



Patterns of Female Homicide Victimization in Western Europe

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Abstract

Recent years witnessed an increase in attention to femicide, or the killing of women because of their gender. Prior empirical studies have drawn attention to the prevalence of female homicide victimization, but most have been unable to give a detailed overview of the specific contexts in which women are killed, and to what extent female homicide victimization is unique, i.e., in that it differs from male victimization. This exploratory study aims, first, to map the nature and scope of female homicide in six European countries: Denmark, Finland, France, the Netherlands, Sweden and Switzerland; and, secondly, to compare female homicide victimization with male homicide victimization. Using data from a new uniform homicide recording system, the European Homicide Monitor, this study allowed for unique cross-country comparisons and a detailed breakdown by victim-offender relationship, and type of homicide. Results indicated that female homicide victimization rates remained relatively stable during the last decade, with a narrowing gender gap. Furthermore, results reflected substantial heterogeneity in the context in which women were victimized. Finally, female homicide victimization differs in many respects from male victimization, but overlaps do exist. Such heterogeneity, and possible overlaps with male victimization call for differential approaches.

Keywords Femicide · Female homicide · Victimization · The European Homicide Monitor

Introduction

Under the influence of the #MeToo movement, political and advocacy groups, recent years saw an upsurge in attention to female homicide victimization. Increasingly, female

homicides are referred to as *femicides*, or *feminicides*, broadly defined as the killing of women for their gender (Dawson & Vega, 2023; Taylor & Jasinski, 2011; United Nations, 2006; Vives-Cases et al., 2016; Weil et al., 2018). Femicides are believed to manifest a combination of misogyny, historical inequality between men and women, and the perception of women as male property (Liem, 2021; Radford & Russell, 1992). Its definition and operationalization are still heavily debated (Dawson & Carrigan, 2021; Walby, 2023), as ‘gender’ itself is a broad concept that refers to the socially constructed characteristics of women, men, girls and boys, that include norms, behaviors and roles (WHO, 2024). Multiple dimensions of ‘gender’ are relevant to the study of violence: sex of the victim, sex of the perpetrator, the relationship between perpetrator and victim, sexual aspect, and gender motivation (Walby, 2017, 2023). Existing work on femicide does not clearly identify which dimensions of gender are necessary to term a homicide a femicide. On the one hand, such fluidity (Walby, 2023) in applying the term ‘femicide’ has served to increase and direct attention to an important social problem with major personal, collateral and societal costs, and has engendered international

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legislative actions such as the Council of Europe (2014) Convention on preventing and combating violence against women and domestic violence (Istanbul Convention). On the other hand, from the point of view of research, its link to broader female homicide victimization calls for further attention. The increased use of the term *femicide* raises questions about the nature and scope of female homicide victimization, and the degree to which female homicide victimization is different from male homicide victimization. To date, most research on femicide has focused on a specific type—intimate partner femicide (Garcia-Vergara et al., 2022; Torrecilla et al., 2019; UNODC, 2019, 2023). Yet, the goal of mainstreaming gender in crime prevention, as defined in the United Nations Kyoto declaration, requires a broad picture of *all* circumstances in which women are killed (United Nations, 2021). In this exploratory study we aim to assess the nature and scope of female homicide victimization in six European countries—Denmark, Finland, France, the Netherlands, Sweden and Switzerland. Using individual-level data from a new homicide recording system, the European Homicide Monitor (EHM), we further seek to compare and contrast female homicide victimization to male homicide victimization.

Background

Comparing Male and Female Homicide Victimization

Globally, in countries with high homicide rates, male victims significantly outnumber females. In contrast, in countries with low homicide rates, male and females share a more evenly distributed risk of homicide (UNODC, 2023). Recent UNODC data further emphasize the overrepresentation of men among homicide victims, with 4 out of every 5 homicide victims being male. Even though men are overall much more likely to be killed in a homicide, across all global regions women and girls are disproportionately more likely to be killed by their (estranged) partner, parent or other family member. Conversely, men and boys are more at risk of being killed by someone outside their family (UNODC, 2023). Globally, trend analyses since 2000 reveal a steady and fairly simultaneous decline in the homicide rate among both genders, although for male victims this decline is considerably steeper than for female victims. In a comparison based on 166 countries, Montmagny et al. (2014) found a strong positive correlation between male and female homicide rates, indicating that the same social forces, particularly social inequalities, are at play in these two kinds of violence. At the same time, they found that certain variables were more closely related to female homicide, such as the percentage of women in the labor market and the fertility rate of teenagers.

