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## **Killing Under the Influence** **A Quantitative-Descriptive Study of Alcohol-Related Homicides in the Netherlands from 2010 to 2015**

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*To the People of Wijnhaven*

«It's gone. It's done.»

(Baggins, 2013)

### **Abstract**

*From 2010 to 2015, 122 homicide cases were officially cleared in the Netherlands that shared one common denominator – alcohol. While the consumption of alcohol may evoke feelings of joyful exuberance on the one hand, it can also result in devastating and life-depriving consequences that ultimately damage societal cohesion.*

*Alcohol-related homicide is widely unexplored worldwide, but this is especially the case for the Netherlands. Embedded in the European Homicide Monitor, a European research project providing a platform for joint European homicide research by information sharing on national homicides, the Dutch Homicide Monitor promises pioneering spirit.*

*A qualitative-descriptive analysis of homicide data obtained from the Dutch Homicide Monitor has revealed the following epidemiological distribution of alcohol-related homicide for the Netherlands for the period as stated above:*

*With the obstacle of under-reporting in mind, 20 homicide cases occur yearly in the Netherlands where either victim and/or perpetrator are intoxicated at the time of the fatal incident. Alcohol-related homicide affects urban and rural areas almost equally. Most homicides can be categorised as 'partner killings' or 'nightlife violence'. Regarding the crime scene, public places and private homes are often subject to violent victimisation. In almost half of the cases was a knife or a sharp object the primary modus operandi. Thursdays or weekends are especially prone for alcohol-related homicide. On average, the age for alcohol-related victimisation is 34 years and for alcohol-related offending 35.5 years.*

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## List of Abbreviations

BAC	Blood Alcohol Content/ or Concentration
DHM	Dutch Homicide Monitor
EHM	European Homicide Monitor
EU	European Union
LST	Lifestyle Theory
RAT	Routine Activity Theory
SCT	Social Control Theory
TBS	Treatment-based Sentencing (in original: Terbeschikkingstelling)
USA	United States of America
V	Variable
WHO	World Health Organization

## Introduction

[Homicide] is uniquely harmful and strikes at the very heart of what most of us hold most precious – our life (Brookman, 2005, p. 1).

## Problem Outline

Estimates suggest that 24% of the global homicide rate can be related to prior consumption of alcohol (Bye, 2012). In Europe, 4 out of 10 homicides are attributed to alcohol intoxication (Bye, 2012). The English term ‘homicide’ incorporates a surprisingly diverse range of killings (Smit, de Jong, & Bijleveld, 2012). For the purpose of this thesis, homicide is defined as “the killing of a human being, whether the killing is lawful or unlawful” (Brookman, 2005, p. 6). This thesis attempts to uncover the prevailing epidemiology of one of the most horrendous types of crime, in relation to alcohol consumption, for the Netherlands.

The relationship between alcohol and violence is anything but straightforward. For instance, does drinking cause violence as a result of genetic predisposition or does violence result in alcohol consumption based on social frustration and marginalisation? Moreover, are both phenomena mutually dependent or is the relationship spurious? What role do drinking patterns constitute in this relationship because eventually only a small fraction of intoxicated people commits homicide? The contested alcohol-violence relationship serves as the tenet for the exploration of the alcohol-homicide relationship.

This research focuses on the worst possible form of alcohol-affiliated societal harm – homicide associated with drinking. While a plethora of biological (Goldstein, 1985; Gottfredson & Hirschi, 1990), psychological (Bandura, 1978; Clark, John, Boccaccini, Caillouet, & Chaplin, 2007), social (Pridemore, 2011; Lehti & Kivivuori, 2005) and predominantly criminological theories (Hindelang, Gottfredson & Garofalo, 1978; Cohen & Felson, 1979) attempt to determine the exact causal mechanisms of the relationship mentioned, it is more likely that an interplay of various factors may result in (deadly) violence. Such factors pertain to situational setting, individual characteristics, cultural context and different types of drinking patterns (Bye, 2012; Lehti & Kivivuori, 2005).

## Academic and Societal Relevance

From a psychopharmacological perspective (Goldstein, 1985), alcohol intoxication is directly causing violent behaviour, because it inhibits rational thinking as well as hindering appropriate social behaviour (de Bont & Liem, 2017). Previous studies (Kuhns et al., 2014; Rossow et al., 2001; Pridemore, 2016) have confirmed a positive relationship between the consumption of alcohol and homicidal acts, which renders alcohol a risk factor for public health. Europe is especially affected by alcohol-related homicide as Europeans are the worldwide leading consumers of alcoholic beverages – across all social strata (Bye, 2012; World Health Organization, n.d.). Moreover, detrimental drinking patterns and the consumption of large volumes of alcohol, in contrast to moderate alcohol consumption, are profound risk factors for engaging in possibly lethal violence (Bye, 2008; Pridemore, 2016). According to the World Health Organization (WHO), heavy episodic drinking patterns are defined as “60 or more grams of pure alcohol on at least one single occasion at least monthly” (World Health Organization, 2014) or “five or more drinks in one sitting for males and four or more for females” (Pridemore, 2016). In contrast to Southern Europe, Northern European countries are prone for irregular but intoxication-oriented drinking patterns, accompanied with social acceptance for displaying drunken behaviour in public, which highlights an increased risk for victimisation or offending in predominantly Northern and Eastern Europe but also in Central Europe (Bye, 2012). Therefore, it is crucial to identify risk factors in affected regions. Estimates suggest that 40-70% of all homicide cases in North and Central European countries are alcohol-related (Bye, 2012). Moreover, the Dutch government estimates that 26 to 43% of the total amount of violent acts are alcohol-related (Government of the Netherlands, n.d.). However, for the Netherlands, as part of Central-Western Europe, the relationship between alcohol intoxication and homicide remains unexplored in the scientific community (Liem, et al., 2013) given the fact that “the involvement of alcohol in violence and homicide offenses is not routinely recorded across Europe” (Bye, 2012, p. 236).

It is the aim of this thesis to provide systematic and quantitative knowledge about the epidemiology of alcohol-related homicide in the Netherlands by drawing on the most detailed

homicide data set available for the Netherlands, the Dutch Homicide Monitor<sup>1</sup> (DHM), which provides extensive coverage of homicide incident, offender and victim characteristics (Liem, et al., 2013). The performance of descriptive statistical analyses on information derived from the DHM will eventually provide knowledge about the occurrence of alcohol-related homicide regarding type, location, time, modus operandi of the incident and age, gender, birth country of both victim and offender and the relationship between them. Routine Activity Theory, one of the most prominent criminological theories (Parker, McCaffree, Callanan, & Saltz, 2013), will be subject to scrutiny within the Dutch context of alcohol-related homicide.

The distribution, and more specifically, the characteristics of alcohol-associated homicide can inform policymakers about the prevalence of this life-threatening public health and safety issue and thus promote adequate prevention strategies. Public health initiatives focus on preventative and rehabilitative measures to combat the negative implications of alcoholism on both individual and societal level. For the latter, public health campaigns and national alcohol policy, such as high alcohol taxes and/or restrictive regulations, are popular means used by governments to cut down on alcoholism (Room, Babor, & Rehm, 2005). As for the individual level, people with a history of alcohol abuse can seek therapeutic treatment or in-patient detoxification therapy for rehabilitative purposes (Room, Babor, & Rehm, 2005). The pre-emptive character of the public health approach pursues mainly two goals. First, the overall reduction of alcohol consumption aims to decrease the 60 diseases known to be caused by alcohol dependence, such as cardiovascular diseases or cancer, which not only cost lives but also cause high public expenditure (Room, Babor, & Rehm, 2005). Second, the promotion of public safety is as important as public health, which are frequently interlinked. It is without question that alcohol is associated with intentional as well as unintentional injuries caused by cognitive impairment on the part of the victim and/or offender (Room, Babor, & Rehm, 2005). "Most countries European countries have alcohol-attributable fractions of around 30-40% for intentional injury, and about 5% lower attributable fractions for unintentional injury" (World Health Organization, 2016)

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<sup>1</sup> Embedded in the European Homicide Monitor, the DHM is an ongoing research project registering every homicide or manslaughter incident for the Netherlands in the years 1992-2009. The information is based on public as well as confidential investigation reports (Ganpat & Liem, 2012). The DHM is maintained by Leiden University and is not publicly accessible without prior granted permission (Liem, et al., 2013).

In cases of failed, absent or ineffective intervention, criminal justice measures are an available means to sanction criminal behaviour. Depending on the degree of criminal accountability, which might be diminished due to alcohol's disinhibitory role for criminal behaviour, it can be punished with life imprisonment or 30 years at most for murder<sup>2</sup> and not more than 15 years for manslaughter<sup>3</sup>. A distinguished feature of the Dutch criminal system is the mandatory treatment-based sentencing (TBS, in original: Terbeschikkingstelling) for mentally disordered perpetrators deemed unaccountable for their deeds. This order may be applied in conjunction with imprisonment and can be imposed for an indefinite time period (Ganpat & Liem, 2012).

## Research Question

Alcohol intoxication is a culturally ambivalent gamble, because on the one hand it inhibits decent or social behaviour (Pridemore & Grubestic, 2013), but on the other hand "infiltrates the dreams and desires of the individual and promises their easy fulfilment" (Winlow & Hall as cited in Haydock, 2016, p. 1057) and offers a time period where seemingly "laws, prohibitions, and restrictions that determine the structure and order of ordinary, that is noncarnival, life, are suspended" (Bakhtin as cited in Haydock, 2016, p. 1057). Hence, the consumption of alcohol and the associated high risk of offending and victimisation constitute major societal issues for policymakers that seem – from a societal point of view – insoluble. This is the departure point from which novel scientific knowledge may inform future policy approaches by answering the following explanatory research question:

***To what extent can alcohol-related homicides in the Netherlands from 2010 to 2015 be explained by Routine Activity Theory?***

## Thesis Outline

This thesis is divided into six main chapters. To start, the introductory chapter informs the reader about the essence of the issue at hand and raises crucial questions and implications for public health as well as public safety. The first chapter concludes with the research question,

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<sup>2</sup> See art. 289 and 291 of the Dutch Code of Criminal Law (Ganpat & Liem, 2012).

<sup>3</sup> See art. 287, 288 and 290 of the Dutch Code of Criminal Law (Ganpat & Liem, 2012).

which is the central theme of this thesis and, therefore each chapter will relate back to the initial question posed. The second chapter elaborates on empirical research and the theoretical framework to demonstrate the current state of affairs, which shall be the tenet for the analysis of the results explored in chapter five. Beforehand, however, chapter four explains the methodological approach that was used to enter, extract and analyse data from the Dutch Homicide Monitor. Finally, the findings about frequency and distribution of alcohol-related homicide in the Netherlands are discussed together with limitations of this study that provide an outlook for future research.

## Empirical Background

As opposed to other types of crime, there is generally more information available on homicide – for cleared cases at least – due to the ‘visible’ evidence (victim) and its heinous character resulting in not only thorough police investigations but also public attention. The reliance and availability of empirical data renders it an utterly worthwhile research topic (Smit, de Jong, & Bijleveld, 2012). Nonetheless, alcohol-related homicide is largely under-researched due to practical and ethical implications regarding the accessibility of confidential data and questionable reliability of police reports that often lack information on intoxication levels in the event of homicide (de Bont & Liem, 2017). Moreover, alcohol consumption rates are always underrepresented in every country owing to unrecorded consumption such as home production in Russia (Bye, 2008) or cross-border shopping in the European Union (Rehm, et al., 2014). “Unrecorded alcohol constitutes about 30% of all alcohol consumed globally” (Rehm, et al., 2014, p. 88). Furthermore, cross-national studies are rare because homicide underlies different legal definitions in every country across the world but also within the EU (Liem & Pridemore, 2012) or data on homicide is not routinely recorded in some countries (Kanis, Messner, Eisner, & Heitmeyer, 2017) which eventually hampers comparative research (Liem, et al., 2013). Recently, Kanis et al. (2017) cautioned about the usage of the WHO’s Mortality Database for cross-national homicide studies due to their over-reliance of statistical models instead of national data for many countries. Having said that, the WHO is still the most adequate source available at present for global information on homicide (Kanis, Messner, Eisner, & Heitmeyer, 2017).

The following section explores previous studies of alcohol-related homicide in order to gain insight into existing empirical research to demonstrate the lack of research in Europe, let alone the Netherlands. It is essential to conduct homicide research because it unveils root causes of lethal violence, which are crucial indicators for public policy-makers to curb alcohol-affiliated lethal violence that shatteringly violates societal cohesion.

## Global Prevalence

Few homicide studies have previously been conducted which solely focus on the component of ‘alcohol’. These few studies, predominantly conducted in the US and Europe, are thus the

foundation of this thesis because they have observed a positive link between alcohol and homicide. It is noteworthy that cross-national homicide research mostly assumes a straightforward relationship between alcohol and violence, hence constituting an independent effect (Weiss, Testa, & Santos, 2018). In contrast to cross-country studies, studies focusing on the individual level rarely presuppose a direct link, but rather apply a multi-factor approach (Weiss, Testa, & Santos, 2018).

Kuhns et al. (2014) conducted a meta-analysis by aggregating results drawn from 23 studies across 9 countries in the time period from 1948 to 2008, thereby focusing on alcohol as a specific variable. The authors revealed astonishing figures about the extent of alcohol involvement in homicide cases. They found that on average 48% of all homicide offenders were under the influence of alcohol, thereof 37% were intoxicated. Kuhns et al. (2010) carried out a similar study in 2011. They then assessed the scope of alcohol presence among victims by relying on toxicological reports from 61 studies which tested blood alcohol concentration (sometimes referred to as blood alcohol content/BAC). The authors concluded that 48% of the victims during the years 1950 to 2005 and across 13 countries tested positive for BAC, while 33% were intoxicated.

