Abstract

When investigating serious violence, studies tend to look primarily at offenders and their background. This study investigates the influence of offenders' and victims' criminal history and immediate situational factors on the likelihood that violent events will end lethally. For this purpose, we compare lethal with non-lethal events, and combine Dutch criminal records with data from court files of those involved in lethal (i.e., homicide, n = 126) versus non-lethal events (i.e., attempted homicide, n = 141). Results reveal that both criminal history and immediate situational factors clearly matter for the outcome of violent events; however, immediate situational factors have the strongest effect on violent outcomes.

Introduction[1]

This study seeks to explain why certain violent events end lethally while others do not. Is it on account of certain personal characteristics of those involved in these events – in particular, do offenders and/or victims have a criminal propensity, possibly reflected in their criminal history records? Or does it relate to certain immediate situational factors occurring during these incidents, such as weapon use, alcohol use, the presence of third parties or actors' behavior? Or does a combination of both types of factors – i.e., criminal history and immediate situational factors – play a key role in differentiating lethal from non-lethal violent events (cf. Mischel's work (1990) in regard to the person-situation debate)? Although these questions are important for the understanding of serious violence in general, so far criminologists have not often addressed these questions simultaneously. This study has been designed to start filling this gap by focusing on the relationship between offenders' and victims' criminal history, immediate situational factors (covering event characteristics and actors' behavior), and lethal versus non-lethal outcomes of violent events.

At least two criminological theories explain why such a relationship could exist. First, in explaining the occurrences of lethal events, some scholars argue – in line with the *General Theory of Crime*

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(Gottfredson & Hirschi, 1990) – that some individuals have a higher propensity to be involved in a homicide than others, because of differences in personal characteristics, including one's level of self-control. According to this theory, a low level of self-control is a relatively enduring characteristic that is linked to risky behavior, including criminal behavior. Thus, people with low self-control have a higher propensity to commit crimes in general (also referred as criminal propensity), and this also holds for homicide (Gottfredson & Hirschi, 1990). In addition, people with low self-control are more prone to falling victim to serious violence, including homicide (Gottfredson & Hirschi, 1990; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005; Schreck, 1999). Several empirical studies have confirmed that certain personal characteristics (e.g., criminal propensity, impulsivity, and self-control), which are reflected above all in a person's (violent) criminal history, increase the likelihood of not only committing lethal violence (e.g., Farrington, Loeber, & Berg, 2012; Loeber et al., 2005b; Soothill, Francis, Ackerley, & Fligelstone, 2002), but also of becoming a victim of lethal events (e.g., Dirkzwager, Nieuwbeerta, & Blokland, 2012; Dobrin, 2001; Ezell & Tanner-Smith, 2009).

Other scholars stress the significance of immediate situational factors, which often include short-term risk factors that are present in the immediate context in which incidents occur (e.g., Farrington, 2005; Ganpat, Van der Leun, & Nieuwbeerta, 2013a, 2013b). In light of this perspective, situational factors – including the setting in which events takes place (e.g., time, location, alcohol use, the presence/absence of third parties) and the dynamic interactions during violent incidents (i.e., actors' behavior, and more specifically the interaction between offenders and victims and, if present, third parties) are crucial because they can contribute to an escalation towards a lethal outcome (see also Cohen & Felson's *routine activity theory* [1979]; Ganpat et al., 2013a , 2013b; Weaver et al., 2004; and see *Luckenbill's situated transaction theory* [1977]; Felson & Steadman; 1983; Wolfgang, 1958).

So far, empirical research not only finds strong empirical evidence for pronounced differences in criminal history and immediate situational factors between lethal and non-lethal violent events, but also

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points out that immediate situational factors can play a more important role than one's criminal history in explaining lethal outcomes (DiCataldo & Everett, 2008). In sum, *both* a person's criminal history and immediate situational factors are found to play a significant role in the escalation of violent events.

However, most criminological theories and empirical studies treat offenders' and victims' personal characteristics – including criminal history – and situational factors separately. The few studies addressing both types of risk factors in lethal events typically did not provide a comparison with non-lethal violent events (e.g., Wolfgang, 1958). Hence, very few studies *combined* the study of a person's criminal history and situational factors in *lethal versus non-lethal events*. Studies that have been published were merely offender-focused – thus ignoring victims and third parties – and did not use multivariate analyses to determine the influence of the two factors on the lethality of violent events (see also, DiCataldo & Everett, 2008; Dobash, Dobash, Cavanagh, & Medina-Ariza, 2007; Felson & Steadman, 1983). Consequently, it is unclear if and how the lethality of violent events is influenced by the two types of risk factors.

To fill this gap, we focus on the following research questions: (1) To what extent do differences exist in the criminal history of offenders and victims and in immediate situational factors between lethal and non-lethal events? And (2) To what extent are offenders' and victims' criminal history as well as immediate situational factors related to the likelihood of a lethal outcome of violent events? To answer these questions, we not only combine criminal record data with data from court files but we also compare two unique Dutch samples of serious violent events within the same study: (a) a sample of lethal events involving murder or manslaughter ($n = 126$), and (b) a sample of non-lethal events involving attempted murder or attempted manslaughter ($n = 141$). The use of these samples is unique, as attempted and completed homicides are commonly not compared. An argument frequently stated in favor of not comparing attempted with completed homicide is that the difference in outcome (dead or alive) is based on chance factors only. However, according to some scholars, other important factors may play a crucial

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and systematic role in affecting whether the outcome is lethal or non-lethal, such as offenders' (criminal history) characteristics including the age of the first offense (e.g., Bjørkly & Waage, 2005; Smit, De Jong, & Bijleveld, 2012). By comparing cases of attempted versus completed homicide, this empirical study yields more insight into this matter. In doing so, this study considers offenders' and victims' criminal history to be an important manifestation of a person's individual characteristics, including a person's criminal propensity.

The rationale for choosing the selected number of situational variables has a theoretical background which was especially inspired by the seminal work of Luckenbill (1977) and Wolfgang (1958) on lethal violence. Given that both Luckenbill and Wolfgang pointed out that (a) the interaction between offenders and victims (and third parties) are crucial for a lethal outcome and that (b) the difference between an offender and victim is not always clear beforehand, we developed a scoring instrument where most included variables (e.g., weapon use) were identical for the offender and the victim, rather than collecting the specific information for the offender or victim only. As these theoretical assumptions on situational interaction have not been tested thoroughly in the empirical literature on serious violence – e.g., because of connotation regarding victim blaming (Muftic´, Bouffard, & Bouffard, 2007) – this study focuses on a selected number of situational variables in an attempt to contribute to the gap in the literature. Thus, by focusing on both types of factors (personal and situational) and comparing lethal versus non-lethal events, the aim of our research is to broaden current knowledge of why some events end lethally while others do not.

Although most criminological theories do not provide an elaborate explanation for why some violent events end lethally and others do not, there are several empirical and theoretical indications that offenders' and victims' criminal history and immediate situational factors are important for the outcomes of events, as discussed further below.