Zooming in on Western countries, trend analyses in the United States suggest that male and female homicide victimization tends to vary similarly over time (Batton, 2004; LaFree & Hunnicutt, 2006; Marvell & Moody, 1999). Marvell and Moody (1999) have argued that these similarities are an indication that female and male trends are driven by the same forces. Homicide perpetrators, they hold, are similar, even though the victims and situations are not. When focusing on intimate partner homicides specifically, US similarities tend to disappear, with female rates decreasing in the past decades, and male rates declining at a somewhat faster pace (Dugan et al., 2003). A European study on intimate partner homicide showed that in the early 2010s both rates of female and male homicide victimization decreased, particularly in Finland, and to a somewhat lesser extent in Sweden and the Netherlands (Liem et al., 2018). In a recent analysis of European homicide trends, Suonpää et al. (2022) found that homicide rates among all demographic groups had either declined or remained low, but that the most dramatic drop took place among male victims. Rates of female homicide victimization were much lower, fluctuated considerably, but showed a slight decrease that was mostly related to a decline in the overall number of intimate partner and other family related homicides against women (Suonpää et al., 2022).

Several studies have assessed whether structural factors impact male and female homicide differently. Gender inequality, for example, has been found to be predictive of all violence, not just female victimization (Heirigs & Moore, 2018; Moore et al., 2021; Santos et al., 2021; Whaley & Messner, 2002). It has been suggested that this may be explained by men connecting their masculine identity with economic power (Whaley, 2001). From this perspective, men regard women's socioeconomic status increase as a potential threat to their masculinity and may use violence to maintain their status differential. Violence will be directed not only to women, but to anyone who threatens the perpetrator's social status (Moore et al., 2021). Other factors used to assess gender-specific homicide victimization include the role of alcohol (Parker, 1998), poverty and social disorganization (Batton, 2004; Schwartz, 2006a, 2006b), and factors such as age, marriage and household income (Lauritsen & Carbone-Lopez, 2011).

Pattern Differentials

The above discussed studies used rates or relative risks to explore female homicide victimization. However, routine activity approach would suggest that female victimization differs from male victimization not only in quantity but also regarding social contexts. Only a few prior studies have compared the social contexts of female and male homicide victimization. Pizarro et al. (2010) as well as

Walser et al. (2022) found that women are more likely to be killed by men who are older than those who kill other men. In the US context, women are less likely to be killed with firearms compared to men—which is probably a reflection of women being less likely than men to be killed in the context of street fights. However, in Switzerland, firearms are more often used in domestic context where mostly women are victims and less often present in other types of homicides (Walser et al., 2022). Other differences concern homicide location. Compared to male victims, women are less likely to be victimized in areas with low social disorganization. This, again, may reflect the fact that women are often killed in intimate partner homicides or other family homicides, which also take place in residential areas. Swiss findings were contrasted by a Finnish study comparing the patterns of intimate partner homicide against men and women with homicide against men and found that the involved persons were often socially marginalized and had substance abuse problems across homicide types (Kivivuori & Lehti, 2012). However, compared to male-to-male-homicides, intimate partner homicides against women had a weaker association with socioeconomic disadvantage, substance abuse, and offender's criminal history (see also Dobash et al., 2004).

In short, even though prior empirical studies have made significant steps in shedding light on female homicide victimization, most studies are based on populations in the United States, limiting generalizability across other global regions, such as Europe, characterized by different social, cultural, and economic contexts (Truong et al., 2022). Second, the bulk of prior empirical work has focused on intimate partner homicide as the main type of female homicide victimization (e.g., Toprak & Ersoy, 2017; Torrecilla et al., 2019)—neglecting other (domestic and non-domestic) contexts in which women may be victimized. This is also reflected in the current use of the term 'femicide': even though literally, it refers to the killing of women because of their gender, in practice the focus lies on intimate partner femicides. Perhaps as a result, it is generally assumed that women are only killed in the context of (former) intimate partner relationships, and hence, female homicide victimization tends to be explained by theories and factors associated with intimate partner violence. Further, available datasets (such as homicide data by the UNODC, World Bank World Development Indicators database, World Health Organization Global Health Observatory, and World Health Organization Mortality Database) tend to suffer from a lack of detail due to the aggregate nature of the data. This inhibits obtaining a clear overview of the types and contexts of female homicide victimization and prevents us from knowing to what extent female victimization differs from male victimization.

Aim

This study seeks to fill this vacuum by assessing the nature and scope of homicide against females in six European countries: Denmark, Finland, France, the Netherlands, Sweden and Switzerland; and, secondly, to compare female homicide victimization with male homicide victimization, both in terms of rates, recent trends, and disaggregated incident patterns.