Another study by Naimi et al. (2016) focused on homicide victims from 17 states in the US and confirmed a statistically significant relationship between alcohol consumption (39.9% of all cases) and homicide. Furthermore, the study examined victim characteristics such as gender and ethnicity. Results showed that males accounted for twice as many victims as females regarding a positively tested BAC. In terms of ethnicity among victims, the study concluded that certain ethnic groups were more affected by alcohol-related homicide. For instance, Native Americans or Hispanics proved to be a significant predictor for homicidal victimisation.

According to Parker et al. (2011), belonging to a certain age group proved to be a determining risk factor associated with homicide in the US. Their findings further revealed a positive relationship between alcohol outlet density and youth homicide for the age group 13-17 and 18-24 in the period from 1984 to 2006. Similar results have been obtained in South Africa by Ramsoomar & Morojele (2012) from 1998 to 2008, where about 50% of the 13-19-year-olds were reported positive for alcohol in their blood system.

Other research by Pridemore (2016) and Kivivuori & Lehti (2005) pertained to drinking patterns and social backgrounds on the part of homicide perpetrators. The latter named authors explained the unusually high homicide rate in Finland, which was threefold compared to other Scandinavian countries and the rest of Europe, by identifying unemployment and hazardous drinking patterns as predictors for violence. Pridemore (2016) also confirmed the relationship of detrimental drinking patterns and mortality rates among males. He conducted research in Izhevsk (Russia) from 2003 to 2005. In his population-based case-control design, nearly 60% of all cases were attributable to prior heavy drinking episodes.

One of the rare studies focusing on alcohol-related violence in Eastern Europe was presented by Bye (2008). She analysed six countries (Belarus, Russia, Bulgaria, Former Czechoslovakia, Hungary and Poland) ranging at the earliest from 1953 to not later than 2004 due to varying accessibility to data. She confirmed that Eastern European countries tend to consume more alcohol than the rest of Europe. The overall mean consumption of alcohol (aged 15 and above) was 10.8 litres (per 100,000 inhabitants) of pure alcohol each year. In comparison, Finland as the leading European country in terms of alcohol consumption had an average rate of 3.4 litres for almost the same period (Bye, 2008). Russia was the worldwide leading country with an average per capita consumption rate of 13.4 litres annually (Bye, 2008, p. 18). However, Bye (2008) and Weiss et al. (2018) drew the conclusion that homicide rates are not necessarily related to alcohol consumption per se, but rather to hazardous drinking patterns and the type of alcoholic beverage. Vodka, which was overwhelmingly consumed in Eastern European countries, results in faster intoxication and thus explains higher homicide rates at last (Bye, 2008). Moreover, she identified that homicide rates dropped systematically with changing alcohol consumption patterns at a societal level, which could be traced back to policy changes that restricted the overall consumption (Bye, 2008). On a cross-national level, Hockin et al. (2018) confirmed Bye's results. They showed that alcohol consumption was positively associated with homicide rates across 85 countries (Hockin, Rogers, & Pridemore, 2018).

Furthermore, public acceptance of drunken behaviour and radical societal transformations, such as the collapse of the former Soviet Union entailing high unemployment rates and more overall economic hardships (Bye, 2008,) were crucial factors to be considered in the Eastern European context. It is noteworthy to mention that Russia's drinking culture occurred less

frequently in public drinking establishments such as pubs or bars than in Western Europe but rather in private or semi-private drinking environments (Bye, 2008).

The following table provides an overview of all relevant alcohol-related homicide studies from the turn of the century onwards.

Authors	Region	Period	Type of Data	Type of Research	N	Focus	Main Findings
Andreuccetti et al. (2009)	São Paulo, Brazil	2005	Medical reports	Cross-sectional	2,042	Alcohol consumption among victims	Alcohol was detected in blood samples of 43% of all victims, thereof 44.1% were male and 26.6% were female. 'Firearms' (78.6%) and 'weekends' (56.4%) proved to be a risk factors for alcohol-related homicide.
Hockin et al. (2018)	83 countries	2005-2010	WHO database, WHO reports	Exploratory data analysis	n.a.	Alcohol consumption and victimisation rates	Beer and spirits consumption was positively associated with male and female homicide victimisation rates.
Kivivuori & Lehti (2005)	Finland, Sweden and Norway	1995-2002	Studies and national police reports	Cross-sectional	2238 (Sweden)	Linkage of alcohol consumption, drinking habits, social and high homicide rated in Finland	In all three Nordic countries, alcoholic men who were unemployed and living at the fringe of society mainly committed homicide.
Kuhns et al. (2010)	13 countries	1950-2005	61 studies	Meta-analysis	71,031	Alcohol toxicology findings among homicide victims	48% of homicide victims were tested positive for alcohol and 33% were determined to be intoxicated.
Kuhns et al. (2014)	9 countries	1948-2008	23 Studies	Meta-analysis	28,265	Prevalence of alcohol-involved homicide offending	48% of homicide offenders were reportedly under the influence of alcohol at the time of the offense and 37% were intoxicated.
Naimi et al. (2016)	USA (17 states)	2010-2012	Toxicological reports	Quantitative case study	13,3337	Alcohol Involvement in homicide victims	39.9% had a positive BAC. Males were twice as likely as females to have a BAC $\geq$ 0.08%. Independent predictors of homicide victims having a BAC $\geq$ 0.08: male gender, minority ethnicity, history of intimate partner violence, and non-firearm homicides.
Parker et al. (2011)	91 largest US cities	1984–2006	National homicide data	Multivariate, pooled time series and cross-section study	2093	Alcohol availability and youth homicide	The density of alcohol outlets had a significant positive effect on youth homicide for those aged 13–17 and 18–24.
Pridemore (2016)	Izhevsk, Russia	2003-2005	Izhevsk Family Study (IFS)	Population-based case-control Study	45 156	Hazardous drinking and violent mortality among males	Hazardous drinking was associated with increased risk of lethal violence by nearly 60%.

Ramsoomar & Morojele (2012)	South Africa	1998-2008	4 national prevalence and 2 sentinel surveillance studies	Cross-sectional	849 672	Alcohol-related harm among South African youth (13-19 years)	Homicides were significantly associated with blood alcohol concentration (BAC).
Ramstedt (2011)	Australia	1950-2003	Death certificates, alcohol consumption data	Time series analysis	n. a.	Population drinking and homicide in Australia	A one-litre increase per capita consumption was followed by an increase of 8% of all total male homicides, respectively 6% for females. The results were similar to those in Western Europe.
Swart et al. (2015)	Johannesburg (South Africa)	2001-2009	National data	Multivariate logistic analysis	323	Alcohol consumption in adolescent homicide victims	39.9% of the homicide victims were intoxicated. Results show that 'male' and 'weekends' were risk factors.
Weiss et al. (2018)	85 countries	2010	United Nations, WHO, World Bank World Development Indicators database	Cross-sectional	85	Demographic, political and cultural context	No direct relationship between consumption levels and homicide rates found. However, hazardous consumption patterns were positively associated with homicide rates. Furthermore, the prevalence of drinking and the quality of governance moderate this relationship.

*Table 1. Overview of international alcohol-related homicide studies from the year 2000 onwards*

## Homicide in the Netherlands

Homicide research in the Netherlands has only emerged in the 1990s, which is one reason why alcohol-related homicide is largely unexplored (Ganpat & Liem, 2012). Also, standardised registration of every homicide case was only introduced after 1992 (Ganpat & Liem, 2012). Before the establishment of the Dutch Homicide Monitor (DHM), research was mainly based upon national homicide data, which lack specific details regarding case, offender and victim characteristics. In addition, most hitherto studies are of a qualitative nature due to the rare occurrence of homicidal events. Hence, these studies are not representative of the entire population (Ganpat & Liem, 2012). However, the ongoing research project, the DHM, which is currently the most detailed homicide data set, and embedded in the European Homicide Monitor,<sup>4</sup> promises pioneering spirit. The aim of the EHM is to facilitate a systematic database applying unified coding standards of homicide information across Europe pertaining to case, offender and victim – with the prospect of enabling cross-country comparisons among European and other countries that will promote European homicide research at large.

Recently, first findings from the DHM have revealed the following distribution relating to homicide incident, offender and victim characteristics (not all alcohol-related) for the Netherlands in the years 1992 to 2009 unless stated otherwise. It should be kept in mind that approximately 90% of all homicide cases were solved for the time period stated above, which means that at least one perpetrator was subjected to criminal proceedings (Ganpat & Liem, 2012).

### Incident Characteristics

About 223 people die annually due to homicide in the Netherlands (Ganpat & Liem, 2012), which is about average compared to other Western European countries (Ganpat & Liem, 2012). However, the general rate of homicide is declining from a long-term perspective, which is also in alignment with the general European trend (Ganpat & Liem, 2012).

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<sup>4</sup> A joint database created to share knowledge about European homicides in anticipation of allowing comparisons and analyses among European countries by applying uniform definitions and aspects of homicide. So far, Sweden, Finland and the Netherlands contributed to this project (Liem, et al., 2013).

The cities of Amsterdam and The Hague record roughly twice the rate of homicides as the Dutch average, and more generally, urban areas account for the majority of all homicides in the Netherlands (Ganpat & Liem, 2012). Furthermore, family-related homicide is the most frequent type of homicide by one-third (Ganpat & Liem, 2012). In general, 1.07 victims are registered on average per case. The number of perpetrators is also mostly limited to one person in 77% of all solved cases (Ganpat & Liem, 2012).

In terms of location of the homicide incident, roughly 50% of all homicides are reported to take place in residential areas. Of the remaining 50%, 8% are killed in discos, bars or cafes (Ganpat & Liem, 2012). Generally, females are more likely to be murdered in residential areas (71%), whereas men are killed almost equally in residential and public areas (41% and 46% respectively) (Ganpat & Liem, 2012).

The modus operandi were primarily carried out either by firearms or sharp instruments. The use of firearms as lethal weapons occurred most frequently at 37%, followed by the use of sharp instruments such as knives or stiletos with 34%. The remainder were killed by strangulation, hitting, poisoning, drowning, burning or by injuries resulting from being struck by a car (Ganpat & Liem, 2012). Regarding gender distribution, males were predominantly assassinated with a firearm (46%) and women were primarily killed with a sharp instrument (35%) (Ganpat & Liem, 2012).

### Offender Characteristics

Overall, males are the predominant victims and perpetrators of homicide. Overwhelmingly, 90% of all offenders are male and 70% constitute male victims (Ganpat & Liem, 2012). On the other hand, women are comparatively seldom involved in homicide, either as offender or perpetrator, with the exception of child homicide for which women are held responsible in 52% of all cases (Ganpat & Liem, 2012).

Men run the highest risk of becoming an offender between the ages of 20-25 (8.0 per 100,000). Although the greatest likelihood for women becoming an offender is around the same age span, the possibility is however considerably lower (0.8 per 100,000) (Ganpat & Liem, 2012). It can be deduced from the homicide cases from the years 1992 to 2009 that the general age of

perpetrators for both genders is between 18 and 40 years (however, with significantly lower probabilities for women). After the age of 40, the risk of becoming an offender decreases steeply for both genders alike (Ganpat & Liem, 2012).

### Victim Characteristics

The risk of victimisation peaks at the age of 25 for both females (1.5 per 100,000) and males (4.1 per 100,000). Before reaching the age of 25, the probability of becoming a victim was similar for both genders. While the risk for victimisation is equally low from 1-14 years, the risk is increased below the age of 1 (2.1 per 100,000) and above 15 to 19 years, where the risk suddenly increases considerably (1.2 per 100,000). In a similar way to offender characteristics, the risk of victimisation decreased consistently until the age of retirement when the probability rate dropped to 1.3 for men and below 1.0 for women (Ganpat & Liem, 2012).

It is important to note that more than half of those involved in homicide in the Netherlands, either as perpetrator or victim, were not of Dutch origin (Ganpat & Liem, 2012).

The general prevalence of homicide in the Netherlands is an important point of departure for the analysis of the reported findings of alcohol-related homicides for the years 2010 to 2015 as presented later. To what extent does alcohol-related homicide account for all homicide cases between 2010 and 2015 in the Netherlands as compared with the findings from 1992 to 2009? But first, the following chapter elaborates on the theoretical assumptions regarding alcohol-related homicide.

## Theoretical Framework

### Alcohol-Violence Relationship

The influence of alcohol on violence is contested – to the extent that it may be considered to constitute a direct link with homicide, assume a mediating role, or is not directly related to violence at all (Bye, 2012). However, the first hypothesis finds least support among criminological scholars (Collins, 1981; Fagan, 1990; Pernanen, 1981), but is prevalent among psychological-behavioural or biological explanations. Consequently, the causal mechanisms between the effect of alcohol and the prevalence of homicide remain unsolved until today (Bye, 2012; Lehti & Kivivuori, 2005). Instead, it is more likely that an interplay of various individual and societal factors determines the cause of this most horrendous type of violence. In alignment with the research interest, this thesis is not premised on the assumption of statistical causality, but rather on the statistical association between alcohol and violence. In other words, it is irrelevant if alcohol consumption directly or indirectly affects lethal violence, it is in fact more relevant for this thesis that alcohol intake and homicidal violence are, statistically speaking, simply related.

There is generally more academic consensus about the alcohol-violence association regarding individual settings and characteristics affecting the mentioned relationship. These characteristics pertain to situational settings (private home/public drinking establishment), the individual (age, gender, biological composition, drinking history) and types of drinking patterns (regular but modest drinking/irregular but intoxication-oriented) (Bye, 2012).

#### 1) Biological Explanations for Violence

Alcohol intoxication has an inhibiting effect on individuals' social behaviour for a variety of reasons. Firstly, the consumption of alcohol impairs self-control by lowering the threshold towards aggressive behaviour (Kuhns, Wilson, Clodfelter, Maguire, & Ainsworth, 2010; Room, Babor, & Rehm, 2005). The pharmacological-induced influence raises the likelihood of aggressive instead of tempered behaviour because it adversely affects rational thinking patterns (Bye, 2012; Goldstein, 1985).