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<center>**Previous Studies**</center>

Criminal History Of Perpetrators Of Serious (Lethal) Violence

A number of studies have found evidence that a person's criminal history is significantly associated with lethally as well as non-lethally violent offending. Retrospective studies have repeatedly shown that most lethally and non-lethally violent offenders had a criminal history (Dobash et al., 2007; Ganpat et al., 2014; Soothill et al., 2002), and many perpetrators of both lethal and non-lethal violence had a violent criminal history (Dobash et al., 2007). Important differences in criminal history between the two groups have been revealed. For instance, non-lethally violent offenders are more likely to have a prior criminal record (Dobash et al., 2007; Ganpat, Liem, Van der Leun, & Nieuwbeerta, 2014) and to have committed a higher number of prior crimes compared with lethally violent offenders (Dicaldo & Everett, 2008; Ganpat et al., 2014). With regard to research on violent history, mixed results were found: some studies found that a history of violence was more common among lethally violent offenders (Soothill et al., 2002), whereas others found a higher prevalence among non-lethally violent offenders (Dobash et al., 2007; Ganpat et al., 2014; Smit, Bijleveld, Brouwers, Loeber, & Nieuwbeerta, 2003).

In addition, particularly a higher number of prior crimes and having a prior violent criminal record were found to be associated with an increased likelihood of committing lethal violence (e.g., Farrington et al., 2012; Loeber et al., 2005b; Soothill et al., 2002). By contrast, a recent study found that having a prior violent criminal record decreased the likelihood of lethal offending (Ganpat et al., 2014).

A possible explanation for these differences in results may be related to the fact that these studies used different sample of violent offenders. For instance, Dobash et al. (2007) focused on one subtype of violence and compared offenders of lethal intimate partner violence with offenders of nonlethal intimate partner violence; Soothill et al. (2002) focused on murderers of all subtypes and made comparisons with other violent offenders; and in contrast to these studies, Ganpat et al. (2014) compared offenders of completed homicide with offenders of attempted homicide.

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Criminal History Of Victims Of Serious (Lethal) Violence

A person's criminal history is found to be strongly related to both lethally and non-lethally violent victimization, which is strongly supported by retrospective studies showing that both victims of lethal and non-lethal violence tend to have a criminal history (e.g., Daday et al., 2005; Dobrin, 2001; Klassen & Vassar, 2002; Milwaukee Homicide Review Commission, 2012; Pizarro, Zgoba, & Jennings, 2011; Wolfgang, 1958), and that a considerable part of victims who have died in violent offenses had a violent history themselves (e.g., Broidy, Daday, Crandall, Sklar, & Jost, 2006; Jennings, Piquero & Reingle, 2012; Wolfgang, 1958).

Prospective studies add to this that a higher number of prior crimes and having a prior violent record increases the likelihood for both lethally and non-lethally violent victimization (e.g., Dobrin, 2001; Ezell & Tanner-Smith, 2009; Reep & Oudhof, 2009; Sampson & Lauritsen, 1990; Wittebrood & Nieuwbeerta, 1999).

Event Characteristics

Event characteristics are also associated with lethal outcomes. First, research has yielded evidence that the likelihood of a lethal outcome increases if incidents occur during the morning and in private settings (Weaver et al., 2004). Second, victims of lethal rather than non-lethal events are more likely to be under the influence of alcohol (e.g., Felson & Steadman, 1983), and a significant proportion of both lethally and non-lethally violent offenders were under the influence of alcohol (see a review by Darke [2010]). However, research is inconclusive about whether significant differences exist between both offender groups in terms of substance use (e.g., DiCataldo & Everett, 2008; Dobash et al., 2007; Felson & Steadman, 1983; Ganpat et al., 2013a, 2013b). Third, whether and how many other persons (besides victims and offenders) are present during the event – i.e., third parties – appears to influence the severity

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of outcomes (e.g., Decker, 1995; Felson & Steadman, 1983; Ganpat et al., 2013a, 2013b; Latane & Darley, 1968; Luckenbill, 1977; Phillips & Cooney, 2005). Whether the presence of others has an escalating or de-escalating effect remains unclear (e.g., Apel, Dugan, & Powers, 2013; Decker, 1995; Ganpat et al., 2013a, 2013b; Latane & Darley, 1968; Luckenbill 1977; Phillips & Cooney, 2005). One possible explanation for differing results is that many studies did not explicitly compare lethal events with non-lethal violent events.

Actors' Behavior

A lethal outcome of violent events depends – at least partially – on actors' behavior, and more specifically on the interaction between offenders and victims and, if present, third parties (e.g., Decker, 1995; Felson & Steadman, 1983; Ganpat et al., 2013a, 2013b; Luckenbill, 1977; Wolfgang, 1958). In a classic study, Wolfgang (1958) showed that victims can contribute to their own death by being *the first* to show a firearm or knife, or the first to use physical violence, also conceptualized as victim precipitation. Also, the type of weapon used by offenders – in particular firearms – substantially increases the lethality of violent outcomes (e.g., Apel et al., 2013; Felson & Messner, 1996; Ganpat et al., 2013a, 2013b; Kleck & McElrath, 1991; Weaver et al., 2004). Another important factor is how third parties behave during incidents – i.e., inactivity, settlement or partisanship (taking sides) (e.g., Decker, 1995; Ganpat et al., 2013a, 2013b; Luckenbill, 1977; Phillips & Cooney, 2005). Although research is inconclusive about the association between settlement and the severity of conflicts (see e.g., Felson & Steadman, 1983; Ganpat et al., 2013a, 2013b, Phillips & Cooney, 2005), partisanship does increase the severity of conflicts (Phillips & Cooney, 2005).

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Towards an Integrated Theoretical Framework

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According to Miethe and Meier (1994), "it is truism that crime requires both offenders and victims (or targets) and situations or social contexts that unites them" (Miethe & Meier, 1994, p. 3). Still, to reduce complexity, criminological studies tend to focus either on offenders, victims or the immediate situation, when addressing (lethal) crime (Meier, Kennedy, & Sacco, 2001). However, several theories provide indications which suggest that victims' and offenders' criminal history and immediate situational factors play a significant role in the escalation towards a lethal outcome, especially routine activity theory (RAT) (Cohen & Felson, 1979), situated transaction theory (Luckenbill, 1977) and self-control theory (Gottfredson & Hirschi, 1990). Below, these separate theoretical insights will be blended into an integrated model to explain the lethality of violent outcomes (Figure 1).