In criminology, there are at least three basic ways to delimit the focal outcome of interest: offender motive, victim–offender relationship (intimate partner homicide) and victim gender (homicide against women). Here we opt for the latter because our research goal is to canvass the heterogeneity of homicide against women among the six countries. Furthermore, despite the use of the term in policy and advocacy work, we consider the notion of femicide as lacking a consistent definition that can be used in empirical homicide research. It is often quite difficult or impossible to determine the motive of the offender. We also believe that core analytic terms should be low inference descriptors, rather than leaning immanently towards specific theoretical explanations or policy agendas. Hence, in what follows, we will be talking about female homicide.

Research Context

The six countries included in this study are European member countries of the Organization for Economic Cooperation and Development (OECD) with relatively low levels of income inequality. In addition, the Global Gender Gap Index, a composite index reflecting economic participation and opportunity, educational attainment, health and survival, and political empowerment indicates that these Western and Northern European countries score over or around the European average (0.763), where Finland (0.863) has the highest levels, followed by Sweden (0.815), Switzerland (0.783), Denmark (0.780), the Netherlands (0.777), and France (0.756) (World Economic Forum, 2021).

From a global perspective, all six countries have very low homicide rates. On a regional level, however, important differences exist. Denmark, the Netherlands and Switzerland show the lowest homicide levels (about 0.6 to 0.8 per 100,000), Sweden somewhat higher levels (0.9), while France (1.2, UNODC 2023) and Finland (1.3) experiences the highest levels of the countries included (for a detailed discussion, see Suonpää et al., 2022). Countries further differ in the degree of firearm ownership, which is relatively high in Finland, Switzerland, Sweden and France (27.8, 27.6, 19.7 and 19.6, respectively, registered civilian firearms per 100 individuals), and lower in Denmark (6 registered civilian firearms per 100 individuals) and in the Netherlands

(1.2 registered civilian firearms per 100 individuals) (Karp, 2018).

Methodology

The EHM

Due to differences in definitions, data sources and criminal justice procedures, comparing homicides between European countries is not without problems (Liem & Pridemore, 2012). To overcome these limitations, we rely on data based on a relatively new uniform homicide recording system, the EHM. The EHM began as a three-year pilot project financed by the European Union in 2009 (Granath et al., 2011). The aim was to create a comparable dataset based on the national homicide monitors of Sweden, the Netherlands and Finland and produce a mutual coding manual that could be easily adopted by others interested in scientific homicide data collecting. In recent years, Denmark, Switzerland and France have joined this European initiative, so that currently we are able to give detailed homicide data from six European countries, allowing us to distinguish by type of homicide (see, for example, Krüsselmann et al., forthcoming; Liem et al., 2013, 2018; Suonpää et al., 2022; Langlade & Larchet, 2023), and conduct analyses on the case, offender, and victim level. In this contribution, our focus lies on female homicide victims.

The idea of EHM is to give standardized comparability for countries and areas to compare their homicide patterns and to enable individual and incident level analysis. The architecture of the EHM is based on three main principles. First, the EHM is a general homicide monitor. It includes all types of victims and incidents. This is a considerable asset since it allows analysts to compare different homicide types. In doing so, they utilize the second major capability of the EHM, namely the possibility to disaggregate overall homicide patterns and trends. This helps researchers to specify which sub-types of homicide account for possible general patterns such as national differentials and even cross-national trends. Using the EHM, researchers can compare patterns of female homicide victimization in various countries, and female homicide victims can also be compared to their male counterparts. Third, the EHM system is open: new countries can join by using the original or short version of the manual (Granath et al., 2011, 2021).

Data

In the EHM, we define homicide as an intentional criminal act of violence by one or more human beings resulting in the death of one or more other human beings. This definition covers similar legal codes for homicide in each of the countries studied and roughly covers the definition used in other

multisite datasets such as the Center for Disease Control and Prevention (CDC) and its National Violent Death Reporting System (NVDRS). In Denmark, Finland, France, the Netherlands, Sweden and Switzerland the definition covers the legal codes of murder, manslaughter, infanticide, and assault leading to death (except for Switzerland, where assaults leading to death are legally qualified as serious assaults and thus not considered homicides). Attempted homicides, suicides, abortion, euthanasia, and assistance with suicide are not included in the data. Neither are cases of involuntary manslaughter by, for example, drunk driving, nor cases of legally justified killings such as self-defense or state necessity. Here, Switzerland and Denmark constitute an exception, as legally justified killings are included in homicide counts, yet are very rare.

In Denmark, individual-level data on homicides covers the years 2011–2016, and are maintained at The Department of Forensic Medicine, Aarhus University. The data are based on autopsy reports, initial police reports, crime scene photos, and other documents that accompanied the overall autopsy files, as well as media reports (Thomsen, 2019). Cases were verified by police and court data. These data sources provided information on all victim characteristics, most incident characteristics, but only partial offender characteristics.