Secondly, the state of advanced intoxication compromises human attentiveness by limiting the number of cues available. This way, individuals are more prone to disregard to “pacifying stimuli” instead of contemplating non-violent pathways (Lehti & Kivivuori, 2005; Room, Babor, & Rehm, 2005).

Thirdly, certain genetic dispositions can trigger violent behaviour while under the influence of alcohol. This inclination towards aggression is mainly attributed to individual brain compositions and activities causing adverse behaviour. Consequently, some individuals show strong reactions towards impulsive and aggression-oriented behaviour, which is often associated with non-compliance in terms of social rules and norms. Males are especially affected by this genetic disposition. In many cases, childhood experiences or cultural contexts aggravate this sort of biological predisposition (Lehti & Kivivuori, 2005). It is, however, important to keep in mind that biological explanations are seldom isolated. Instead, they are interwoven with cultural, social and individual experiences (Brookman, 2005).

## II) Routine Activity Theory

From a criminological point of view, Routine Activity Theory (referred to as *RAT* henceforth) (Cohen & Felson, 1979) delivers valuable insights into opportunistic causes of criminal behaviour. This theory is widely cited among criminologists focusing on situational mechanisms that facilitate the opportunity for crime in general. Numerous scholars have applied this popular theory to alcohol-related homicide in recent and renowned publications (Aebi & Linde, 2014; Pridemore, 2016; Parker et al., 2013). What distinguishes alcohol-associated homicide from other types of homicide is that there is often no preceded planning or intent behind the murder, thus no premeditated murder, but rather an act of short-lived but far-reaching rage (Weiss, Testa, & Santos, 2018). The opportunistic nature of homicide where alcohol consumption is the main motivation for lethal aggression is profoundly taken into account within this theoretical outline.

Furthermore, the key asset of this theory is that it explains not only the risk for offending but also the risk for victimisation (Parker, McCaffree, Callanan, & Saltz, 2013). In other words, Cohen & Felson’s theory can explain different alcohol-associated scenarios where either victim or perpetrator – or both – are intoxicated in various settings, resulting in at least one casualty. Moreover, ecological factors such as ‘time’, ‘place’ and ‘opportunity’ are considered within this

theoretical framework. Similar to these factors are the variables from the Dutch Homicide Monitor that provide nearly the same information on each (alcohol-related) homicide case, which renders this theory an almost ‘perfect fit’ as an explanatory theoretical background for this research.

*RAT* posits that crime is the outcome of “three intersecting conditions” which are inextricably linked to one another. Felson & Clarke (1979) argue that the lack of one of these three theoretical pillars is sufficient to prevent crime in the first place (Parker, McCaffree, Callanan, & Saltz, 2013):



*Figure 1: RAT Model (Cohen & Felson, 1979)*

How can this theoretical framework explain the prevalence of alcohol-related homicide? The consumption of alcohol in Western cultures is a ubiquitous social habit, often associated with group gatherings in public drinking establishments (Parker, McCaffree, Callanan, & Saltz, 2013). Hence, bars and restaurants or more generally outlet-dense areas constitute so-called ‘hot spots’ for alcohol consumption or intoxication (Pridemore & Grubestic, 2013). Furthermore, the presence of alcohol is predominantly prevalent during nightlife, thus evening or night times are so-called ‘hot times’ (Rossow & Norström, 2011). Many studies have demonstrated that alcohol outlets and surroundings are often subject to homicidal victimisation (Pridemore & Grubestic, 2013). The state of inebriation, occurring mostly in public drinking establishments at night-time, facilitates the occurrence of violence in several ways.

Generally, drinking establishments lack guardianship in terms of security personnel, for instance the police, as well as technological installations such as CCTV cameras, which render drinking locations 'suitable targets' for intentional but also for unintentional violence. This way, potential offenders might be encouraged to engage in anti-social behaviour instead of social behaviour. This lack of guardianship is further supported by the fact that both the potential victim and other present individuals in the drinking establishment, such as staff or guests, are very likely to be intoxicated at the same time as the offender (Parker, McCaffree, Callanan, & Saltz, 2013; Bye, 2008). Furthermore, consuming alcohol in public places is mainly associated with heavy episodic drinking patterns in contrast to tempered drinking (Pridemore & Grubestic, 2013). Previous studies have demonstrated a strong link between hazardous drinking patterns and lethal victimisation (Pridemore, 2016; Kuhns, Wilson, Clodfelter, Maguire, & Ainsworth, 2010). Consequently, the likelihood of a bar quarrel escalating into a serious assault for aforementioned reasons such as inclined use of violence among males is enhanced given the fact that supervision is compromised either due to absent guardianship or incapable guardianship.

The risk for victimisation and offending is, however, not necessarily related to alcohol consumption per se by either victim and/or offender, but the mere presence in 'hot spots' is already a sufficient risk factor for becoming involved in violent confrontations. In this case, alcohol serves as an intervening factor instead of being a direct causal variable for victimisation, because the victim's blood alcohol concentration may be negative but still they become involved in alcohol-related homicide simply because offender and victim are at the same location at once.

If alcohol is present on both sides, however, then the potential offender is likely to find an 'easy target' due to the victim's alcohol intake which on the one hand lowers the victim's capability of self-defence and on the other hand might boost the offender's determination for displaying aggressive behaviour resulting from a psychopharmacological reaction (Parker, McCaffree, Callanan, & Saltz, 2013). Alternatively, alcohol can stimulate or encourage the offender's propensity to violence due to its tranquilising effect (Brookman, 2005).

The same path dependency is applicable to a scenario where only one side of the fatal connection is under the influence of alcohol. Either the perpetrator is the driving force behind the act or the victim's suspended defence reaction or boastfulness is eventually resulting in his<sup>5</sup> death. Similarly, the victim might be so intoxicated that he<sup>6</sup> is indirectly causing his own death by provoking the agitated offender until he brutally retaliates.

These theoretical assumptions give reason to believe that young people are especially affected by alcohol-affiliated homicide – both for offending and victimisation alike – for a variety of reasons. First, youngsters frequently visit public drinking establishments. Second, they tend to consume alcohol excessively. Third, young people are believed to engage more often in reckless behaviour as compared to other age groups (Weiss, Testa, & Santos, 2018).

To summarise, routine activities pursued by individuals attract both offenders and victims to a certain place and time where the potential victim is rather 'vulnerable' and the offender presumably 'motivated'. The intersection of these circumstances is further facilitated through lack of guardianship and more importantly through the pharmacological effect of alcohol on human behaviour. On a side note, this framework can also be applied to more private drinking settings due to the equally absent guardianship such as at home or on the streets.

### III) Lifestyle Theory

Another criminological theory about the prevalence of violence pertains to Lifestyle Theory (referred to as *LST* henceforth) coined by Hindelang, Gottfredson & Garofalo (1978). This approach is often applied in conjunction with *RAT* because both derive crime as an act of opportunity (Aebi & Linde, 2014). While both theories share many similarities, one of the key differences to *RAT* is the inclusion of long-term lifestyle trends associated with crime after World War II. Although the framework originated in the USA, it can be easily employed to European contexts because people's lifestyle was subject to similar historic milestones and modern developments. Historically speaking, 1968 was an important year in global history. The introduction of the Civil Rights Act in the USA and global protests around the world demanding

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<sup>5</sup> The masculine form is chosen intentionally here because of the frequent character of male-to-male alcohol-associated violence (see chapter 3).

<sup>6</sup> See above.

emancipation of women and liberation from political authoritarian regimes promised new social awakening. Accompanied by this historic turning point was a broader change of people's lifestyle. As of 1968, both women and men started to spend more time in public places at night time to enjoy leisure activities which then again implied greater vulnerability for (alcohol-related) victimisation (Aebi & Linde, 2014).

The next historic turnaround was in the 1990s, which introduced technological advancements into people's daily life. With hindsight, the invention of the internet generally reduced the amount of time spent in public places, especially for young people, hence the likelihood of exposure to criminal assault decreasing among the 'risky' group, which is supported by empirical studies observing a general decline of homicide rates in Western countries during the 1990s (Aebi & Linde, 2014).

Both presented theories demonstrate strong explanatory power regarding the occurrence of alcohol-related homicide as mainly an act of opportunity. While *LST* focuses on broader societal transformations, routine activity approach is more anchored in specific and present situational settings. More importantly, alcohol as an isolated and specific factor for delinquent behaviour as opposed to general criminal behaviour enhances the explanatory power of both theoretical strands. "While many indicators of lifestyle and activity are global and general, specific behavioral measures such as alcohol consumption provide more fine-grained tests of lifestyle and routine activity" (Parker, McCaffree, Callanan, & Saltz, 2013).

#### IV) Social Control Theory

Although Social Control Theory (referred to as *SCT* henceforth) coined by (Hirschi & Gottfredson, 1995) hardly reflects current policy trends in crime management, such as the expansion of the criminal justice system or increased numbers of police officers, it is nevertheless a useful theoretical foundation to explain the incentive or the absent incentive to commit crime (Schreck & Hirschi, 2009). *SCT* is based on the assumption that social networks consisting of related people and institutions prevent potential delinquents from committing crime because of the associated costs of criminal behaviour. The emotional pain inflicted on beloved people are reason enough to refrain from criminal behaviour, let alone criminal proceedings or incarceration imposed by state institutions which exacerbate that emotional

suffering. Consequently, *SCT* emphasises strong bonds between individual and society to curb violence or delinquent behaviour over increasing criminal sanctions. In case of absent social networks, the individual is more unrestricted and 'free' to commit crime due to a lacking social environment condemning or disapproving such behaviour (Schreck & Hirschi, 2009).

What does *SCT* mean in the context of alcohol-related homicide? Depending on the state of intoxication and the social network and/or institutional control, two pathways may emerge. The state of advanced inebriation impairs the decision-making process to the extent that rationally weighed and contemplated decisions are heavily immature or absent. Thus, the individual may disregard any warnings or contemplations, and commits homicide in the worst-case scenario.

In the best-case scenario, the individual refrains from committing a criminal offence due to alerting social ties or warning signs that are indirectly present, such as the awareness that criminal offences are subject to punishment. Without the prospect of legal punishment, the individual has no incentive to follow the laws established by the national government as posited by social control theory. Furthermore, the availability and reliance of a legal framework incentivises the pursuance of legal action against offences rather than illegal actions to resolve any disputes. It can be concluded from this argumentation that good governance generally reduces violence among citizens by asserting and maintaining sovereign power (Weiss, Testa, & Santos, 2018). "One means by which strong government institutions can reduce the harmful impact of alcohol consumption on homicide is by providing an outlet to settle conflicts, rather than leaving citizens to rely on retaliatory responses to interpersonal disputes" (Weiss, Testa, & Santos, 2018, p. 249).

In conclusion, the three criminological theories provide explanations for the opportunity of crime. As argued above, they deliver strong theoretical background for alcohol-related homicide. *RAT* is situated in present opportunistic possibilities for crime on an individual level, while *LST* adopts a long-term perspective that shapes cross-national trends of opportunistic criminal behaviour on a societal level and *SCT* takes on an overarching institutional or

governance perspective from where people's behaviour can be arguably steered. The presented three theoretical strings are mutually compatible.

Having reflected on both empirical and theoretical background of alcohol-related homicide, the following chapter elaborates on the methodological process regarding data collection and data operationalisation specific to the Netherlands. This chapter eventually explains the validity of the data and the reliability of the analysis for this research.

## Methodology

### Data Sources

The research of epidemiological features of alcohol-related homicide in the Netherlands is solely premised on the accessibility of the DHM.

The DHM, as the most detailed data set on homicides in the Netherlands and embedded in a European initiative (EHM) enabling ultimately cross-country comparisons, consists of 85 variables. Each variable reflects on either case, victim and/or offender characteristics covering a period from 1992 to 2016 (ongoing) (Liem, et al., 2013). The DHM includes all the cases that are judged by a Dutch court as either murder (Article 289) or manslaughter (Art. 287-288) according to the Dutch Code of Criminal Law. In other words, the monitor is based on charges prosecuted by the Prosecution Office; pending or unsolved cases are excluded. The information to complete the monitoring system was obtained from seven public and confidential sources, which may overlap sometimes, and was filled in by several researchers (Ganpat & Liem, 2012). The following bulleted list compiles all sources used for information gathering:

- All homicide newspaper articles by the Netherlands National News Agency (ANP)
- The Elsevier Annual Reports and Elsevier weekly magazines
- Files from the National Bureau of Investigation and files from the National Police Force (KLPD)
- Violent Crime Linkage Analysis System (VICLAS)
- Files from the Public Prosecution Service
- Files from the Judicial Information Service and Ministry of Justice
- Files from the Criminal Justice Knowledge Centre (WODC) (Ganpat & Liem, 2012).

### Data Collection

The DHM is coded extensively according to a standardised coding manual that elaborates on every variable label and its values. Largely, the data used for the analysis is based on secondary analysis (Bryman, 2012), which means that information was already filled in for almost every variable according to the corresponding homicide case. The information that was already filled

in for 'V Drink' and 'V Alcoholic' was double-checked and corrected where deemed necessary according to the stipulated coding rules as provided by the manual.

However, many variables, especially those affiliated with alcohol consumption, were either left 'blank' or coded as 'unknown'. In order to identify the complete alcohol-affiliated population (N), every 'blank' or 'unknown' cell was filled in with information during the coding process until all 'missings' were coded accordingly. In a hierarchical order, the information was mainly retrieved from publicly accessible court files<sup>7</sup> or from a national website<sup>8</sup> collecting information on many homicide incidents. Due to Dutch language obstacles and limited research time, the computer search function 'Ctrl + F' was a frequently used tool to detect potential alcohol involvement. Most commonly entered keywords were 'alcohol' and 'dronken' (in English: 'drunk' or 'drunken'). These keywords were considered essential, especially with regard to court files, because they detected quick, efficient and pertinent alcohol involvement in cases where intoxication played a crucial role. With every 'hit', the corresponding paragraphs were translated from Dutch to English language through 'Google Translate', which delivered reasonable and cohesive translations.