To start, for a more detailed understanding of the role of immediate situational factors in the escalation towards violence which may end lethally, this study combines and integrates notions of routine activity and situated transaction theory. In particular, this study employs RAT as a basic framework to get a grip on event characteristics, including time, location, alcohol use, and the presence or absence of third parties. Based on RAT's assumption that crimes occur when three necessary elements converge in time and space – that is: (1) a motivated offenders, (2) suitable victims, and (3) absence of capable guardians (or in our case third parties) – we expect that for (lethal) violence to occur, not only the setting matters (see 'settings', Figure 1), but also that it is necessary that victims, offenders and (incapable) third parties come together in such settings (illustrated by a triangle, see also 'situational factors', Figure 1). Further, as RAT overlooks the importance of the dynamic interaction between offenders and victims in explaining crime (Meier et al., 2001), we include insights from the situated transaction theory. How people behave or respond to each other is also crucial (represented by circles, Figure 1), and it is not always clear in advance who will end up as offender or victim. Based on notions of Felson (1993) – who was inspired by the social interactionist approach – and Luckenbill, we assume that the motivation of offenders is not always constant but rather shaped by the interaction

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between offenders and victims (Felson, 1993). Further, following Felson's line of reasoning (1993), in this study any aggressive behavior is considered as goal-oriented. For instance, offenders may respond violently to perceived wrongdoing or insults (Felson, 1993; Luckenbill, 1977). By integrating the two situational frameworks, it may be expected that – depending on how actors behave during the event – some victims may be considered a more suitable target. For instance, victims under the influence of alcohol may be more likely to die during the event, as they may be more prone to say or do something that provokes or insults offenders, and may be less able to defend themselves when attacked (Wolfgang, 1958). Additionally, whether third parties are present during the event may also matter for the outcome of violence: they could serve as potential guardians deterring the offender from killing the victim. As such, it may be expected that their presence and/or behavior can affect whether violent events end lethally or non-lethally. Further, in this study criminal history is used as an *indicator* for one's criminal propensity. Here, in elaborating the role of individuals' criminal propensity, we depart from insights from self-control theory stating that those with low self-control have the tendency to be impulsive, easily frustrated, to solve conflicts physically rather than verbally, and are also more prone to place themselves in conflict situations and react violently in such conflict situations. Its relevant theoretical proposition is that people with low self-control not only have a higher propensity to commit crimes in general (also referred to as criminal propensity), but that they are also more likely to commit lethal violence than others (Gottfredson & Hirschi, 1990). Second, those with low self-control are not only more vulnerable to be criminally victimized, but, according to some scholars, are also more vulnerable to fall victim to serious violence, including lethal violence (Gottfredson & Hirschi, 1990; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005; Schreck, 1999). Thus, according to the self-control theory, low self-control explains why some people have a higher likelihood of criminal behavior and victimization than others (Gottfredson & Hirschi, 1990; Schreck, 1999). Accordingly, based on this theoretical background, we consider offenders' and victims' criminal history to be an important

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manifestation of a person's individual characteristics, including a person's criminal propensity. In general, it may be expected that offenders and victims of lethal violence are more likely to have a more severe criminal history than offenders of non-lethal violence. A person's criminal propensity in turn can influence the likelihood of becoming involved in risky conflict situations, including serious (lethal) events (Figure 1), and can affect how a person behaves or reacts in these risky situations (see heading 'a person's characteristics', Figure 1; cf. the psychology of criminal conduct model of Andrews and Bonta (2003)). This is seen as relevant for all persons involved in violent encounters, be it as victims or as offenders. Presumably, a person's criminal propensity in interaction with immediate situational factors can explain the lethality of violent events (Mischel, 1990).

[Figure 1 about here]

Hypotheses

Based on previous findings and the theoretical considerations above we derived the following hypotheses. Concerning the influence of *criminal history*, hypothesis 1a states that the higher the number of crimes in an offender's criminal history, the higher the likelihood of a lethal outcome; hypothesis 1b postulates that if offenders have a violent criminal history, the likelihood of a lethal outcome increases. According to hypothesis 1c, the higher the number of crimes in a victim's criminal history, the higher the likelihood of a lethal outcome; and hypothesis 1d states that if victims have a violent criminal history, the likelihood of a lethal outcome increases.

Furthermore, concerning *event characteristics*, hypothesis 2a presumes that if events take place at home or in the morning, the likelihood of a lethal outcome increases; hypothesis 2b is that alcohol use by victims increases the likelihood of a lethal outcome; hypothesis 2c states that alcohol use by offenders increases the likelihood of a lethal outcome; hypothesis 2d postulates that the presence of third parties decreases the likelihood of a lethal outcome; and according to hypothesis 2e, the greater the number of third parties present, the lower the likelihood of a lethal outcome.

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Moreover, considering *actors' behavior*, according to hypothesis 3a victim precipitation increases the likelihood of a lethal outcome, and hypothesis 3b states that displaying or using a firearm by offender increases the likelihood of a lethal outcome. According to hypothesis 3c, attempts to settle the conflict by present third parties decreases the likelihood of a lethal outcome; and hypothesis 3d presumes that inactivity or partisanship by present third parties increases the likelihood of a lethal outcome.

Data And Method

In this study we use data from Dutch court files and criminal records which were selected using five criteria, all of which had to be met to be included in this study: (a) the case was registered in the court district of The Hague or Rotterdam (i.e., two of the most important Dutch cities where the vast majority of homicides occur [Ganpat & Liem, 2012]), (b) the offender had been convicted for murder or manslaughter (period 2000-2009)[2] or attempted murder or manslaughter (period 2005-2009), (c) the event involved a single offender and a single victim, (d) victim and offender were at least 12 years of age[3] at the time of the event, and (e) the court file was present[4] at the court districts at the time of the data collection.

The sample used in this study consists only of Dutch violent crimes that require a *lethal intention*; that is, of cases of violence that are categorized as attempted and completed homicide. As the focus is on the *outcome* of violence – that is, lethal or non-lethal –, no distinction is made between murder and manslaughter. The Dutch Criminal Code determines that both murder and manslaughter require an *intent to kill* (Articles 287-291 of the Dutch Criminal Code). A legal difference between murder and manslaughter is that murder requires *premeditation*. Attempted manslaughter or attempted murder is defined as attempting to intentionally kill someone (with or without premeditation) and requires the beginning of the execution of the crime (Article 45 in combination with Articles 287-291). Thus, both are serious crimes requiring an intent to kill, with death as a possible but not necessary outcome. So,

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the legal definition of completed and attempted homicide suggests that the two types of crimes are quite similar, with the one prominent difference that in one case it succeeds, while – for some reason – in the other case it did not.

Another reason to use data on violent offenses that require an intent to kill derives from the ongoing scholarly debate concerning the relationship between weapons and lethal violence and the role of the offender's intention. In brief, scholars disagree on whether a lethal intention contributes to a real or to a spurious relationship between guns and violent outcomes. The main point of contention is whether 'guns kill people' or whether 'people kill people'(see also Apel et al., 2013; Kleck & McElrath, 1991; Weaver et al., 2004; Wells & Horney, 2002; Wolfgang, 1958; Zimring, 1968). As the debate is still open, this study has only made use of a sample of serious violent events where *all* offenders have an intent to kill rather than to injure, thereby excluding cases such as (aggravated) assault that ended lethally or not. By doing so, it is reasonable to assume that the offender's intention does not strongly intervene in the relationship between guns and violent outcomes.