Finnish homicide data is available for the years 2011–2018 and has been created by the Institute of Criminology and Legal Policy at the University of Helsinki (ICLP), the National Police Board, and the Police University College into the Finnish Homicide Monitor (FHM). The FHM is based on information produced during preliminary police investigations and collected directly by the chief investigator on a compulsory standard electronic form. For crimes that are not cleared within a reasonable amount of time, the available data are registered about one year after the initiation of the investigation, provided that the case is still being classified as a probable homicide. The FHM contains a great number of detailed variables related to victim, offender and case characteristics, including external data on prior criminal court convictions of perpetrators and victims, and court rulings.

French homicide data is available for the years 2019–2021 and has been gathered by the Division of Criminological Research (DCR) attached to the National Directorate of Judicial Police (DNPJ). The DCR used operational information (files, criminal archives, notes, autopsies, etc.) to produce detailed data on homicides committed in France (including overseas territories).

Homicide data from The Netherlands covers the years 2011–2020 and stems from three sources: Media reports, police data and court files. Media reports on homicides are retrieved from the Dutch Associated Press and LexisNexis. These reports are completed and verified with digitalized National Police data on homicide events. Homicide data is

completed and verified by assessing hard-copy court files that include the criminal proceedings of the case, police interrogation reports and, in various cases, forensic mental health reports.

Homicide data from Sweden is collated by the Swedish National Council for Crime Prevention (for the years 2011–2017), and the Karolinska Institute and Stockholm Health Care (for the years 2018–2019). All assessments of cases are based on police files, the verdicts from the court (if a trial has been carried out) and records of a forensic psychiatric examination when such an examination had been carried out. In short, the data contains a large number of variables with individual-level information on case, victim, and offender factors, providing possibilities for disaggregated analyses of female homicide victimization.

Finally, the Swiss Homicide Project at the University of St. Gallen gathers information on homicide cases through the cantonal public prosecution offices and court files. Cases are included if they apply to the legal codes of intentional homicide, murder, manslaughter, homicide at the request of the victim and infanticide. Legitimate killings are included, whereas assaults leading to death are excluded. For this study, detailed and disaggregated data on victims, offenders and homicide incidents are available from 2011 to 2014.

Analyses

To assess the nature and scope of female and male homicides, we first calculated the gender-specific homicide victimization rate per year. In doing so, we relied on total population size per year for males and females, respectively. Next, we conducted two types of analyses in which female homicide characteristics were compared to male homicide characteristics.

The first type of analysis is on an individual (victim) level. We examined the age of female and male victims as well as the age of the perpetrators involved in the homicide of the female and male victims. Victim and perpetrator age was grouped into the following categories: Children (0–14), youths / young adults (15–29), working age (30–49 and 50–64), and older population (65 <).

The second type of analysis is on a case level. Since homicide cases can involve multiple victims, we selected the principal victim to conduct incident-level analyses. The principal victim is defined as the victim with the closest relationship to the perpetrator. If the victim and perpetrator are equally close, the victim that died first is selected. If this information is not available, the principal victim was randomly chosen (Granath et al., 2011). The Finnish data deviate from this pattern, as the data are originally connected as victim-level. In the Finnish data, each victim constitutes its own case (e.g., family related homicide of the offender's wife and two children would result to three homicide

cases). However, the determination of the relationship of the offender and victim follows the principles of the EHM, and therefore we can compare the characteristics of homicides against women with homicides against men. In Denmark, France, The Netherlands, Sweden and Switzerland, the following variables were calculated on a case level:

Gender of the Perpetrator

To conduct this analysis, and to overcome the fact that in some cases multiple perpetrators are found, the gender of the principal perpetrator of each case was selected. The principal perpetrator is defined as the perpetrator who had taken the initiative for the violent act/had used most violence—or when arrest and prosecution followed, the principal perpetrator was defined as the individual who had been prosecuted for the homicide. If more than one perpetrator was prosecuted, then the principal perpetrator was the one receiving the most severe sanction. If sanctions were equal, then the perpetrator with the closest relationship to the victim was identified as the principal perpetrator. If this information was not available, or if the perpetrators were equally close to the principal victim, then the principal perpetrator was randomly selected (see also Granath et al., 2011). The gender of the perpetrator was identified as unknown for unsolved cases, i.e., cases for which there was no suspect known to the police or prosecuted for the homicide.