## Coding

The coding process unequivocally focused on the following two variables from the DHM, because they clearly stated whether alcohol involvement was applicable or not for each case:

- 'V DRINK'<sup>9</sup>
- 'V ALCOHOLIC'<sup>10</sup>

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<sup>7</sup> Website: [www.uitspraken.rechtspraak.nl](http://www.uitspraken.rechtspraak.nl).

<sup>8</sup> Website: [www.moordzaken.com](http://www.moordzaken.com).

<sup>9</sup> Complete variable name: "Had the individual been drinking alcohol at the time of the crime?" Four values were used to describe V Drink: '0' = "No, nothing in the case indicates this", '1' = "Yes, some indications exist", '2' = "Yes, there are sure indications", '999' = Unknown. Please see the coding manual of the DHM for further information (see appendix, V 64).

<sup>10</sup> Complete variable name: "Is the individual an alcoholic?" Four values were used to describe V Drink: '0' = "No, nothing in the case indicates this", '1' = "Yes, some indications exist", '2' = "Yes, there are sure indications", '999' = Unknown.

While the first variable acknowledges straightforward alcohol involvement for either perpetrator and/or victim during the homicidal act, the latter variable yields general information on alcohol dependence in either the victim's and/or the perpetrator's life. A diagnosis or a reasonable presumption of alcohol dependence, such as witness statements in general statements in court files that hinted at frequent and intoxication-oriented drinking behaviour, were operationalised in the same way as 'V Drink', hence as an explicit indicator of alcohol involvement. 'V Alcoholic' can be treated this way due to the notorious character of alcohol addiction, which in many cases infiltrates affected people's lives on a daily basis (Room, Babor, & Rehm, 2005). Thus, homicide perpetrated by alcoholics can be attributed to general alcohol abuse, even if the court file does not mention it explicitly. In few cases where the psychological report of the court hearing stated that the offender was clearly in remission but still suffering from negative mental health impacts due to years of abuse, the case was nonetheless coded as 'V Alcoholic' because of the associated long-term consequences of alcoholism impairing rational thinking and behaviour (Room, Babor, & Rehm, 2005).

Another reason for treating 'V Alcoholic' as an indicator for 'V Drink' was the overall under-coverage of alcohol involvement, which is a strong limitation of this study. The involvement of alcohol in homicide cases was generally underrepresented in the DHM, also commonly known as 'false negatives' (Brookman, 2005), due to insufficient police reporting which was then again reflected in the court file where the specific component of alcohol was most likely omitted as the following case exemplifies:

*On a Saturday in 2015, a 42-year-old male attended the outdoor festival 'Night at the Park' in The Hague. The suspect arrived at around 21:45 pm. The exact progression of events remains unclear, but presumably, he and/or a bystander had called that he had a weapon. The suspect resists several police officers who keep him in a stranglehold on the ground. The suspect becomes unconscious and is resuscitated on the way to the police station. An ambulance takes over from the station, but he dies from his injuries the following evening.*

As for many other cases, the court file did not mention the role of alcohol in this instance, although 'time' and 'place', let alone criminological theories such as routine activity, are strong indicators for its presence. This example case demonstrates the rigorous negligence of alcohol reporting by presumably criminal investigation authorities. This observation is further supported by other researchers (de Bont & Liem, 2017; Parker, McCaffree, Callanan, & Saltz, 2013).

The following case demonstrates the dilemma associated with coding alcohol involvement, where alcohol was reportedly present for at least one individual, but other present individuals were coded as 'unknown' because it is not clearly evident from reports whether other individuals were drunk as well during the incident, although it is reasonable to assume precisely that:

*A 33-year old Irishman dies from the effects of a fight a few days earlier in a pub. The victim was drunk. Two 45-year-olds get 8 and 9 years' imprisonment for manslaughter. They had beaten up the Irish at the request of the bartender.*

This case represents a paradigm example for the proposed *RAT* framework where the lack of guardianship, the presence of motivated offenders and a vulnerable victim in a 'hot spot' in due 'hot time' facilitate the opportunity for homicide. Although, the presence of alcohol was only explicitly mentioned for the victim, it seems highly likely that both offenders have been drunk as well, but have not been coded as such.

The population of interest was further compiled by checking case descriptions, locations and times of the homicide incidents. The case descriptions were nearly unusable, because they only focused on the most important facts pertaining to the progression of events. More promising was the theoretical approach provided by routine activity that highlights certain places at certain times as useful indicators for identifying corresponding cases. However, checking all the relevant cases where 'V Crime Scene' was coded with the value 9 = "Shop, restaurant or other places of amusement", 'V Time' with the value 3 = "Evening (18.00 to 24.00)" or 4 = "Night

(00.00 to 06.00)” has still not yielded the expected outcome. The rigorous negligence of ‘alcohol’ in court files where applicable made it necessary to establish a new variable by operationalising the concepts of *RAT*.

The underrepresentation of alcohol information was hence compensated by recoding both ‘V Drink’ and ‘V Alcoholic’ into a new variable labelled as ‘V Alcohol-related’, which encompassed all the cases identified as most clearly alcohol-related (“Yes, there are sure indications”). To further ensure a statistically significant and exhaustive population sample, the use of proxy indicators derived from *RAT* about potential ‘place’ and ‘time’ of alcohol-related homicide was imperative. Thus, the following variables from the DHM were directive to create a new variable called ‘V Proxy’ where sensible:

- TIME (Night or Evening)
- TYPEHOM (Nightlife violence)
- CRIMESCENE (Shop, restaurant or other places of amusement)

*On a weekend night in 2015, a 27-year-old male is stabbed in the town centre. He was out with a group of friends, when he went to get something to eat with a friend around 02.15 am. Then he walked across the market square to the taxi stand, where his friends were already waiting. He was stabbed at the ABN AMRO bank and collapsed on the ground. Despite resuscitation attempts, he later died in the hospital from his injuries. A 25-year old male was arrested for manslaughter.*

Having checked all the cases where alcohol potentially assumed a decisive role, 21 cases have been retrieved as most likely affiliated with alcohol consumption (“Yes, some indications exist”) including the three cases presented above.

For the years 2010-2015, a total amount of 886 homicide cases (=principal victims) have been documented in the DHM, thereof non-alcohol-related cases (N=764 or 86%) and alcohol-related cases (N=122 or 14%). Ultimately, the population of interest was composed of clearly alcohol-related cases (N=101 or 83%) and proxy cases (N=21 or 17%) derived from evening and nightlife violence or public places amusement, where at least one person was under the

influence of alcohol during the homicide event. In total, 122 out of 886 cases are alcohol-related, which equals approximately 14% of the total amount of homicide cases in the period studied.

## Analysis

For the quantitative-descriptive analysis of the gathered data, *IBM SPSS Statistics* was the standard tool used to describe the main characteristics of the population.

For practical reasons, 'V Proxy' was merged with 'V Alcohol-related', which entailed the establishment of new value labels, whereas the value '3' assumed the values of 'V Proxy':

'1' = "Yes, there are sure indicators"

'2' = "No/Unknown"

'3' = "Yes, some indicators exist"

Furthermore, the file was further split into two different data sets that contained solely perpetrators (principal and non-principal perpetrators) or solely victims (principal and non-principal victims) to facilitate analyses. Both new datasets included only alcohol-related individuals.

It is important to keep in mind, that the original population also encompasses individuals that were not intoxicated at the time of the crime. This is mainly due to the fact that the main inclusion criteria for the population was that at least one person must be under the influence of alcohol. Consequently, for cases (N= 122) (usually at least one perpetrator and one victim) where only one individual meets the requirements, the other individual was still included in the population – at least for analyses on case level. The inclusion of non-intoxicated individuals was necessary to achieve representative numbers of victims (> 1) or perpetrators (> 1) which exceeded more than one person on either part. For both victim or perpetrator level analyses, unaffected individuals were excluded to avoid misrepresentation of the results. Hence, analyses for victims (N= 69 out of 123 victims in total) and offenders (N=125 out of 144 offenders in total) are solely based on a population with the common denominator of alcohol presence during the incident. In practice, about half of the cases involved only one individual

being drunk at the time of the offence (N=62 or 51%), the remaining cases (N=60 or 49% including 21 proxy cases) reported at least two individuals in an advanced state of inebriation. Furthermore, cases with multiple perpetrators ( $\leq 3$ ) were also present (N=13 or 11%), cases with two perpetrators and two victims (N=3 or 2%) and one case with four perpetrators and two victims (N=1 or 1%). The overall majority, however, constituted of the cases with two individuals (N=105 or 86%).

To summarise, the population consists of 122 cases with at least one perpetrator and/or one victim intoxicated on a case level. Out of the total amount of cases, 69 victims were under the influence of alcohol and 125 perpetrators were reportedly drunk during the time of the fatal incident.

### Reliability and Validity

A high intra-coder reliability<sup>11</sup> (Bryman, 2012) during the coding process of this quantitative research was maintained by intense preoccupation with the coding manual before the coding process had commenced and during the coding process, expeditious coding over the period of coding to maintain high consistency (approximately 4 weeks) and regular consultation with other researchers working on the DHM in case of ambiguities or uncertainties. Overall, the coding process was conducted under heightened awareness of the analytical pitfall – ecological fallacy – the erroneous conclusion that inferences about individuals can be drawn from aggregate data (Bryman, 2012).

The quality of the obtained results is further guaranteed through the high validity of the analysed data. On the one hand, this is reflected in the information gathering process by other researchers as well as myself and on the other hand, this is mirrored in the three perspectives that were subject to data gathering and analysis. Every variable holds information on either victim, perpetrator or the generic case. This is especially valuable because both victim and offender level are immensely unexplored in the scientific community due to ethical and practical obstacles regarding neglected reporting by investigating authorities and limited access to highly sensitive data (Parker, McCaffree, Callanan, & Saltz, 2013).

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<sup>11</sup> The author of this thesis solely carried out the coding.

Finally, the results from the alcohol-related population are juxtaposed with findings from the non-alcohol-related population to ensure internal validity. In particular, differences are mainly highlighted.

The next chapter examines the distribution of alcohol-related homicide regarding case, offender and victim characteristics obtained from descriptive analysis of the yielded information by the DHM.

## Results

From 2010-2015, a total of 122 alcohol-related homicide cases were officially cleared in the Netherlands and thus registered in the DHM, thereof 69 victims were recorded as under the influence of alcohol and 125 perpetrators intoxicated at the time of the incident. On average, 20 homicides occurred each year that are relatable to alcohol consumption with 12 victims per year and 21 perpetrators yearly. Altogether, 63 cases (52%) were judged as murder, 47 cases (38%) were determined as manslaughter according to the Dutch penal code, and 12 cases (10%) remained unknown. Moreover, the number of lethal assaults remained fairly stable over the studied time period, ranging from minimum 16 to maximum 22 cases per year. The average rate of alcohol-related homicide constitutes roughly 9% (N=20) of the total Dutch annual homicide rate (N=223).

In terms of regional distribution, the three largest cities of the Netherlands (Amsterdam, Rotterdam and The Hague) accounted for 27 out of 122 homicide cases, which constitutes about one fifth of the total amount of cases. The cities of Amsterdam and Rotterdam had 10 cases of homicide respectively and The Hague registered 7 cases. Followed by Groningen with 4 cases and Drachten, Gouda and Leeuwarden with 3 cases each. The residual amount of cases was spread across the Netherlands with either two or less cases. In conclusion, alcohol-associated homicide occurred slightly more in urban (N=65 or 53%) than rural areas (N=57 or 47%), whereas urban was defined as exceeding a population size of 50,000 inhabitants.

In the non-alcohol-related case population (N=764), the city ranking was more pronounced. Amsterdam registered most homicides (N=98 or 13%), followed by Rotterdam (N=75 or 10% and, some distance behind, The Hague (N=29 or 4%). In terms of urbanisation, the results were certainly distinctive but not without ambiguity due to a large amount of 'unknowns' (N=148 or 19%). Urban areas registered 43% (N=266) of all homicides and the remaining 57% (N=350) occurred in rural areas. Consequently, alcohol-related homicide is more likely to occur in urban areas than non-alcohol-related homicide.

## Incident Characteristics

According to the categorisation of the DHM, the most common classification was ‘Partner killings’, which accounted for roughly 30% of the total number of cases. Partner killings include relationships between victim and offender at the time of the incident or prior to the incident. Two other predominant categories were ‘Other in non-criminal milieu’ (18.9%) regarding the victim-offender relationship and ‘Nightlife violence’ (13.1%). Other types of homicides occurred less frequently such as ‘Other familial killing’ (5.7%), ‘Criminal milieu’ (5.7%), ‘Killing by mentally disturbed’ (non-family) (5.7%) and ‘Sexual killing’ (4.1%). Homicide related to alcohol abuse involving child victims are very rare; in only 2.5 % of all cases were children killed and in 0.8% was an infant subject to violent victimisation.

Type of homicide	Non-alcohol-related		Alcohol-related	
	<i>N</i>	<i>Valid Percent</i>	<i>N</i>	<i>Valid Percent</i>
Partner killing	168	22.1	35	28.7
Child killing (in family)	27	3.5	3	2.5
Infanticide	23	3.0	1	0.8
Other familial killing	59	7.8	7	5.7
Criminal milieu	154	20.2	7	5.7
Robbery killing	58	10.1	3	2.5
Nightlife violence	--	--	16	13.1
Killing by mentally-disturbed (non-family)	24	3.2	7	5.7
Other in non-criminal milieu	101	13.3	23	18.9
Killing by children (non-family)	2	0.3	1	0.8
Sexual killing	13	1.7	5	4.1
Other	30	3.9	7	5.7
Unknown	99	13.0	7	5.7

Table 2. Type of homicide for non-alcohol-related homicide (N=764) and alcohol-related homicide (N=122), the Netherlands, 2010-2015

Although ‘Partner killings’ also represented the largest grouping of cases in the non-alcohol-associated population (N=168 or 22%), they were, however, almost identical to the number of killings in the criminal milieu (N=154 or 20%). The next most common type of homicide was

classified as 'Other in non-criminal milieu' (N=101 or 13%). 'Nightlife violence' was not present in this population at all. Thus, it can be concluded that nightlife violence is a certain indicator for alcohol-associated homicides in the years 2010 to 2015. In addition, homicide in the criminal milieu is much less likely to occur under the influence of alcohol (5.7%) than compared to the non-alcohol related population (20%).

a) Time

From a seasonal perspective, the majority of alcohol-related homicides in the period 2010-2015 occurred in Winter (December to February) and Summer (June to August) (N= 57.3%). The months January and June recorded the highest rate of homicide, each with 12.3%, while April and November recorded the lowest rate, each with 4.1%.