Data

We compiled a sample of 126 lethal cases (i.e., murder or manslaughter) and 141 non-lethal violent cases (i.e., attempted manslaughter or attempted murder) as will be explained below. For the purpose of this study, the unique combined dataset of these 267 cases covering both situational variables and criminal history variables was constructed as follows. First, to retrieve information on situational factors, data from the *Scoring Instrument (attempted) Homicide (SIH)* study were used, collected by the Institute for Criminal Law & Criminology of Leiden University in the Netherlands (Ganpat, 2012; Ganpat et al., 2013a; see below, under heading 'event characteristics' and 'actors' behavior' for a specification of the relevant variables and how they were measured). This dataset contains information on a selected sample of 126 lethal and 141 non-lethal cases, all of which meet the above-mentioned criteria. The study was based on an in-depth examination of court files in which detailed information was collected about almost

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400 situational variables. All data were systematically gathered by eight specifically trained research assistants using a scoring instrument containing detailed coding instructions.[5] In pairs, a total of 22 files were randomly selected and double scored. The interrater reliability rate was .78 (Cohen's Kappa), indicating a substantial agreement between coders.

Next, criminal records of all victims and perpetrators of these 267 violent events were requested and merged into the SIH-dataset. When we refer to criminal records, we mean court appearances. In a court appearance where more than one offense was committed, the most severe offense was analyzed. For perpetrators of both groups as well as for victims of lethal events, criminal record data from the Criminal Record Register were provided by the Research and Documentation Centre (WODC) of the Dutch Ministry of Security and Justice. This register comprises all officially registered criminal records of those who have been prosecuted in the Netherlands from the age of twelve, irrespective of whether or not they were convicted. For victims involved in *non-lethal events,* criminal record data from the Central Judicial Documentation Department (JDS)[6] of the Dutch Ministry of Security and Justice were used. Eventually, criminal record data of a total of 265 offenders were available (i.e., 126 lethally violent offenders and 139 non-lethally violent offenders). For victims, criminal record data of a total of 261 victims were available (i.e., 126 lethal and 135 non-lethal victims).

Utilizing this unique dataset, we were able to study the role of criminal history and situational factors in a total sample of 267 serious violent events involving one offender and one victim.[7]

Variables

Our dichotomous dependent variable indicates a lethal outcome (1) or a non-lethal outcome of the violent event (0).

Criminal history variables. We use the term 'criminal history' to refer to a person having at least one registration in the Criminal Record Register or JDS prior to the index offense, regardless of whether or

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not there was a conviction because some cases were pending. Not included were cases concerning acquittals, technical dismissals or misdemeanors. Criminal history variables were *existence of a prior criminal record of offenders/victims* (dichotomous), *total number of prior criminal records of offenders/victims* (continuous),[8] *existence of prior violent record of offenders/victims* (dichotomous) *and total number of prior violent records of offenders/victims* (continuous).

Event characteristics. Event characteristics measured were (1) *event location* (covered by several dummy variables including home regardless of who lived in the house (reference category), street or in a parking lot, cafe/bar/restaurant, and other), (2) *time of the event* (comprising the dummy variables morning (06:00-12:00h; reference category), afternoon (12:00-18:00h), evening (18:00-24:00h), and night (00:00-06:00h), (3) *alcohol use by victim,* regardless of the amount consumed,[9] (4) *alcohol use by offender,* regardless of the amount consumed*,* (5) *presence of third parties* (dichotomous), and (6) *number of third parties* (continuous; if no third party was present, the number of third parties was coded 0). Based on Phillips and Cooney's definition (2005), 'third parties' refers to others than the offender and victim who were present and witnessed the event.

Actors' behavior. Four behavioral variables were included: (1) *victim precipitation[10]* (following Wolfgang's definition (1958)), which means that the victim was the first in the event to show a firearm or a sharp weapon, or was the first to use physical violence), (2) *displaying or using a firearm by offender,* (3) *offender's modus operandi* causing the most severe injury (consisting of several dichotomous variables including strangulation, firearm, sharp instrument, hitting/kicking/pushing with or without an object and other)*,* (4) *behavior of present third parties* (covered by three dummy variables: partisanship [at least one took sides], settlement [at least one attempted to settle, but none took sides], inactivity [no one intervened]; reference category: absence of third parties).

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Background characteristics. Background characteristics considered were age (continuous), sex, country of birth (1 = *born in the Netherlands*, 0 = *born elsewhere*)[11], victim-offender relationship (1 = *non-stranger*, 0 = *stranger*), and subtypes of conflicts (covering three dummy variables: (a) related to arguments/altercations (i.e., between friends, acquaintances, or strangers, excluding those involved in an intimate/family relationship, rivals in love, or criminal milieu; reference category), (b) related to domestic conflicts between those involved in an intimate/family relationship/rivals in love, or (c) felony-related or other).

Results

Descriptive Analyses

Offenders' and victims' criminal history

Descriptive analyses were carried out to answer our first research question, to what extent differences exist in the criminal history of offenders and victims and immediate situational factors between lethal and non-lethal events (Table 1 and 2).

Table 1 shows that while no differences were found in offenders' criminal history, significant differences were found concerning victims' criminal history. Victims of lethal events were less likely to havea prior criminal record and to have a prior violent record compared with victims of non-lethal violence. Victims of lethal events were also less likely to have a higher number of prior records of criminal offending, and to have a higher number of prior violent records than victims who survived (Table 1). Moreover, in non-lethal events it was more likely that both victims and offenders had a prior criminal record and that both had a prior violent record, compared with lethal events.

[Table 1 about here]

Event characteristics and actors' behavior

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Table 2 shows the results concerning event characteristics and actors' behavior. For event characteristics, we found that lethal events were less likely to have taken place on the street or in a parking lot, compared to non-lethal events. Moreover, in lethal events it was more likely that third parties were absent or that a lower number of third parties were present than in non-lethal events. No significant relationship was found between the time of the event or alcohol use by victims/offenders and violent outcomes.

More pronounced differences were found regarding actors' behavior (Table 2). Perpetrators of lethal violence were more likely to have displayed or used a firearm and to have inflicted the most severe injury with a firearm, but were less likely to commit violence by physical force such as hitting, kicking or pushing than perpetrators of non-lethal events. Furthermore, considering victims' behavior, those who were killed were more likely to have precipitated during the incidents than victims who were not killed. Finally, present third parties were more likely to have remained inactive in lethal events compared to non-lethal events.

Finally, several background characteristics were also compared, using descriptive statistics. As Table 3 shows, victims of lethal rather than non-lethal events were more likely to be older and female. Perpetrators of lethal rather than non-lethal events were more likely to be older and born outside the Netherlands. Compared to non-lethal events, in lethal events it was more likely that victims and offenders knew each other and conflicts were domestic related, but less likely related to arguments/altercations.

In sum, while no significant difference was found in offender's criminal history, for victims a relationship was found between criminal history and outcomes of violent events: victims who died often had a less severe criminal history than victims who survived the events. Also, several situational factors were found to be associated with violent outcomes: taken as a whole, not only did lethal events differ from non-lethal events in where the event took place and whether and how many third parties were present, but also in actors' behavior.