Number of Victims and Perpetrators

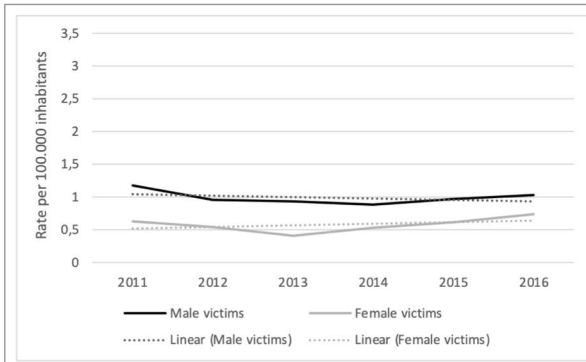
A comparison was made between cases with a single victim and perpetrator and with multiple victims and perpetrators. Although the Finnish and French dataset is victim-based, it contains information about the number of the perpetrators, and whether multiple victims were killed during the incident.

Crime Scene

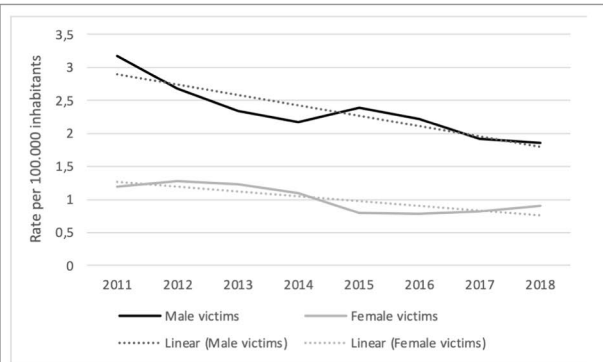
A differentiation was made between public and private locations. A public place entails the homicide that took place in public locations such as parks, forests, recreational areas, shops, restaurants, bars, streets, public transportation or the workplace. A private location includes the private home of the victim or offender, a hotel, motel, dormitory or car.

Type of Homicide

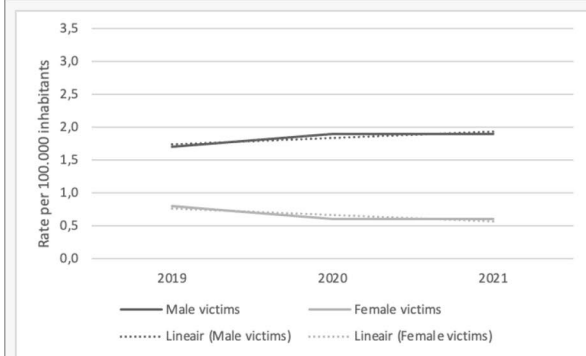
Homicide is categorized according to a combination of victim-offender relationship and homicide motive (see also Granath et al., 2011). In case there was an overlap between subtypes—for example, an uncle killing his niece after sexually abusing her—the familial relationship between victim and



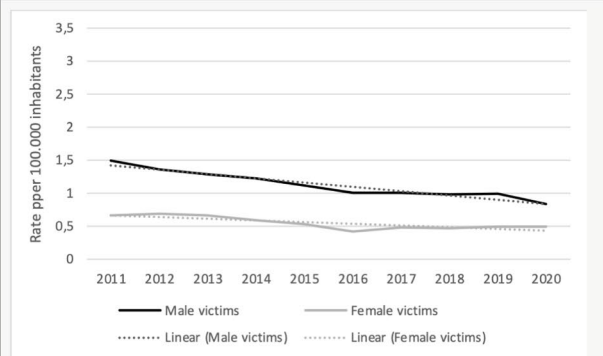
a. Denmark (2011-2016)



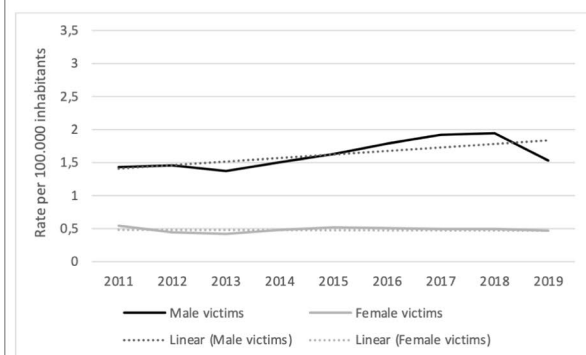
b. Finland (2011-2018)



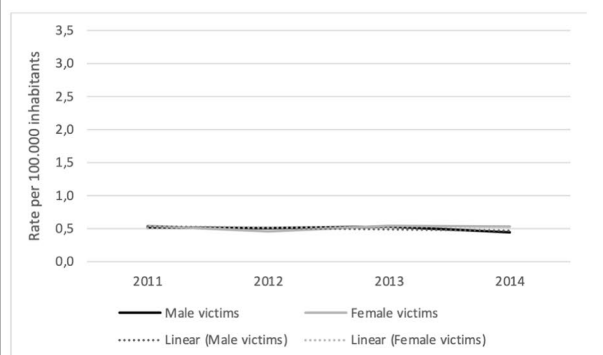
c. France* (2019-2021)



