.02–1.06
White			0.66***	0.55–0.80	0.86	0.67–1.11	0.98	0.56–1.70
Single			1.08	0.96–1.21	1.27*	1.04–1.54	1.11	0.74–1.65
Qualifications			0.96	0.90–1.03	0.96	0.87–1.06	1.04	0.84–1.28
Frequency of visiting licensed premises					0.89***	0.84–0.95	0.90	0.80–1.02
Frequency of alcohol consumption					0.96	0.89–1.04	0.94	0.80–1.11
Number of violent victimizations					0.74***	0.65–0.85	0.96	0.73–1.26
Weapon							2.06***	1.33–3.13
Injury							1.87***	1.40–2.48
Emotional harm							1.93***	1.66–2.24
Relational distance							1.61***	1.33–1.95
Victim initiated incident							0.52*	0.30–0.92
Target attribution							2.13**	1.23–3.68
Offender intoxicated							1.27	0.94–1.71
Observations	9,061		8,685		4,550		1,163	
Pseudo R^2	0.01		0.01		0.03		0.15	

OR: Odds ratio; 95% CI: 95% Confidence Intervals; *p<0.05, **p<0.01, ***p<0.001