[Table 2 about here]

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[Table 3 about here]

Multivariate Analyses

Multivariate logistic regression analyses[12] were carried out to examine the effects of criminal history variables and situational variables on violent outcomes, controlling for several background variables. These results are shown in Table 4, presented in six models.[13] In each model our control variables are included (age, sex, country of birth, type of relationship and subtypes of conflicts). Model I only includes background characteristics. The next two models cover criminal history variables without situational variables (Model II includes offenders' criminal history; Model III includes victims' criminal history), while the following three models combine criminal history variables with situational variables (Model IV adds event characteristic variables, whereas Model V covers behavioral variables). Model VI takes all the variables together to examine the combined influence of these variables on violent outcomes.

Influence of criminal history

First, all models – except Model I and III – were considered to test our hypotheses concerning *offenders' criminal history*: (i) hypothesis 1a: The higher the number of crimes in an offender's criminal history, the higher the likelihood of a lethal outcome, and (ii) hypothesis 1b: If offenders have a violent criminal history, the likelihood of a lethal outcome increases. All models show that the total number of prior crimes in offenders' criminal history did not have a significant effect on the likelihood of a lethal outcome of violent events. Thus, no support was found for hypothesis 1a. Secondly, if offenders had a violent criminal history, the likelihood of a lethal outcome decreased, offering no support for hypothesis 1b (Model V and VI).

Then, regarding *victims' criminal history*, all models except for Model I and II were considered to test the following hypotheses: (i) hypothesis 1c: The higher the number of crimes in a victim's criminal history, the higher the likelihood of a lethal outcome, and (ii) hypothesis 1d: If victims have a violent

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criminal history, the likelihood of a lethal outcome increases. These models reveal that the total number of prior crimes in victims' criminal history did not influence violent outcomes, offering no support for hypothesis 1c (Model III to VI). Further, as reported in Model V and VI, if victims had a prior violent record, the likelihood of a lethal outcome decreased, providing no support for hypothesis 1d.

Influence of event characteristics

As to situational factors, Model IV and VI were considered to test five hypotheses concerning *event characteristics*: (i) hypothesis 2a: If events take place at home or in the morning, the likelihood of a lethal outcome increases; (ii) hypothesis 2b: Alcohol use by victims increases the likelihood of a lethal outcome; (iii) hypothesis 2c: Alcohol use by offenders increases the likelihood of a lethal outcome; (iv) hypothesis 2d: The presence of third parties decreases the likelihood of a lethal outcome; and (v) hypothesis 2e: The greater the number of third parties present, the lower the likelihood of a lethal outcome. Both Model IV and VI show that that if events took place at home or in the morning, the likelihood of a lethal outcome neither increased nor decreased, providing no support for hypothesis 2a. Further, the odds of a lethal versus non-lethal outcome increased by a factor of 5.261 if victims were under the influence of alcohol compared with victims who were not, supporting hypothesis 2b (Model VI). By contrast, Models IV and VI show that alcohol use by offenders had a negative effect on the lethality of violence. In other words, hypothesis 2c was not supported. In addition, as can be seen in Model IV, the presence of third parties was found to decrease the likelihood of a lethal outcome, supporting hypothesis 2d. However, both Model IV and VI show that the greater the number of third parties present, the *higher* the likelihood of a lethal outcome, providing no support for hypothesis 2e.

Influence of actors' behavior

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Lastly, Model V and VI were considered to test the hypotheses concerning *actors' behavior*: (i) hypothesis 3a: Victim precipitation increases the likelihood of a lethal outcome; (ii) hypothesis 3b: Displaying or using a firearm by offenders increases the likelihood of a lethal outcome; (iii) hypothesis 3c: Attempts to settle the conflict by present third parties decreases the likelihood of a lethal outcome; and (iv) hypothesis 3d: Inactivity or partisanship by present third parties increases the likelihood of a lethal outcome. The odds of a lethal versus non-lethal outcome increased by a factor of 10.657 if victims precipitated during the event compared with victims who did not precipitate (Model VI). Thus, support was found for hypothesis 3a. Furthermore, the odds of a lethal versus non-lethal outcome increased by a factor of 113.130[14] if offenders displayed or used a firearm, providing support for hypothesis 3b (Model VI). Finally, testing the influence of third parties' behavior showed that attempts to settle the conflict, inactivity and partisanship by present third parties decreased the likelihood of a lethal outcome compared with events where no third party was present, which was in line with hypothesis 3c and in contrast with hypothesis 3d (Model V and VI)[15].

In sum, criminal history backgrounds in combination with immediate situational factors clearly matter for the lethality of violent outcomes. Regarding criminal history variables, when actors' behavior was taken into account or when all other factors were considered in one model, the likelihood of a lethal outcome increased if neither offenders nor victims had a prior violent record. Concerning event characteristics, the likelihood of a lethal outcome increased if victims were under the influence of alcohol, offenders were not under the influence of alcohol, no third parties were present, and a higher number of third parties were present. Finally, behavioral characteristics found to increase the lethality of violent outcomes were victim precipitation and displaying or using a firearm by offenders, while settlement, partisanship and inactivity by third parties were found to decrease the likelihood of a lethal outcome.

Overall, Model I (consisting only of background characteristics) showed an explanatory variance of 27%. The explanatory power increased slightly when offenders' and victims' criminal history variables

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were included (Nagelkerke R^2 = .29 or .32; Model II and III). The explanatory variance increased to 53% or higher when including situational factors (Model IV to VI). Model IV shows that the presence of third parties had the strongest effect when compared with other variables. Model V and VI reveal that displaying or showing a firearm by offenders had the strongest effect in comparison to the other variables. Overall, Model VI – containing both criminal history variables and situational factors – had the strongest explanatory power as evidenced by a Nagelkerke R^2 of .694. All in all, Table 4 demonstrates that the predictive capacity of the models was best if situational characteristics were included, which also had the strongest effect on the likelihood of a lethal outcome compared with victims' and offenders' criminal history.

[Table 4 about here]

Conclusion And Discussion

Based on Dutch criminal records and data from court files, this study examined the relationship between offenders' and victims' criminal history, immediate situational factors and lethal versus non-lethal outcomes of violent events. More concretely, this study has uniquely extended the literature on violence by (a) explicitly comparing violent events that ended lethally with those that ended non-lethally in terms of offenders' and victims' personal characteristics and immediate situational factors, (b) comparing cases of attempted homicide with cases of completed homicide, (c) using a more dynamic approach including the role of victims and third parties in serious violent events rather than focusing on offenders only, and (d) actually combining offenders' and victims' personal characteristics and immediate situational factors to study their role in serious violent events. As a result, this study has made several important contributions. First, we have shown that substantial differences exist between lethal and non-lethal events in victims' criminal history and immediate situational factors. However, in contrast to earlier studies (e.g., Ganpat et al., 2014), no significant differences in offenders' criminal history were found. This discrepancy in results may be related to the fact that the present study, which was limited to one-on-

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one cases, was based on a more selective sample than the one used in the earlier study (Ganpat et al., 2014). Concerning victims' criminal history, we found that those who died had a less severe criminal history than those who survived the events. Theoretically, these findings suggest that – when considering a person's criminal background as an indirect *indicator* for one's criminal propensity – perpetrators of lethal and non-lethal violence in our sample do not differ in criminal propensity, whereas victims of non-lethal violence have a *higher* criminal propensity/vulnerability than victims of lethal violence, providing little support for what was expected from self-control theory (Gottfredson & Hirschi, 1990).