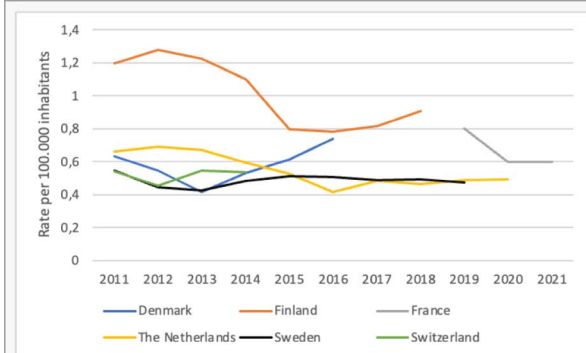
d. The Netherlands (2011-2020)



e. Sweden (2011-2019)



f. Switzerland (2011-2014)



g. Female victimization rate (all countries)

Fig. 1 Three-year moving average of female and male homicide victimization rates per 100,000 inhabitants in Denmark, Finland, France* The Netherlands, Sweden and Switzerland as well as the female victimization rate of all six countries. *No moving averages calculated, because of data availability

perpetrator took precedence over the motive (sexual motive), in this case resulting in the case being coded as a domestic homicide rather than a sexual homicide. If the relationship between victim and perpetrator was a non-domestic one, the motive constituted the primary source of classification, i.e., sexual homicide (Aarten & Liem, 2021). In line with prior work (Aarten & Liem, 2021; Suonpää et al., 2022), we used the following seven categories: (1) intimate partner homicides; (2) other domestic homicides (including child homicide, infanticide and other familial killings); (3) homicides resulting from a non-criminal dispute (including nightlife violence); (4) criminal homicides that include homicides in the context of organized crime and drug trade; (5) robbery homicides that include street robberies and commercial and residential robberies; (6) other homicides, including mental illness related (operationalized as homicides in which perpetrator psychosis was the main motive) and sexual homicides; and (7) unknown homicides, including cases where both the relationship between victim and perpetrator and the motive remained unknown. All percentages are based on valid percentages (leaving out the unknown category).

Solved

Cases are solved when the police have identified a suspect. This also includes cases that are exceptionally cleared, which means that a suspect or perpetrator is known to the police, but for some reason could not be (lawfully) arrested. Examples include perpetrators who committed suicide prior to arrest, or perpetrators who left the country and therefore the jurisdiction area.

Modus Operandi

The modus operandi was determined by the cause of death of the victim based on external causes of morbidity, according to the World Health Organization (WHO) ICD 10 (International Classification of Disease) list of ‘Assaults’. In applying this system, the EHM employs the same definition as the UNODC’s ICCS (International Classification of Crimes for Statistical Purposes). Here, causes of death include firearms, blunt instruments, sharp instruments, strangulation, hitting/kicking or other modus operandi, such as dying of poisoning, explosives, drowning, fire or motor vehicle-related injuries. In this paper, the modus operandi was divided into three groups: Firearms; sharp weapons and, following prior

research (Mize et al., 2011) hands and feet, which included strangulation and fatal beatings.

To determine differences between male and female homicide and uncleared cases, ANOVA and Chi-square tests were used. Due to European and national data protection legislation, we could not merge country data into one large dataset. None of the participating countries were legally able to release their data for a merger taking place in another country. This was mainly so because the data are fully or to a significant degree based on individual-level administrative registers which cannot currently be exported to other countries, even within Europe. This inhibited us from performing between-country multivariate analyses. Visuals were created through Tableau. Analyses used SPSS version 27.

Results

Rates and Trends

In the period under study, the female homicide rate in Denmark averaged at 0.58 per 100,000; in Finland at 0.99, in France at 0.68, in the Netherlands at 0.53; in Sweden at 0.47 and in Switzerland at 0.50.

Figures 1a–f present the three-year moving average of the homicide rate per 100,000 inhabitants for male and female victims for Denmark, Finland, France, the Netherlands, Sweden and Switzerland. These figures show two noteworthy trends. First, in all countries except for Switzerland (see Fig. 1e), the female victimization rate is much lower than the male victimization rate. In Switzerland, the rate of female victims varies between 0.3 and 0.8 and exceeds the rate of male victimization during several of the years under study. However, differences in male and female victimization in Switzerland are generally small. Finland and France show the largest difference in male and female victimization rates (see Fig. 1b, c). In the observation period (2011–2018 for Finland and 2019–2021 for France), the average homicide victimization rate for males (2.16 per 100,000 for Finland and 1.8 for France) was more than twice as high as the female victimization rate (0.99 per 100,000 for Finland and 0.68 for France).