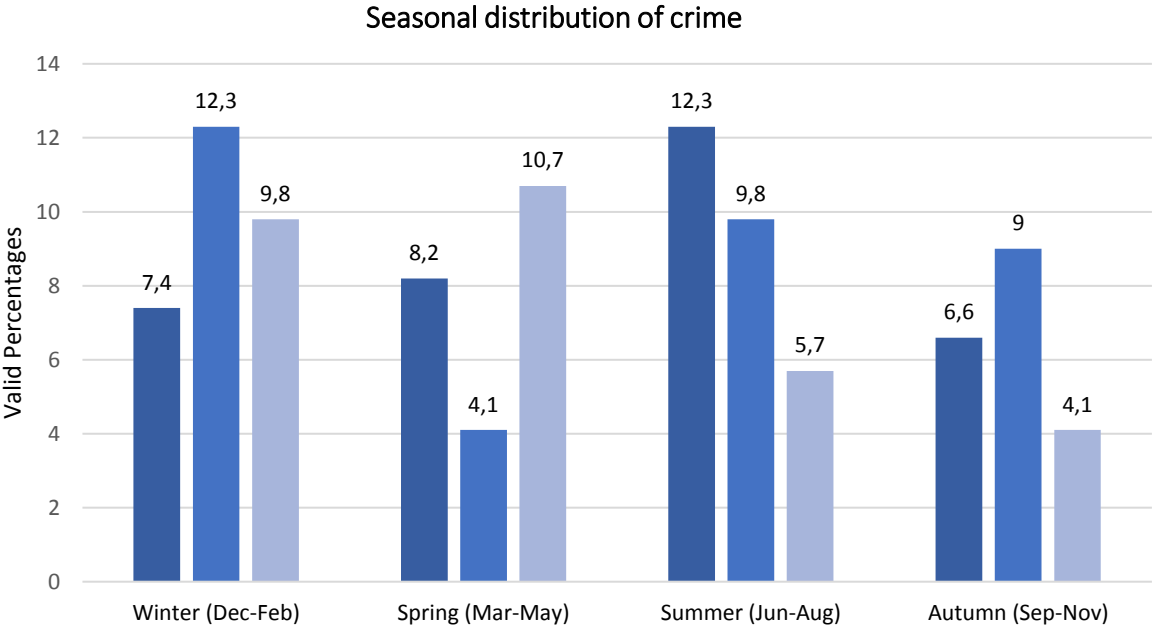


Figure 2. Seasonal distribution of crime of alcohol-related homicide (N=122), the Netherlands, 2010-2015

The non-alcohol-related population shows more equal distribution of homicide than compared to alcohol-related population. The likelihood of homicide seems unrelated to the season, because roughly one fourth all homicides occurred each season (ranging from 24 to 26%).

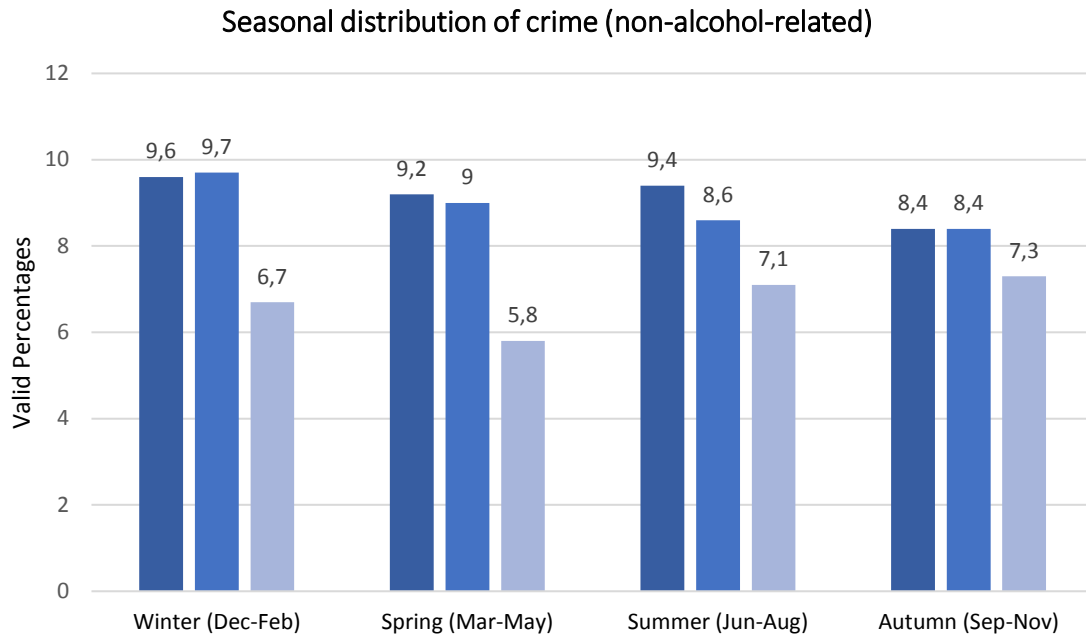


Figure 3. Seasonal distribution of crime of non-alcohol-related homicide (N=764), the Netherlands, 2010-2015

Furthermore, more than half of all cases occurred on weekends (N=43.5%), thereof 23.8% on Saturdays, 19.7% on Sundays and the remaining 9.8% on Fridays. Monday was the least prominent weekday with only 9%, followed by Tuesday and Wednesday with 10.7%. Thursdays proved to be the most deadly weekday, with 16.4% of all homicides registered.

The weekend was less prevalent in the non-alcohol-related group (N=29%). Moreover, homicides were equally spread across the weekends with around 14% on each weekend day. Most homicides were committed on Wednesdays (16.4%) and Tuesday accounted for the least amount of homicides (10.9%).

Regarding the time, it is unfortunate that nearly half all the cases (47.5%) could be attributed to specific time slots during the day. For the remaining known cases (52.5%) as shown in figure 4, evening and night-time are the most frequent periods for alcohol-associated homicide with 34% and 42% respectively.

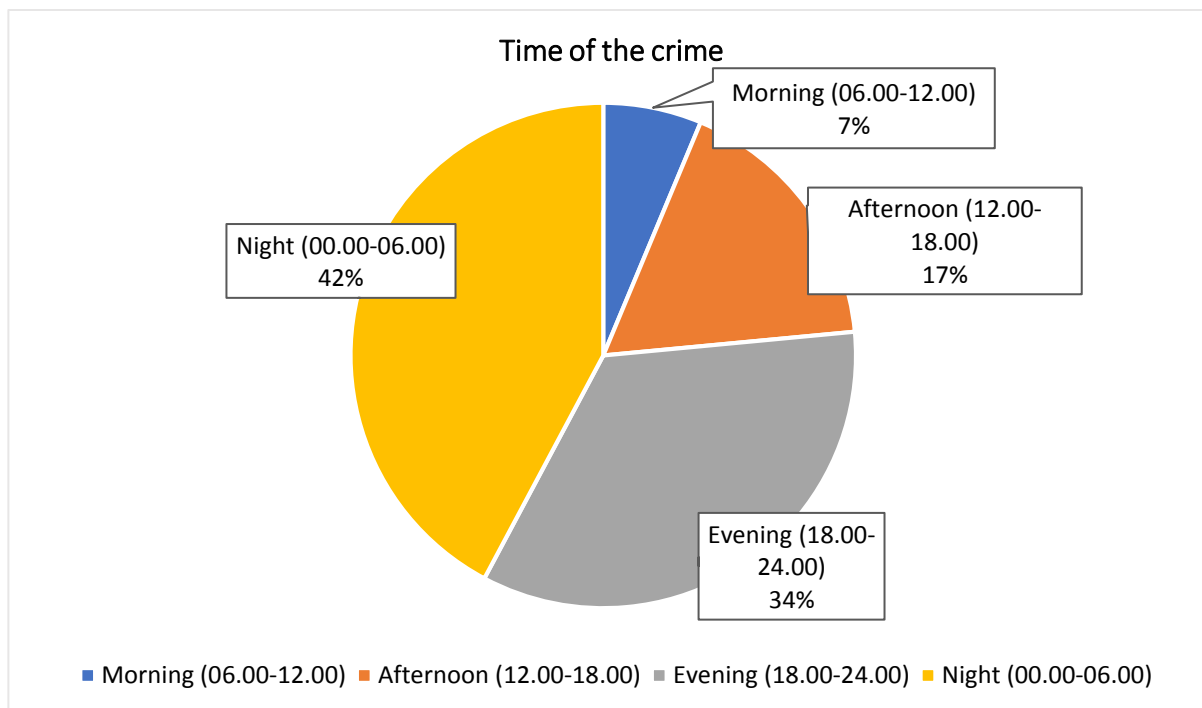


Figure 4. Seasonal distribution of crime of alcohol-related homicide (N=122), the Netherlands, 2010-2015

In contrast, most crimes occurred in the evening (11.4%), closely followed by the afternoon (11%) and night-time (9.9%) in the non-alcohol-associated population as shown in figure 5, but 61% remained unknown. Morning was less prevalent by 6.2%. Hence, alcohol-related homicide generally occurs later during the day or at night-time in juxtaposition to non-alcohol-related homicides.

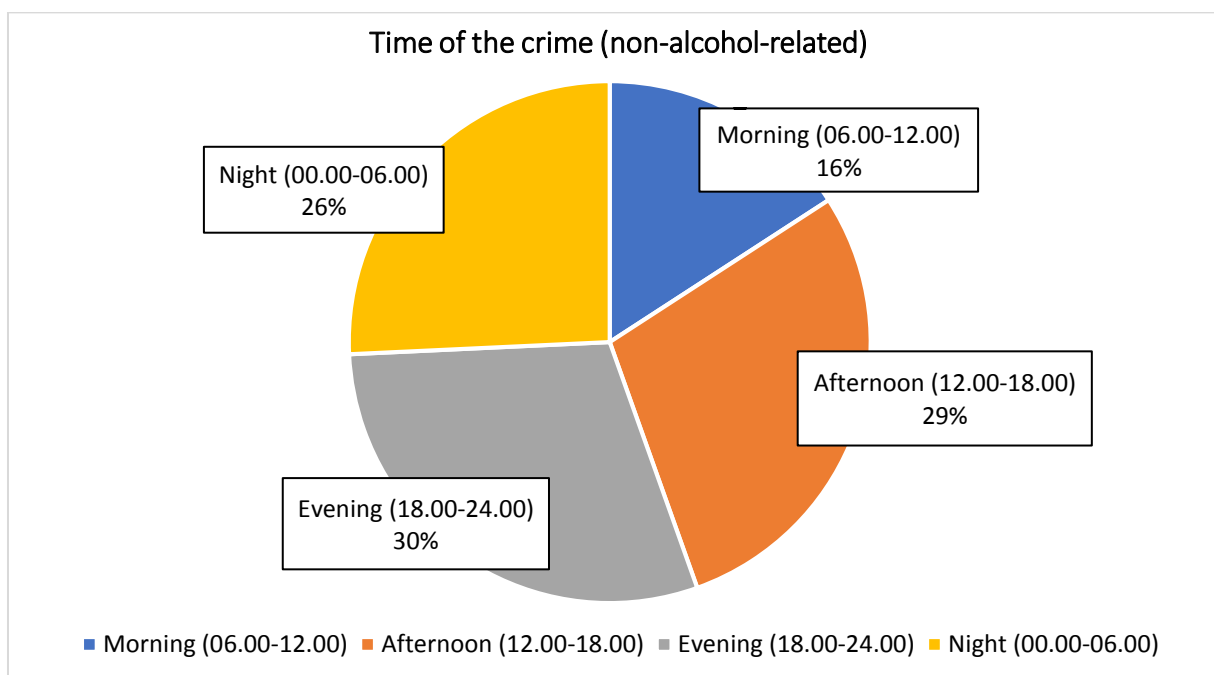


Figure 5. Seasonal distribution of crime of non-alcohol-related homicide (N=764), the Netherlands, 2010-2015

## b) Location

The large majority of homicide cases occurred in residential settings (N= 58.2%), whereof nearly 20% of the cases took place at the private home of the victim, while 23% occurred in the shared private home of the victim and perpetrator and 10% took place in the private home of the perpetrator.

The remaining cases (36.8%) were committed in public places such as a street, park or on public transportation. Other public places pertain to shops, restaurants or other places of amusement, accounting for 4.1% of the total. The remaining 5% could not be clearly attributed to a certain location.

Figure 6 below compares the location of crime scenes between homicides that occurred under the influence of alcohol and homicides that were committed without such impairment. It is evident that the common private home of the victim and the perpetrator is more often subject to alcohol-affiliated homicides (23%) than non-alcohol-affiliated homicides (16.8%). The same applies to public places, such as a street, road or public transportation (31.1% respectively 26.8%). However, the killing of the victim in his or her own home is more frequent among homicides that were not related to prior alcohol intoxication (22.5%) than those who were (18.9%). On the other hand, homicides occurring in the private home of the offender are more prevalent among homicides where at least one person of the fatal relationship was intoxicated at the time of the incident (9.8% respectively 5.1%).