Furthermore, one of the most important findings is that offenders' and victims' criminal history in combination with immediate situational factors are key factors affecting the lethality of violent events; however, situational factors exert a stronger influence on violent outcomes than criminal history factors. More specifically, while none of the hypotheses concerning the influence of criminal history was supported by the data, we did find – contrary to our expectations – that the likelihood of a lethal outcome increases if offenders and victims do not have any prior violent record. Put differently, persons who do not have a propensity for violence have a higher likelihood to be involved in a lethal event, be it as victims or as offenders, which is in contrast to earlier studies in this field except for Ganpat et al. (2014). This discrepancy in results may relate to the fact that earlier studies did not explicitly differentiate between violent events that end lethally and those that do not. One interpretation of this unexpected finding is that – as stated by Felson and Messner – "It requires much more provocation to motivate a non-violent person to kill than it does a violent person. Those offenders who have killed in response to a significant provocation should therefore be less likely to have a violent history than offenders who kill in response to minor or no provocation" (1998, p. 407). The present study not only confirms this for offenders, but also for victims of serious violence. Alternatively, as argued by Beauregard and Mieczkowksi (2012) and Ganpat et al. (2014), it might be the case that those who have committed at least one prior violent crime have learned and gained certain experience and skills in coping with dangerous,

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violent situations, making them more capable of restraining themselves and thus preventing a violent conflict from ending lethally. It is too early to draw conclusions about these explanations.

This study offers several directions for future theoretical discussions and empirical research. First, there is a need to examine the role of criminal history of offenders and victims, as well as and especially of immediate situational characteristics in lethal versus non-lethal violent events. This study not only provides empirical support for the theoretical notion that the characteristics of offenders and victims (propensities) that they bring to violent encounters matter (e.g., Gottfredson & Hirschi, 1990) (although not in the expected direction); it also shows that the immediate situation is an important contributing factor to a lethal outcome (e.g., Cohen & Felson, 1979; Ganpat et al., 2013a, 2013b; Luckenbill, 1977), especially if no third party was present, victim precipitation was involved, and offenders displayed or used a firearm. In particular, this is one of the first studies in the field to provide empirical evidence for DiCataldo and Everett' assertion (2008) that immediate situational factors are more important than one's criminal history in explaining lethal outcomes. Specifically, a lethal outcome cannot be explained sufficiently by only considering individuals' personal characteristics. The present study provides fairly strong support for the need to include both long-term risk factors involving personal characteristics (i.e., a person's criminal history) and short-term risk factors involving the immediate situation when considering violent outcomes, which is in line with our integrated theoretical model (Figure 1). Consequently, an important theoretical implication is that both criminal history and immediate situational factors must be considered simultaneously to understand more fully why certain violent events end lethally while others do not. Additionally, this study demonstrates that existing studies that only focus on offenders are overlooking important facets in understanding a lethal outcome. Findings show that understanding a lethal outcome of violent events requires a more dynamic approach, which goes beyond taking only offenders into account. Theoretically and empirically, to understand violent outcomes more

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comprehensively demands a further scrutiny of the role of all actors present during violent encounters. Our integrated model may (cf. Figure 1) inform future theoretical and empirical studies in this field.

The findings also yield several suggestions for possible strategies to reduce lethal violence. Overall, preventive programs should especially invest in reducing situational factors that are conducive to a lethal outcome, as these are generally more changeable than a person's characteristics. For instance, given that the presence of third parties can decrease the likelihood that a violent event ends lethally – regardless of how they behave – raising the public's awareness of the influence of third parties can potentially help reduce the likelihood of a lethal outcome. This may happen by (a) encouraging a sense of responsibility among the public to stop violence, and (b) spreading knowledge on what one can do to stop further violence. For instance, a recent review by Nelson et al. (2011) showed that a sense of responsibility and intervention skills encourage third parties to intervene, whereas a lack of knowledge and/or skills discourages third parties to intervene. Thus, future programs could invest more in providing the public with concrete tools on what to do when encountering serious violence, as this could help prevent a further escalation of the conflict.

The study also has several limitations. Firstly, since a selected sample of violent events was used, it is possible that different results may be obtained when including cases involving multiple offenders/victims. A second limitation is that more direct measures of self-control theory or routine activities were not available in this study. Consequently, criminal propensity for example was measured indirectly by examining a person's criminal history. To test these theories more fully, measuring criminal propensity more directly is advisable. Also, an inevitably dark figure of crime exists, because not all committed crimes are recorded in official records. Furthermore, as we only considered the subtypes of conflicts to some extent, further data collection is required to determine exactly how criminal history and situational factors affect violent outcomes, by zooming in on certain subtypes of conflicts. Lastly, future studies should devote more attention to the exact sequence of actors' actions in lethal versus non-lethal events,

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preferably identifying the stages in which violent events unfold from the beginning to the end (cf. Luckenbill, 1977).

The main conclusion of our study is that victims' and offenders' criminal history are both important, but that the immediate situation ultimately determines to a greater extent the outcome of violent events. Addressing the role of criminal history and situational factors in violent events simultaneously and more systematically therefore appears to be a fruitful direction for research which can also benefit public safety policies.

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FIGURES AND TABLES

Figure 1: Triangle offender, victim and third party and criminal propensity and immediate situational factors
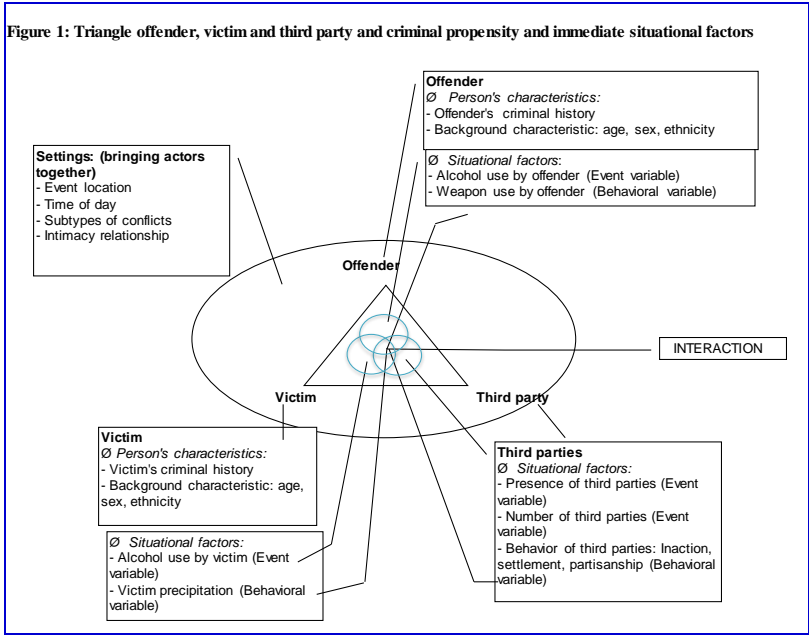
Table 1 Criminal history of victims and offenders in lethal vs. non-lethal events