A second noteworthy trend is that in most countries the male victimization rate has (strongly) decreased since 2011. Finland and the Netherlands, in particular, show a strong decline in male victimization of homicide. In Denmark, this decline is much smaller and in Switzerland and France, the rates have stayed relatively stable in the years under study. An exception to this downward trend is Sweden, where the male victimization rate has increased since 2013 before declining between 2018 and 2019.

Female homicide victimization rates in each of the six countries are low to very low, and 3-year variation in rates

appears to be minimal and remain relatively stable. A slight decline in female homicide victimization rates can be seen in Finland, France and the Netherlands, while in Denmark there was a slight increase. In Sweden and Switzerland, the rate has remained stable in the observation period. A closer look at the female victimization rates in Fig. 1g confirms that the homicide drop, that has been observed in many Western countries, seems to be largely driven by a decline in male victimization rates. Female victimization rates, on the other hand, are very low and fluctuations may be attributed to only a small number of cases annually.

Patterns of Female Homicide Victimization

In all six European countries under study, most female victims were aged between 30 and 64. Further, in all countries, the perpetrators of female homicide tended to be male, aged between 30 and 64. The vast majority of female homicides constituted a single victim and a single perpetrator, and took place in the private sphere. Across countries, between one half to two-thirds of all female homicides involved an intimate partner homicide, followed by other domestic homicides and, in the case of Finland, dispute homicides. Other domestic homicides mostly involved the killing of (young) children. In all six countries, female homicide was associated with very high clearance rates (ranging from 93.3 to 98.6%), possibly reflecting the domestic nature of the most prevalent type of homicide, and the intimate relationship with their perpetrators. When it comes to the *modus operandi*, female victims were mostly killed with a knife (ranging from 26.3 to 48.3%), or by hands-on methods, such as by strangulation (ranging from 18.6 to 36.7%), with the notable exception of Switzerland, where firearms constituted the primary *modus operandi* (in 35.9% of female homicide cases).

Female versus Male Homicide Victimization

In all countries except for Switzerland, the age of female homicide victims differed significantly from male homicide victims. The age of female homicide victims appears to be more spread out over their life course, while the age of male victims seems to be clustered around (early) middle age. Compared to male victims, female victims were mostly victimized by male perpetrators (ranging from 89.9 to 97.1%). The same accounted for male victims, but on average they were victimized by female perpetrators in about one-tenth of all cases; in female homicides we saw no such pattern: female victims were rarely victimized by female perpetrators. In all countries, both male and female victims tend to be killed as single victims in homicide, although male homicide victims have a higher likelihood to be killed in homicides involving multiple perpetrators. Differences between the two genders also appear in the crime scene,

with female victims more likely to be killed in the private sphere compared to male victims. What all countries have in common is that the share of female victims in intimate partner homicides is substantially higher than the share of male victims. However, beyond that observation, patterns differ across countries. In Finland, and to lesser extent in France, what stands out is the relatively high share of male victims among dispute homicides (70.1% and 47.6%, respectively); in the Netherlands, France and Sweden, the high share of male victims being involved in criminal milieu homicides (32.7%, 14.1% and 39.6%, respectively), and in Switzerland, among other domestic homicides (34.0%), such as child homicides. Further, except for Finland and Switzerland, that generally report very high clearance rates, in the Netherlands and Sweden female homicides have a higher likelihood to be cleared compared to male homicides. Finally, the most common method of male victimization in all countries except for Finland—where hands-on methods (24.9%) are also frequently used—include knives (ranging from 30.8 to 45.9%) and firearms (ranging from 12.8 to 43.9%). Yet, it is important to note that in the case of Switzerland, this pattern of male victimization does not differ substantially from female victimization.

Discussion

Findings

Rates and Trends

Compared to the global level, where the female homicide victimization rate is as high as 2.2 per 100,000 (UNODC, 2023), female victimization rates in contemporary Europe are low to very low. Hence, taken together, globally speaking, these rates all lie relatively close together, which can be attributed to the fact that all are highly developed countries with high levels of gender equality, high GDP (Gross Domestic Product) per capita, and low levels of income inequality. When zooming in on individual differences, we found that in Denmark, the Netherlands, Sweden and Switzerland, annual rates hover around 0.5 per 100,000; in France, it is 0.68 per 100,000 (0.62 in 2021). Finland appears to be an exception to this rule, with about twice that rate (0.99 per 100,000). One of the reasons why the rates of female homicide victimization in the first four countries are similar could be found in the fact that these countries are so-called *early bird* countries. As explained by Corradi and Stöckl (2014), these European countries developed governmental action against domestic violence since the mid-1970s to early 1980s. In their classification, Finland and France were an *intermediate* country, with government action being developed in the late 1980s to early 1990s. One