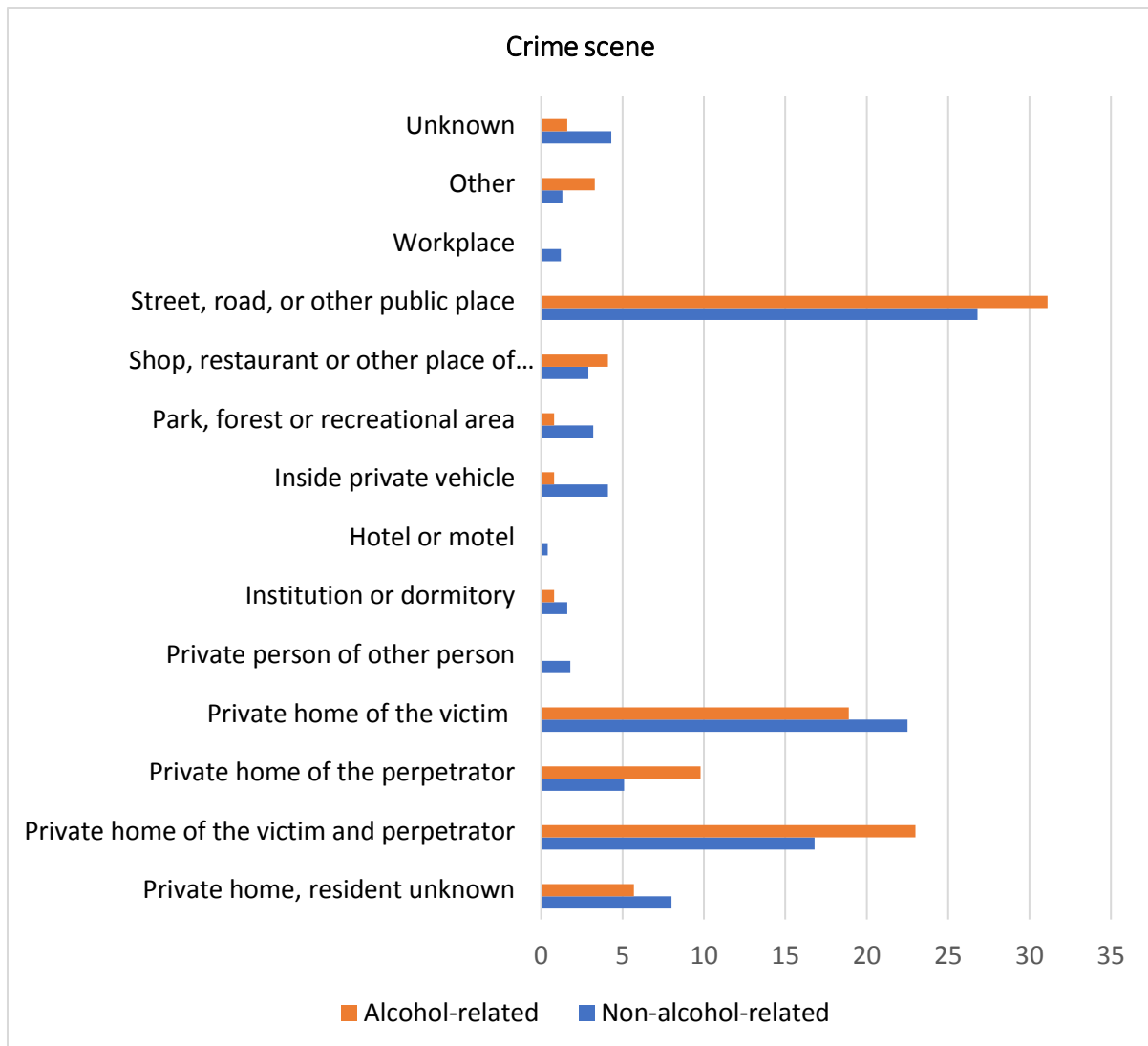


Figure 6. Crime scene of non-alcohol-related homicide (N=764) and alcohol-related homicide (N=122), the Netherlands, 2010-2015

### c) Modus Operandus

As depicted in table 3 below, in almost 50% of all alcohol-related cases the perpetrator used a knife or other sharp object as the primary lethal weapon to kill the victim. This sort of weapon was only used in approximately 30% all of cases in the comparison group. A contrasting pattern was noted in homicides involving the use of a firearm, accounting for more than one third of all non-alcohol-related cases. Owing to the fact that a firearm was only used in 12% of the reported cases in the alcohol-related group, it can be deduced that firearms are by far more prevalent among non-alcohol-related homicides (32%). The prevalence of hanging, strangulation or suffocation was almost equally distributed among alcohol-related homicides (10%) and non-alcohol-related homicides (12%). Regarding the use of physical violence in the alcohol-associated group, such as hitting or kicking, this sort of violence occurred almost twice

as often (16%) as in the other group (7%). Poisoning, smoke or fire, push or shove, motor vehicle, or bomb or explosives were listed far less often to commit murder in both groups of comparison.

Type of violence	Alcohol-related		Non-alcohol-related	
	<i>N</i>	<i>Valid Percent</i>	<i>N</i>	<i>Valid Percent</i>
Poisoning	1	0.8	2	0.3
Hanging/Strangulation/Suffocation	12	9.8	91	11.9
Drowning	--	--	2	0.3
Firearm	14	11.5	243	31.9
Bomb or explosive	--	--	2	0.3
Smoke or fire	1	0.8	7	0.9
Knife or sharp object/weapon	60	49.2	222	29.1
Blunt object	5	4.1	39	5.1
Push or shove	1	0.8	5	0.7
Motor vehicle	7	5.7	16	2.1
Hitting, kicking or other similar physical violence without weapon	19	15.6	52	6.8
Other	--	--	5	0.7
Unknown	2	1.6	70	9.2

Table 3. Type of violence for non-alcohol-related homicide (N=764) and alcohol-related homicide (N=122), the Netherlands, 2010-2015

## Offender Characteristics

### d) Gender

Among the total figure of intoxicated offenders (N=125), the vast majority was male with 88.8%. Only 9.6% was female and 1.5% remained unknown. The non-alcohol-affiliated population had a similar gender distribution, apart from the fact that slightly less males constituted offenders (68%), but the number of 'unknowns' was also considerably higher (13%).

### e) Age

The age range of perpetrators in the alcohol-associated population stretched from 16 to 66 years – mostly accumulating in the age group 20-30 with 31.2%. However, the age group 31-40 amassed almost the same amount of all offenders that were under the influence of alcohol during their crime with 27.2%. While the age group 16-18 (no 19-year-olds) only accounted for a total of 6.4% of all offenders, the 41 to 50-year-olds were composed of considerable 22.4% of the total number of offenders. Most offenders (N=6.4% or 8) of the total population were 29 years old when they committed homicide. Above the age of 51 to 66, the rate dropped significantly to 11.2%. For the period 2010-2015, the average age of the perpetrator was 35.5 years.

Below the age of 30, the age distribution is quite similar between both groups. After the age of 30, however, the number of intoxicated offenders is significantly higher than compared to non-intoxicated offenders. In other words, offenders who are under the influence of alcohol tend to kill at a later age than compared to non-intoxicated offenders. This is further reflected in the average age of non-intoxicated offenders, which was 29 years.

### f) Country of Birth

The majority of inebriated perpetrators constituted of individuals who were born in the Netherlands by roughly two thirds of the total population. 11.2% could not be determined and 28% were born outside of the Netherlands. It is important to note that the birth country does not equal citizenship or nationality, which was rarely filled in the DHM, thus birth country serves as an implicit rather than explicit indicator for citizenship or nationality now.

Among those born outside the Netherlands (28%), almost 5% are of Surinamese origin, 4% from the Netherlands Antilles, and Poland and Turkey accounted for respectively 3.2% of all perpetrators. Other countries of origin with only 0.8% (= 1 individual) were Egypt, Belgium, Hungary, Cuba, Colombia, Morocco, Ghana, Cape Verde, Somalia, Lithuania, Czech, Iraq, Azerbaijan and Jamaica.

In comparison, intoxicated offenders were predominantly born in the Netherlands as opposed to non-intoxicated ones. This assumption is, however, vague due to the fact that the birth country of one third of all non-intoxicated offenders remained indeterminable.

The table below summarises the offender characteristics for both alcohol- and non-alcohol-related homicides in the Netherlands between 2010 and 2015.

Offender Characteristics		Non-alcohol-related		Alcohol-related	
		<i>N</i>	<i>Valid Percent</i>	<i>N</i>	<i>Valid Percent</i>
<i>Gender</i>					
	Male	719	67.7	111	88.8
	Female	101	10.8	12	9.6
	Unknown	118	12.6	2	1.6
<i>Age</i>					
	≤15 years	7	0.7	--	--
	16-19 years	46	4.9	8	6.4
	20-30 years	302	32.1	39	31.2
	31-40 years	185	19.6	32	27.2
	41-50 years	159	16.9	28	22.4
	51-66 years	78	8.1	15	11.2
	≥67 years	12	1.2	--	--
	Unknown	156	16.5	4	3.2
<i>Country of Birth</i>					
	The Netherlands	371	39.7	76	60.8
	Other country	270	28.1	35	39.2
	Unknown	304	32.2	14	11.2
Total		945	100	125	100

Table 4. Offender characteristics for non-alcohol-related homicide (N=945) and alcohol-related homicide (N=125), the Netherlands, 2010-2015

## Victim Characteristics

### g) Gender

In comparison to the number of inebriated perpetrators (N=125), the number of inebriated victims was considerably lower (N=69). Meanwhile, the gender distribution among victims is significantly different as compared to the group of offenders. Within the victim group, there were twice as many female victims (24.6%) as opposed to female perpetrators (9.6%). Furthermore, there are slightly more female victims in the non-alcohol-affiliated population (35%) than in the alcohol-affiliated one (25%).

### h) Age

The age of intoxicated victims ranged from 7 to 60 years. Hence, victims were generally younger than perpetrators. Furthermore, the age distribution was more equally spread across the middle-aged age groups as compared with the age distribution among offenders. The largest group was victimised between the ages of 21-30 by 27.3%. Subsequently, the age group 31-40 constituted 25.8% of all victims. An almost similar figure was found among the age group 41 to 50 with 24.5%. Lastly, 51 to 60-year-olds only accounted for 8.4% of all victims. Most victims were 43 years old when killed (N=8.7% or 6). On average, the age for alcohol-related victimisation was 34 years.

It is notable that alcohol-related victims are generally older than compared to non-alcohol-related victims, especially in the age group 21-40 years. This is a similar trend to offender group, where intoxicated offenders were older than non-intoxicated offenders. The average age was 39 years for non-alcohol-related victims.

### i) Country of Birth

About half of the alcohol-related victim population was born in the Netherlands (50.7%), which is considerably less than compared to the offender group (60.8%). However, the origin of approximately one third of all victims could not be determined (33.3%). Some victims were born in Poland (N=2) and Turkey (N=2), other countries such as Cuba, Colombia, Afghanistan, Cape Verde, Ireland, Latvia and Netherlands Antilles registered one victim respectively.

Similar to the offender distribution, intoxicated victims (50%) were frequently born in the Netherlands as opposed to non-intoxicated victims (35%). For both groups, however, a significant number of victims remain unknown regarding their country of birth.

The table below summarises the victim characteristics for both alcohol- and non-alcohol-related homicides in the Netherlands between 2010 and 2015.

Victim Characteristics		Non-alcohol-related		Alcohol-related	
		<i>N</i>	<i>Valid Percent</i>	<i>N</i>	<i>Valid Percent</i>
<i>Gender</i>					
	Male	524	64.7	52	75.4
	Female	279	34.4	17	24.6
	Unknown	2	0.2	--	--
<i>Age</i>					
	≤6 years	45	5.5	--	--
	7-17 years	49	4.7	4	7.1
	18-20 years	30	3.8	5	7.1
	21-30 years	198	20.5	19	27.3
	31-40 years	155	19.2	18	25.8
	41-50 years	168	20.7	17	24.5
	51-60 years	97	12.0	6	8.4
	≥61 years	54	6.4	--	--
	Unknown	7	0.9	--	--
<i>Country of Birth</i>					
	The Netherlands	277	35.4	35	50.7
	Other country	253	25.5	12	17.4
	Unknown	280	39.1	22	31.9
Total		810	100	69	100

Table 5. Victim characteristics for non-alcohol-related homicide (N=810) and alcohol-related homicide (N=69), the Netherlands, 2010-2015

To conclude, the findings a) to i) have demonstrated the distribution of alcohol-related homicide pertaining to incident, offender and victim characteristics in the Netherlands from 2010 to 2015. Moreover, these findings were contrasted with findings from non-alcohol-related homicides over the same period. The following chapter analyses these findings by means of past empirical research and theoretical background.

## Discussion

The following section reviews the main findings of this quantitative research and contrasts these with findings from previous studies – thereby keeping in mind that alcohol-related homicide has not yet received broad scholarly attention in Europe, or let alone in the Netherlands. More specifically, diverging results are discussed in this chapter. In case of discrepancies, explanations are provided based on the theoretical and empirical background as presented earlier. More importantly, the initial research question of to what extent routine activity framework can explain alcohol-related homicide in the Netherlands will finally be answered.

### Main epidemiological Findings

From an epidemiological perspective, Ganpat & Liem (2012) have found distinctive features of homicide in the Netherlands in the years 1992-2009, which were not specifically sorted by alcohol consumption. Based on their generic findings and the non-alcohol-related findings from the years 2010 to 2015 as presented in the previous chapter, some distinguishing findings of alcohol-related homicides are remarkable.

#### Incident characteristics

It has been confirmed that the majority of cases constitute of intimate partner homicide (30%) as compared to the general findings (20%). The prevailing crime scene, often the private home of the victim, perpetrator or their shared home, additionally reflects the fact that partner killings were predominant in the population. Furthermore, 'nightlife violence' (13.1%) among strangers or 'non-criminal milieu' (18.9%) was quite common. Hence, alcohol-affiliated homicide occurred most commonly between (estranged) intimate partners or between strangers who met for the first time during nightlife. While the *RAT* clearly delivers comprehensive evidence for the latter findings, it is somewhat difficult to explain the prevalence of partner killings in private settings through *RAT* alone. In particular, for alcohol-related partner killings, it would be imprudent to leave contextual factors, such as a violent partnership history, unconsidered (Kivivuori, Savolainen, & Danielsson, 2012).