Variable	Lethal outcomes (n = 126)	Non-lethal outcomes (n = 141)	p Value	Statistical test	χ²	Effect size†
Offenders' criminal history						
Existence of prior criminal record (%)	68	73ᵃ	.355	Pearson Chi-Square	.855	-0.057
Average number of prior criminal records	5.8 (SD = 8.9)	5.4 (SD = 7.9)ᵇ	.698	Mann-Whitney	-	d = 0.048
Existence of prior violent record (%)	40	48ᶜ	.201	Pearson Chi-Square	1.633	-0.079
Average number of prior violent records	0.9 (SD = 1.5)	1.1 (SD = 1.7)ᵈ	.216	Mann-Whitney	-	d = 0.125
Victims' criminal history						
Existence of prior criminal record (%)	36	57ᵉ	.001	Pearson Chi-Square	11.903	-0.214
Average number of prior criminal records	2.1 (SD = 5.4)	3.5 (SD = 7.5)ᶠ	.002	Mann-Whitney	-	d = 0.214
Existence of prior violent record (%)	16	32ᵍ	.003	Pearson Chi-Square	9.087	-0.187
Average number of prior violent records	0.3 (SD = 0.9)	1.0 (SD = 2.3)ʰ	.002	Mann-Whitney	-	d = 0.401
Both victims and offenders have a prior criminal record (%)	27	43ⁱ	.007	Pearson Chi-Square	7.153	-0.166
Both victims and offenders have a prior violent record (%)	8	17ʲ	.024	Pearson Chi-Square	5.095	-0.140

Note. ᵃmissing =2; ᵇmissing = 2; ᶜmissing = 2; ᵈmissing = 2; ᵉmissing = 6; ᶠmissing = 6; ᵍmissing = 6; ʰmissing = 6

ⁱmissing = 8; ʲmissing = 8.

† Cohen's *d* for means; Pearson's Phi for Chi-square test

Table 2 *Event characteristics and actors' behavior in lethal vs. non-lethal events*

Variable	Lethal outcomes (n = 126) (%)	Non-lethal outcomes (n = 141) (%)	p Value	Statistical test	χ^2	Effect size†
Event characteristics						
Event location[a]						
Home	56	44	.037	Pearson Chi-Square	4.331	0.128
Street or parking lot	25	41	.008	Pearson Chi-Square	6.989	-0.162
Cafe, bar, restaurant	6	6	.979	Pearson Chi-Square	0.001	-0.002
Other	12	9	.487	Pearson Chi-Square	0.483	0.043
Time of the event[b]						
Morning	18	16	.748	Pearson Chi-Square	0.103	0.020
Afternoon	22	17	.313	Pearson Chi-Square	1.017	0.064
Evening	39	43	.605	Pearson Chi-Square	0.268	-0.033
Night	21	24	.523	Pearson Chi-Square	0.409	-0.040
Alcohol use by victim	26	20	.219	Pearson Chi-Square	1.514	0.075
Alcohol use by offender	29	36	.289	Pearson Chi-Square	1.126	-0.065
Presence of third parties	55	83	.000	Pearson Chi-Square	25.068	-0.306
Average number of third parties[c]	2.39 (SD = 5.6)	2.44 (SD = 3.4)	.000	Mann-Whitney	-	d = 0.011
Actors´ behavior						
Offender displayed or used a firearm	27	9	.000	Pearson Chi-Square	14.477	0.233
Offender's modus operandi						
Strangulation	14	6	.050	Pearson Chi-Square	3.826	0.120
Firearm	26	7	.000	Pearson Chi-Square	17.963	0.259
Sharp instrument	55	63	.165	Pearson Chi-Square	1.924	-0.085
Hitting, kicking, pushing with or without an object	5	18	.001	Pearson Chi-Square	11.801	-0.210
Other	1	5	-	-	-	-
Victim precipitation	34	23	.038	Pearson Chi-Square	4.305	0.127
Behavior by present third parties	n = 63 (%)	n = 114 (%)				
Partisanship	33	45	.139	Pearson Chi-Square	2.187	-0.111
Settlement	19	24	.476	Pearson Chi-Square	0.508	-0.054
Inactivity	48	32	.035	Pearson Chi-Square	4.464	0.159

Note. [a]missing = 1; [b]missing = 16; [c]missing = 41. Missing means that it was unknown

how many third parties were present. If no third party was present, this was coded as 0.

† Cohen's *d* for means; Pearson's Phi for Chi-square test

Table 3 Background characteristics in lethal vs. non-lethal events

Variable	Lethal outcomes (*n* = 126)	Non-lethal outcomes (*n* = 141)	*p* Value	Statistical test	χ^2	Effect size†
Male victims (%)	59	80	.000	Pearson Chi-Square	14.537	-0.233
Male offender (%)	94	89	.092	Pearson Chi-Square	2.836	0.103
Average age of victim	37.3 (*SD* = 15.9)[a]	32.3 (*SD* = 12.9)[b]	.015	Mann-Whitney	-	*d* = 0.345
Average age of offender	34.9 (*SD* = 11.0)[c]	27.8 (*SD* = 11.7)[d]	.000	Mann-Whitney	-	*d* = 0.625
Victim born in the Netherlands (%)	47[e]	55[f]	.201	Pearson Chi-Square	1.636	-0.084
Offender born in the Netherlands (%)	39	51	.046	Pearson Chi-Square	3.980	-0.122
Relationship: Non-stranger (%)	90[g]	77	.003	Pearson Chi-Square	8.818	0.182
Subtypes of conflicts[h]						
Related to arguments/altercations (%)	35	55	.001	Pearson Chi-Square	10.600	-0.201
Domestic conflict (%)	55	33	.000	Pearson Chi-Square	12.483	0.218
Felony-related or other conflict (%)	11	12	.689	Pearson Chi-Square	0.160	-0.025

Note. [a]missing = 17; [b]missing = 10; [c]missing = 1; [d]missing = 1; [e]missing = 19; [f]missing = 14; [g]missing = 2; [h]missing = 4.

† Cohen's *d* for means; Pearson's Phi for Chi-square test

Table 4 *Logistic regression models concerning criminal history and situational characteristics in lethal (1) vs. non-lethal events (0)*

Variable	Model I			Model II			Model III			Model IV			Model V			Model VI		
	B	Exp(B)	Exp(S.E.)	B	Exp(B)	Exp(S.E.)	B	Exp(B)	Exp(S.E.)	B	Exp(B)	Exp(S.E.)	B	Exp(B)	Exp(S.E.)	B	Exp(B)	Exp(S.E.)
Background characteristics																		
Male victims	-0.807	0.446	1.573	0.762	0.467	1.578	-0.544	0.580	1.600	-0.816	0.442	1.820	-0.278	0.757	1.751	-0.739	0.478	2.069
Male offender	1.375	3.956*	1.980	1.437	4.207*	1.994	1.506	4.510*	1.998	2.158	8.653*	2.406	2.564	12.984**	2.560	3.449	31.457**	3.360
Age of victim	0.015	1.015	1.013	0.014	1.014	1.013	0.010	1.010	1.013	0.011	1.011	1.017	0.005	1.005	1.016	0.031	1.031	1.021
Age of offender	0.028	1.028	1.019	0.031	1.032	1.019	0.029	1.030	1.019	0.036	1.037	1.025	0.057	1.058*	1.027	0.069	1.072*	1.036
Victim born in the Netherlands	-0.752	0.472	1.484	-0.705	0.494	1.492	-0.581	0.559	1.520	-1.023	0.360*	1.642	-0.510	0.601	1.634	-1.434	0.238*	1.946
Offender born in the Netherlands	-0.424	0.654	1.465	-0.424	0.655	1.473	-0.451	0.637	1.502	-0.273	0.761	1.634	-0.268	0.765	1.645	0.158	1.171	1.879
Relationship: Non-stranger	0.116	1.123	1.772	0.053	1.055	1.786	0.333	1.395	1.818	-0.107	0.898	2.061	-0.102	0.903	2.210	-0.758	0.469	2.651
Related to arguments/altercations	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Domestic conflict	0.797	2.218	1.613	0.819	2.268	1.621	0.783	2.188	1.629	1.548	4.700*	1.910	1.495	4.458*	1.846	2.384	10.851**	2.344
Felony-related or other conflict	0.478	1.613	1.954	0.490	1.633	2.000	0.712	2.038	2.026	0.994	2.702	2.340	0.988	2.686	2.421	0.544	1.723	3.025
Criminal history variables																		
Offenders' criminal history																		
Total number of prior criminal records				-0.003	0.997	1.029				0.041	1.042	1.037	0.014	1.014	1.036	0.090	1.094	1.047
Existence of prior violent record				-0.538	0.584	1.496				-0.591	0.554	1.645	-1.131	0.323*	1.714	-1.379	0.252*	1.912
Victims' criminal history																		
Total number of prior criminal records							-0.039	0.962	1.055	-0.031	0.970	1.078	-0.002	0.998	1.074	0.017	1.017	1.103
Existence of prior violent record							-1.037	0.354	1.939	-1.512	0.220	2.303	-2.465	0.085**	2.560	-3.740	0.024**	3.347
Immediate situational variables																		
Event characteristics																		
Location: Home										Ref	Ref	Ref				Ref	Ref	Ref
Location: Street or parking lot										0.470	1.599	1.898				1.232	3.428	2.241
Location: cafe/bar/restaurant										0.360	1.434	4.162				-4.180	0.015	10.085
Location: Other										1.196	3.306	2.366				0.962	2.617	3.037
Morning										Ref	Ref	Ref				Ref	Ref	Ref
Afternoon										1.272	3.569	2.195				1.718	5.574	2.457
Evening										1.357	3.885	2.048				1.188	3.279	2.309
Night										0.338	1.402	2.100				0.364	1.439	2.361
Alcohol use by victim										1.444	4.236*	1.800				1.660	5.261*	2.237
Alcohol use by offender										-1.242	0.289*	1.692				-1.456	0.233*	2.036
Presence of third parties										-2.080	0.125**	1.697				-	-	-
Number of third parties										0.191	1.210**	1.075				0.307	1.359*	1.127
Actors' behavior																		
Victim precipitation													1.830	6.231**	1.781	2.366	10.657**	2.125
Offender displaying or using a firearm													3.766	43.205**	2.363	4.729	113.130**	3.155
Absence of third parties													Ref	Ref	Ref	Ref	Ref	Ref

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Partisanship by third parties															-1.558	0.211*	1.952	-4.023	0.018**	2.886
Settlement by third parties															-1.852	0.157**	1.919	-3.153	0.043**	2.351
Inactivity by third parties															-1.345	0.260*	1.893	-2.515	0.081**	2.300
Constant	-2.420	0.089*	3.254	-2.300	0.100	3.337	-2.586	0.075*	3.317	-3.320	0.036	6.430	-3.987	0.019*	5.726	-6.738	0.001**	13.290
Nagelkerke R square		0.270			0.285			0.319			0.525			0.574			0.694	
N		173			173			173			173			173			173	

Notes: The word "Ref" refers to the reference group following dummy coding.

*$p < .05$;**$p < .01$.*

NOTES

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[1] The authors thank the referees and editor for the careful reading of the manuscript and for their many valuable comments and suggestions.

[2] Given that lethal violence is relatively rare, the time period for the sample of murder/manslaughter has been expanded.

[3] Cases referring to Articles 290 and 291 were therefore excluded.

[4] Cases under appeal were often not present at the district courts.

[5] In case of contradictory information, we heeded a hierarchy based on the reliability of the documents, primarily relying on more objective sources including expert assessments.

[6] The Criminal Record Register is a digital copy of JDS. To make both criminal record data sets as comparable as possible, cases in JDS concerning acquittals, technical dismissals and misdemeanors were excluded.

[7] In our logistic regression analyses, ultimately a total of 173 serious violent events were included, because of missing values in some variables (especially concerning the variables 'age of victims', 'victim born in the Netherlands' and 'number of third parties').

[8] Using 40 or higher as a cutoff-point for possible outliers, 8 observations were recoded to the value of 40.

[9] Initially, we also strived to include information about the amount of consumed alcohol. Unfortunately, this information was often missing in files.

[10] Initially, we also attempted to collect data on victim resistance. However, as this information was often missing in the court files this was excluded in the analyses.

[11] Being a multicultural society with a lot of immigrants, there is a research tradition in the Netherlands of comparing crime involvement of ethnic Dutch inhabitants with other ethnic groups.

[12] We note that caution is warranted when interpreting and comparing parameters between logistic regression models (Mood, 2010).

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[13] The VIF-value did not exceed a value of 4, indicating that multicollinearity did not bias the results. Also, considering the values of Cook's Distance (cut-off point $D_i < 1.0$), six observations were excluded.

[14] As mentioned earlier, six observations were excluded from the analyses due to high Cook's D values ($D_i >= 1.0$). However, as a result, the exp(B) value of 'offender displaying or using a firearm' is very high. Nevertheless, a sensitivity analysis shows that when the analyses were conducted with or without these 6 observations, the overall conclusion remains the same.

[15]In the multivariate analyses, inactivity, settlement and partisanship were found to be significantly associated with a nonlethal outcome of violent events whereas they were found to be either nonsignificant or associated in the opposite direction in the univariate analyses (see Table 2). Possibly, this finding may be related to the fact that – in contrast to the univariate analyses – we included here dummy variables with the absence of third parties as reference group in order to examine its effect on violent outcomes and controlled for other variables as well.