### *Location*

In accordance to previous domestic findings, homicide was prevalent among the three largest cities of the Netherlands by roughly one fifth of the total amount, which is slightly less than compared to the general findings of homicide. However, Amsterdam was surprisingly not solely leading the city ranking of recorded homicides because Rotterdam accounted for the same amount of cases as Amsterdam. Moreover, alcohol-related homicide was roughly equally spread across urban (50%) as well as rural areas (50%) of the country. The nation-wide prevalence of homicide associated with drinking differs from the general distribution of homicide in the Netherlands where urban areas were agglomerations of homicide.

### *Modus Operandus*

In juxtaposition with the results by Ganpat & Liem (2012), half of the offenders in this study used a knife or sharp object (50%) to inflict lethal injuries upon their victims, which diverts from the primary modus operandi in the study from 2012, where mostly firearms (37%) and sharp instruments (34%) resulted in casualties. The findings of the non-alcohol-related population from 2010 to 2015 affirms the predominant use of firearms (32%) and sharp instruments (29%). The use of firearms only accounted for 11.5% of all cases in this study. The use of knives or other sharp objects as primary weapon suggests that the murder was not premeditated, but rather an act of impulsiveness triggered by alcohol consumption, which led the offender to resort to and misuse an otherwise 'harmless' and ordinary tool that is readily available and accessible in most households. In addition, a knife or sharp object is less of a life-threatening weapon than compared to a gunshot wound, which is statistically speaking the one of the most lethal weapons/injuries source. Thus, inflicted knife wounds that are not directly aimed at pivotal and vital body parts might be pleaded in mitigation in legal proceedings rather than murder with intent because of the absent motivation to deprive life. Ultimately, this would explain the frequent use of potentially less life-endangering weapons in homicides related to alcohol consumption.

## Offender and Victim Characteristics

### *Gender*

The research yielded the expected outcome of male dominance in both offender and victim populations because of prevailing male-to-male violent behaviour. While offenders were typically male (88.8%), a slightly larger proportion of victims were reportedly female (24%) as compared to the female proportion in offenders (9.6%). The gender prevalence is in alignment with domestic and international studies (Ganpat & Liem, 2012; Bye, 2008; Lehti & Kivivuori, 2005; Kuhns, Wilson, Clodfelter, Maguire, & Ainsworth, 2010).

### *Country of Birth*

About half of the victims and even more offenders were born in the Netherlands. These findings, however, have to be interpreted with great caution due to large amounts of missing information and apart from that inadequate conclusions pertaining to nationality, citizenship or ethnicity. Previous studies have shown that ethnic minorities constitute a significant group among offender and victim populations for alcohol-affiliated homicide (Weiss, Testa, & Santos, 2018). Furthermore, cultural expectancy when under the influence of alcohol (Room, Babor, & Rehm, 2005), but also general cultural inclination towards violence (Kivivuori, Savolainen, & Danielsson, 2012) seem to be a determining factor for resorting to violent instead of tempered behaviour.

### *Age*

In terms of age distribution, the found age range indicated that alcohol-related lethal violence is not necessarily dominated by younger age groups (20-25 years), but in fact more prevalent among young and middle-aged men (20-40 years). This found association between middle-aged men and homicide due to intoxication was unexpected to the extent that *RAT* and previous studies on homicide assume that alcohol-related homicide is a phenomenon involving mainly young adults on both parts. The non-alcohol-related findings between 2010 and 2015 have also confirmed that both victims and offenders are younger on average.

The question arises of why perpetrators and victims in the Netherlands are generally older than compared to the global average age of alcohol-related offending and victimisation? One

possible explanation pertains to drinking behaviour and pattern. Alcohol dependence is often the result of social frustration that is associated with the aging process (World Health Organization, 2014). The accumulation of life experience increases the chances of personal failures pertaining to unemployment, economic grievances, partnership separation, or overall life dissatisfaction (Kivivuori, Savolainen, & Danielsson, 2012). In the Netherlands, a prosperous country with low youth unemployment and flourishing future prospects for its adolescence population (Ganpat & Liem, 2012; World Health Organization, 2016), drinking among young people can be categorised as ubiquitous and pleasure-oriented rather than as a violence-associated lifestyle (Eisner, 2002). While the same certainly applies to other age groups alike, for a small and marginalised fraction of Dutch society, drinking, and thereby similar to other drug substance abuse, seems to be the last resort to escape rough patches in life. Thus, middle-aged people, especially when facing alcohol dependence, 'drink to forget' instead of engaging in social behaviour and are thus more prone for intoxication-oriented drinking patterns that have been proven more fatal in some instances (Pridemore, 2016).

In conclusion, it appears reasonable to hypothesise that alcohol-related homicide in the Netherlands is a fringe phenomenon, which predominantly affects middle-aged men who suffer from alcohol dependence with intoxication-oriented drinking patterns that might result in lethal violence.

The observation that alcohol-affiliated homicide in the Netherlands is a fringe phenomenon is further supported by alcohol consumption rates. Dutch alcohol consumption, and the overall alcohol consumption in Central-western Europe, is below the European average (World Health Organization, 2016). The Dutch adult per capita alcohol consumption rate is in fact the lowest within the Central-European region (World Health Organization, 2016). According to the WHO, "a large proportion of beer and wine as the preferred beverages, and by drinking both with and outside of meals in a relatively frequent style" (World Health Organization, 2016, p. 4) is the commonly characterised drinking style of Central-western European countries.

In addition, the rates for alcohol consumption in Central-western Europe have been steadily decreasing since 1990 (World Health Organization, 2016). The same applies to detrimental drinking patterns, which are in regression (World Health Organization, 2016). The Dutch

Institute for Alcohol Policy (STAP) released figures from the year 2016 stating that 10.5% of all men and 6.8% of all women aged above 12 years in Dutch society are heavy episodic drinkers<sup>12</sup>. The relatively low prevalence of detrimental drinking patterns within Dutch society can be ascribed to strict social control implemented by the Dutch government regarding the consumption of alcohol.

### Social Control: Dutch (Alcohol) Policy

The Dutch government pursues a strict alcohol policy in terms of regulating alcohol consumption on a societal level. Under the Alcohol Licensing and Catering Act (1964), statutory laws are enacted to regulate the selling and serving of alcohol. According to this act, only licensed premises, on and off-premises, are permitted to sell alcohol to individuals aged above 18 years. Petrol stations or kiosks are prohibited from selling alcoholic beverages altogether and supermarkets are only permitted to sell mildly alcoholic beverages, such as beer and wine. Strong alcoholic beverages, such as whiskey or vodka, are only available in strictly licensed and designated liquor stores. Moreover, minors (<18 years) can be punished with a fine<sup>13</sup> for public possession of alcohol. More importantly, public drunkenness resulting in public nuisance is a criminal offence according to the Dutch Criminal Code. The same applies to serving alcohol to an individual who is already intoxicated (Government of the Netherlands, 2017). In cases where alcohol outlets serve alcohol to minors, a fine<sup>14</sup> or suspension of their alcohol license can be imposed – as far as to prohibition. Minors, who are treated for alcohol intoxication in hospitals, have to be compulsorily referred to special care institutions, which follow-up on further treatment measures (STAP, n.d.).

As of July 1<sup>st</sup> 2017, alcohol and drug testing by police officers is mandatory for violent offenders with the aim of increasing sentences that were perpetrated under substance abuse (Government of the Netherlands, n.d.). This is a major improvement regarding this thesis's limitation in terms of under-representation of alcohol involvement in homicide cases. Thus,

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<sup>12</sup> For men, heavy episodic drinking is being defined as consuming at least 60 grams of pure alcohol weekly on one day. For women, it is at least 40 grams of pure alcohol weekly on one day (STAP, n.d.).

<sup>13</sup> 45€ for youngsters under the age of 16, otherwise 90€ for 16-year-olds and above (STAP, n.d.).

<sup>14</sup> A fine of 1,360€ can be imposed on supermarkets, liquor stores, hotels, restaurants or bars (STAP, n.d.).

alcohol-related homicide from the year 2017 henceforth is routinely recorded in the Netherlands, which promises representative and accurate results for future research.

Apart from restrictive alcohol availability, other measures are in place to tackle alcohol abuse in the Netherlands. For instance, time restricted alcohol advertising, school awareness projects, public health campaigns, raised excise duty on alcohol (+5.75% as of 2014), random testing while driving, and treatment-based options are available means to cut down on alcoholism (STAP, n.d.). Annually, 31,000 people are being treated for alcohol dependence in different treatment facilities across the country, varying from outpatient treatment as well as short-term or long-term clinical treatment (STAP, n.d.).

The strict law enforcement on alcohol consumption demonstrates a means of social control exercised by the Dutch government to ensure public safety. The fact that intimate partner homicide is frequent among alcohol-related homicide can be explained through the absence of social control in private settings. *SCT* can eventually explain the low prevalence of Dutch alcohol-related homicide in public places, but also other non-alcohol-related homicides, compared to other countries worldwide (Weiss, Testa, & Santos, 2018). The lower-than-common occurrence of violent victimisation in public spaces signals on the one hand guardianship derived from *RAT* and on the other hand strong social control by national authorities (*SCT*) promoting public safety, which encourages individuals to pursue a pleasure-oriented lifestyle (*LST*) in public. Hence, *RAT*, *SCT* and *LST* overlap and supplement each other in the public space.

This also corresponds to findings suggesting that strong and effective governance approaches generally reduce homicide rates by providing an outlet to settle disputes in order to avoid aggregated aggression (Weiss, Testa, & Santos, 2018). The general decline of homicide in Western countries, including the Netherlands, (Aebi & Linde, 2014; Kivivuori, Savolainen, & Danielsson, 2012) supports the hypothesis that countries with assertive governance structures are less prone for lethal violence as compared to countries with less developed governance structures because strong institutionalised rules and sanctioning in case of infringements.

## Routine Activity in the Dutch context

On the one hand, *RAT* was a profoundly convincing framework to explain the various situational mechanisms that facilitate alcohol-associated homicide and contributed immensely to the identification of the population of interest by theory driven search for variables, such as nightlife violence, and the establishment of proxy indicators.

On the other hand, *RAT* was insufficient to the extent that some of the yielded results are not in alignment with the expected outcome as hypothesised by theory. There are some shortcomings regarding premeditated homicide, because it lacks consideration for contextual factors such as previous relationship history between victim and perpetrator. Given the prevalence of partner killings among the findings, it would be incongruous to explain intimate partner homicide only with situational factors without any regard for other factors. *RAT* further posits that population-dense public spaces, such as drinking establishments, are prone for alcohol-related homicide. However, the majority of homicides were perpetrated in private homes of either victim, perpetrator or their shared home. According to Ganpat & Liem (2012), only 8% of the total amount of homicides have been committed in public places such as cafes, restaurants or bars.

This hints at the fact that off-premise drinking, such as home drinking, is prevalent among the small fraction of society who killed while being drunk. Furthermore, home drinking is considered less expensive and implies less exposure to society rather than going out for drinks, which reinforces the assumption that marginalised people tend to consume alcohol predominantly at home. The Dutch Institute for Alcohol Policy (STAP) released figures from the year 2015 stating that more than of the total market share of alcohol sale accounts for supermarket sales (57.3%), liquor shops accounted for 16.4% and on- premise-sale was 26.3%. These figures demonstrate that off-premise drinking, such as home drinking are predominant in Dutch society, which explains the low prevalence of alcohol-related homicide in public places as examined in the previous chapter (STAP, n.d.).

Having said that, the framework can also be applied to private settings, where in fact the same intersecting circumstances lead up to the tragic event: the lack of guardianship, a motivated offender and a vulnerable target due to alcohol intoxication by at least one of them.

In addition, middle-aged age groups are almost as equally represented as young age groups among offenders and victims, which contradicts the proposed prevalence of young people as maintained by scholars promoting the routine activity approach for alcohol-related homicide, who presumably live on the fringe of society due to adverse circumstances such as unemployment, mental health issues, alcohol dependence or for other reasons.

To summarise, given the results of this study and its limited validity in terms of under-reporting, it can be concluded that alcohol-related homicide is not as prevalent in the Netherlands as compared to other countries in Europe where research has already been conducted. Eventually, only a small fraction of all homicide cases can be undoubtedly traced back to the solely and exclusively denominator of 'alcohol', but several other factors paired with inebriation, spearheaded by mental health issues and traumatic childhood experiences seem to contribute to the culmination of extreme violence. As mentioned in the beginning, most scholars assume an interplay of various factors facilitating homicide (Bye, 2012; Eisner, 2002; Hockin, Rogers, & Pridemore, 2018). As a reminder, the relationship of (lethal) violence and alcohol might be of spurious nature. Arguably, good overall governance, restrictive alcohol policy, well-developed education system, restrictive gun ownership legislation, and an effective criminal justice system can explain varying rates of homicide in the Netherlands as compared to less developed countries characterised by low social control and grave social inequality where homicide is more prominent (Weiss, Testa, & Santos, 2018). From a long-term perspective, homicide in general is decreasing in the Netherlands (Ganpat & Liem, 2012).

### Limitations and Future Research

The main limitation pertains to the under-coverage of alcohol involvement in homicide cases where investigating authorities clearly neglected to report on it. Consequently, the presence of alcohol was neither mentioned in court files nor coded in the DHM. Moreover, the exact volume of alcohol intake was indeterminable, which is regrettable to the extent that different levels of intoxication could not be distinguished within the population. The validity of this thesis is therefore limited due to the reliance of proxy indicators instead of straightforward and unambiguous indicators for alcohol involvement in the population. However, only a small fraction of the population consists of proxy cases (21 out of 122 cases). Moreover, the case

selection was carefully considered according to thorough search through manifold court files of homicides in the Netherlands from 2010 to 2015 and theoretical hypotheses derived from RAT. “What makes alcohol consumption a unique variable within the routine activity theory framework is that it isolates a specific behaviour” (Parker, McCaffree, Callanan, & Saltz, 2013, pp. 18-19).

European homicide research can only be advanced when homicide incidents and contextual circumstances are routinely recorded in order to not only further research but also advise public policy-makers or investigation authorities on approaches to curb homicide – the most severe type of crime –damaging social cohesion on a societal level largely. On an individual level, homicide often infiltrates lives of those who are left behind to an irreparable extent. In this sense, it is advisable to explicitly state in the investigation report whether substance abuse was applicable or not in order to determine the exact causal mechanisms for each deprived life. The under-reporting made it necessary to establish proxy indicators derived from theoretical assumptions about alcohol-related violence, which were, however, not predominant in the analysed population.

During the coding process, it became evident that alcohol abuse or dependence was often coupled with mental health issues or other impairments. In the DHM, schizophrenia, morbid disorder, lack of development of mental abilities or behavioural disorder appeared frequently together with alcohol abuse. It seems that these factors are inextricably linked in many cases and often reinforcing one another until the detrimental cycle erupts into the most violent behaviour imaginable. It has further been striking that these adverse circumstances in offender’s lives often relate back to traumatic childhood or adolescence experiences. Other scholars supporting a multi-factor approach in explaining the causes of homicide have confirmed this observation (Brookman, 2005; Bye, 2012). Hence, alcohol-related homicide is not exempted from the multi-factor approach. This can serve as a departure point for future research to explore the relationship of mental disabilities paired with alcohol consumption in respect of homicide in the Netherlands.

Another limitation of this research relates to the fact that many variables, especially those describing victim and offender characteristics were inadequately filled in in the DHM. For

instance, the relationship between victim and offender was often unclear. Furthermore, nationality, professional background or the general employment status would have been interesting to have explored in order to classify the perpetrator or victim's social status within society. In addition, the motive of the homicidal act remained overwhelmingly unknown, which might be first and foremost attributable to the intervening factor of 'alcohol' itself. With regard to the set time period and the language barrier, further information gathering could not be pursued.

## Conclusion

This thesis has provided an explorative and novel insight into the distribution of alcohol-related homicides in the Netherlands for the period 2010 to 2015. Apart from presenting epidemiological features of alcohol-related homicide regarding incident, perpetrator and victim characteristics, the found results have been analysed through routine activity lens and complemented by lifestyle and social control approach to paint a holistic picture of the phenomenon. The results have further been contrasted with findings from other national and international empirical studies and results from non-alcohol-related homicide over the same period of time in the Netherlands, to not only validate found associations, but more importantly, to discuss differences.

To summarise, it has been demonstrated that alcohol-related homicide is a fringe phenomenon in the Netherlands that affects mostly young and middle-aged men or (estranged) intimate partners, in urban as well as in rural areas. Most people were killed at private homes during evening or night-time. Another significant number of victims was found at public places such as roads, bars or parks. A knife or a sharp object inflicted the prevailing cause of the death.

Finally, *RAT* was a convincing theoretical foundation to demonstrate the situational mechanisms that are specific to alcohol-related homicide, but neglects consideration for contextual factors. This type of homicide is often not the outcome of long-planned intended murder, but rather an act of spontaneous outburst triggered by the psychopharmacological reaction inherent to alcohol. Moreover, *RAT* yields profound explanatory power for various conceivable scenarios particular to this sort of lethal violence. It covers scenarios that take place in private settings as well as public places where at least one of the individual was under the influence of alcohol. The main asset, however, pertains to the fact that *RAT* explains offending and victimisation alike through situational factors creating the opportunity for crime – even if neither victim nor perpetrator were intoxicated.

## Bibliography

- Aebi, M. F., & Linde, A. (2014). The persistence of lifestyles: Rates and correlates of homicide in Western Europe from 1960 to 2010. *European Journal of Criminology*, 11(5), 552-577. DOI: 10.1177/1477370814541178
- Andreuccetti, G., de Carvalho, H. B., Ponce, J. d., de Carvalho, D., Kahn, T., Muñoz, D. R., & Leyton, V. (2009). Alcohol consumption in homicide victims in the city of Sao Paulo. *Addiction*, 104(12), 1998-2006. DOI: 10.1111/j.1360-0443.2009.02716.x
- Bandura, A. (1978). Social Learning Theory of Aggression. *Journal of Communication*, 28(3), 12-29. DOI: 10.1111/j.1460-2466.1978.tb01621.x
- Brookman, F. (2005). *Understanding Homicide*. London: SAGE Publications. DOI: 10.4135/9781446216361
- Bryman, A. (2012). *Social Research Methods*. Oxford: Oxford University Press.
- Bye, E. K. (2008). Alcohol and Homicide in Eastern Europe. A Time Series Analysis of Six Countries. *Homicide Studies*, 12(1), 7-27. DOI: 10.1177/1088767907310851
- Bye, E. K. (2012). Alcohol and Homicide in Europe. In M. C. Liem, & W. A. Pridemore (Eds.), *Handbook of European Homicide Research. Patterns, Explanations, and Country Studies* (pp. 231-245). New York: Springer.
- Clark, John, Boccaccini, M. T., Caillouet, B., & Chaplin, W. (2007). Five Factor Model Personality Traits, Jury Selection, and Case Outcomes in Criminal and Civil Cases. *Criminal Justice and Behavior*, 34(5), 641-660. DOI: 10.1177/0093854806297555
- Cohen, L. E., & Felson M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 44(4), 588-608. DOI: 10.2307/2094589
- de Bont, R., & Liem, M. (2017). *Drug-Related Homicide in Europe. Part 1: Research report*. The Hague: Institute of Security and Global Affairs (ISGA). Retrieved from: [https://www.universiteitleiden.nl/binaries/content/assets/governance-and-global-affairs/isga/drug-related-homicide-in-europe\\_part-1.pdf](https://www.universiteitleiden.nl/binaries/content/assets/governance-and-global-affairs/isga/drug-related-homicide-in-europe_part-1.pdf)
- Eisner, M. (2002). Crime, Problem Drinking, and Drug Use: Patterns of Problem Behavior in Cross-National Perspective. *The ANNALS of the American Academy of Political and Social Science*, 508, 201-225. Retrieved from <http://www.jstor.org/stable/1049908>
- Ganpat, S. M., & Liem, M. C. (2012). Homicide in the Netherlands. In M. C. Liem, & W. A. Pridemore (Eds.), *Handbook of European homicide research: patterns, explanations, and country studies* (pp. 329-341). New York: Springer.

- Government of The Netherlands. (2017, June 28). *National roll-out of mandatory alcohol and drug testing for violent offenders from 1 July*. Retrieved from <https://www.government.nl/topics/alcohol/news/2017/06/28/national-roll-out-of-mandatory-alcohol-and-drug-testing-for-violent-offenders-from-1-july>
- Government of The Netherlands. (n.d.). *Preventing alcohol abuse and alcoholism*. Retrieved from <https://www.government.nl/topics/alcohol/preventing-alcohol-abuse-and-alcoholism>
- Hindelang, M. J., Gottfredson, M. R., & Garofalo, J. (1978). *Victims of personal crime: An empirical foundation for a theory of personal victimization*. Cambridge, MA: Ballinger.
- Hirschi, T., & Gottfredson M.R. (1995). Control Theory and the Life-course Perspective. *Studies on Crime and Crime Prevention* 4(2), 131–142. Retrieved from <http://psycnet.apa.org/record/1996-34555-001>
- Hockin, S., Rogers, M. L., & Pridemore, W. A. (2018). Population-level alcohol consumption and national homicide rates. *European Journal of Criminology*, 15(2), 235-252. DOI: 10.1177/1477370817731042
- Kanis, S., Messner, S. F., Eisner, M. P., & Heitmeyer, W. (2017). A Cautionary Note about the Use of Estimated Homicide Data for Cross-National Research. *Homicide Studies*, 21(4), 312-324. DOI: 10.1177/1088767917715670
- Kivivuori, J., Savolainen, J., & Danielsson, P. (2012). Theory and Explanation in Contemporary European Homicide Research. In M. Liem, & W. A. Pridemore (Eds.), *Handbook of European Homicide Research: Patterns, Explanations, and Country Studies* (pp. 95-109). New York: Springer.
- Kuhns, J. B., Wilson, D., Clodfelter, T. A., Maguire, E. R., & Ainsworth, S. A. (2010). A meta-analysis of alcohol toxicology study findings among homicide victims. *Addiction*, 106(1), 62-72. DOI: 10.1111/j.1360-0443.2010.03153.x
- Lehti, M., & Kivivuori, J. (2005). Alcohol-related violence as an explanation for the difference between homicide rates in Finland and the other Nordic countries. *Nordisk Alkohol- & Narkotikatidskrift*, 22, 7-24. Retrieved from <https://pdfs.semanticscholar.org/c97b/61810388d665156b74b49bee4a8e93305aae.pdf>

- Liem, M., & Pridemore, W. (2012). Introduction. In M. Liem, & W. Pridemore (Eds.), *Handbook of European Homicide Research: Patterns, Explanations, and Country Studies* (pp. 3-4). New York: Springer LLC.
- Liem, M., Ganpat, S., Granath, S., Hagstedt, J., Kivivuori, J., Lehti, M., & Nieuwbeerta, P. (2013). Homicide in Finland, the Netherlands, and Sweden: First Findings From the European Homicide Monitor. *Homicide Studies*, *17*(1), 75-95. DOI: 10.1177/1088767912452130
- Parker, R. N., McCaffree, K. J., Callanan, V., & Saltz, R. F. (2013). Alcohol and the Risk of Violent Victimization and Injury. In R. N. Parker, & McCaffree K.J., *Alcohol and Violence. The Nature of the Relationship and the Promise of Prevention* (pp. 13-29). Lanham: Lexington Books.
- Pridemore, W. A. (2016). Hazardous Drinking and Violent Mortality Among Males: Evidence from a Population- Based Case-Control Study. *Social Problems*, *63*(4), 573-589. DOI: 10.1093/socpro/spw018
- Pridemore, W. A., & Grubestic, T. H. (2013). Alcohol Outlets and Community Levels of Interpersonal Violence: Spatial Density, Outlet Type, and Seriousness of Assault. *Journal of Research in Crime and Delinquency*, *50*(1), 132-159. DOI: 10.1177/0022427810397952
- Ramstedt, M. (2011). Population drinking and homicide in Australia: A time series analysis of the period 1950–2003. *Drug and Alcohol Review*, *30*(5), 466-472. DOI: 10.1111/j.1465-3362.2011.00322.x
- Rehm, J., Kailasapillai, S., Larsen, E., Rehm, M. X., Samokhvalov, A. V., Shield, K., . . . Lachenmeier, D. W. (2014). A systematic review of the epidemiology of unrecorded alcohol consumption and the chemical composition of unrecorded alcohol. *Addiction*, *109*(6), 880–893. DOI: 10.1111/add.12498
- Room, R., Babor, T., & Rehm, J. (2005). Alcohol and public health. *The Lancet*, *365*(9458), 519-530. DOI: 10.1016/S0140-6736(05)17870-2
- Rossow, I., & Norström, T. (2011). The impact of small changes in bar closing hours on violence. The Norwegian experience from 18 cities. *Addiction*, *107*(3), 530-537. DOI: 10.1111/j.1360-0443.2011.03643.x
- Schreck, C. J., & Hirschi, T. (2009). Social Control Theory. In J. Mitchell Miller (Ed.), *21st Century Criminology: A Reference Handbook* (pp. 403-411). Los Angeles: SAGE Publications.

- Smit, P. R., de Jong, R. R., & Bijleveld, C. J. (2012). Homicide Data in Europe: Definitions, Sources, and Statistics. In M. C. Liem, & W. A. Pridemore (Eds.), *European Handbook of Homicide Research: Patterns, Explanations, and Country Studies* (pp. 5-23). New York: Springer LLC.
- STAP. (n.d.). *Facts and Figures*. Retrieved from STAP Dutch Institute for Alcohol Policy: <http://www.stap.nl/en/home/facts-and-figures.html>
- STAP. (n.d.). *Dutch Alcohol Policy*. Retrieved from STAP Dutch Institute for Alcohol Policy: <http://www.stap.nl/en/home/dutch-alcohol-policy.html>
- Swart, L.A., Seedat, M., & Nel, J. (2015). Alcohol consumption in adolescent homicide victims in the city of Johannesburg, South Africa. *Addiction*, *110*(4), 595-601. DOI: 10.1111/add.12825
- Weiss, D. B., Testa, A., & Santos, M. R. (2018). Hazardous Alcohol Drinking and Cross-National Homicide Rates: The Role of Demographic, Political, and Cultural Context. *Journal of Drug Issues*, *48*(2). 246-268. DOI: 10.1177/0022042617750579
- World Health Organization. (2014). *Global status report on alcohol and health 2014*. Geneva: World Health Organization. Retrieved from [http://apps.who.int/iris/bitstream/handle/10665/112736/9789240692763\\_eng.pdf;jsessionid=CB155EA2DBAEE8D94981A63F5BE80EE0?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/112736/9789240692763_eng.pdf;jsessionid=CB155EA2DBAEE8D94981A63F5BE80EE0?sequence=1)
- World Health Organization. (2016). *Public Health successes and missed opportunities. Trends in alcohol consumption and attributable mortality in the WHO European Region, 1990-2014*. Copenhagen: The Regional Office for Europe of the World Health Organization. Retrieved from <http://www.euro.who.int/en/health-topics/disease-prevention/alcohol-use/publications/2016/public-health-successes-and-missed-opportunities.-trends-in-alcohol-consumption-and-attributable-mortality-in-the-who-european-region,-19902014-2016>
- World Health Organization. (n.d.). *Data and statistics*. Retrieved from: <http://www.euro.who.int/en/health-topics/disease-prevention/alcohol-use/data-and-statistics>