may hypothesize that the relatively high rates in Finland and France reflect a later onset of such policies. However, Corradi and Stöckl (2014) conclude that they did not find direct link between the development of policies against intimate partner violence, and the prevalence of intimate partner homicide against women. Further, the fact that homicide rates are higher in Finland and France for both female and male victims makes it unlikely that late onset of policies against intimate partner violence explain the difference to other European countries. Moreover, the relative share of female victims in Finland (32%) and France (28%) is almost the same as in the Netherlands (34%) and Denmark (37%)—and clearly smaller compared to Switzerland (53%). An alternative hypothesis for the relatively high Finnish female homicide rate can be attributed to factors explaining the generally higher violence rates in Finland, such as the locus of violence in socially marginalized populations with from alcohol dependence. In a recent Nordic comparison, Finnish homicide victims were more likely to be unemployed or sick-listed. More than half of Finnish victims belonged to these categories, while two-thirds were from non-working age population. The higher overall homicide rate in Finland has previously been partially explained by a larger socially marginalized working-age population (Lehti et al., 2019). The same study indicated that in Finland, 33 per cent of adult female victims were with alcohol use disorders, while the same percentage was 20 in Denmark, 13 in Sweden and 10 in Iceland (Lehti et al., 2019). Out of male offenders, the proportion of individuals with alcohol dependence was nearly twice as high in Finland compared to other Nordic countries. While the Nordic study did not disaggregate simultaneously by victim-offender relationship and social marginalization, a plausible hypothesis is that the higher female victimization rate in Finland is explained by conflicts related to disputes among marginalized, often alcohol-abusing persons belonging to same households and/or drinking groups. The relatively high share of Finnish female victims killed in non-domestic disputes probably reflects this social background (Table 1). This finding is mirrored in previous French studies, finding that a third of victims and half of suspects in France were unemployed (Langlade & Larchet, 2023). More than a quarter of female victims were found to be unemployed and 45% were inactive (i.e., too young or too old to work). In contrast to the high prevalence of alcohol consumption in female homicides in Finland, the use of alcohol only played a minor role in French female homicides (except in the overseas territories (Langlade & Larchet, 2023)). In fact, 11% of female victims had consumed alcohol (only 6% if they were killed during a dispute) (Langlade & Larchet, 2023).

Our results further indicate that female homicide victimization rates remained relatively stable during the last decade, with just minor fluctuations. Although the timeframe

of analysis is relatively short, our findings mirror crude rates reported by the WHO Mortality Database (2023) and UNODC (2023). An analysis of changing rates over time also indicates that the decline in overall homicide rates that European countries have witnessed in the past few decades (Aebi & Linde, 2014; Suonpää et al., 2022) mainly seems to be driven by a decline in male victimization. Female victimization rates, on the other hand, are very low and have remained relatively stable over time in all six countries under study. On the one hand, this may be attributable to the relatively short period under study (2011–2020); on the other hand, this finding corresponds to long-term trend analyses finding that female homicide rates do not fluctuate to the same degree as male homicide rates (Santos et al., 2021; UNODC, 2023). In Switzerland for example, where data on homicide is available from 1850 onwards, it can be observed that while homicides against men and children (independently of their gender) have strongly decreased in the last 150 years, homicides against women have remained relatively stable during this time span (Killias et al., 2019). In line with observations outside Europe, male homicide victimization rates are on average higher than female rates (Marshall & Summers, 2012, Lu et al., 2023), but the gender gap in homicide victimization is considerably smaller than in other, non-European countries (Lu et al., 2023); in our sample, the largest difference between male and female homicide victimization was reported in Finland, with about 1.17 per 100,000. In the United States, for example, this gender gap is considerably larger (12.2 for males and 2.8 for females, resulting in a difference of 9.4 per 100,000 in 2020) (WHO Mortality Database, 2023). For non-WEIRD (non-Western, Educated, Industrialized, Rich and Democratic) countries such as Brazil, for example, the gender gap is even more pronounced (41.9 for males in 3.5 for females, resulting in a difference of 38.4 in 2020) (WHO Mortality Database, 2023). Furthermore, we may expect this gender gap in Europe to diminish even more over time, especially now that recent decades witnessed a steady decline in the European homicide rate that—with some national exceptions—is not expected to reverse.

These observations are not new and can be traced back all the way to Veli Verkko, a Finnish criminologist, who proposed two laws to explain variations in homicide rates. According to his static law, the proportion of female homicide victims is higher when the overall homicide rate is low, and vice versa. The dynamic law, in turn, suggests that fluctuations in the overall homicide rate are mostly driven by male-male homicides, rather than by male-female homicides (Verkko, 1951). Both laws seem to apply in this exploratory study, revealing a comparatively high proportion of female homicides in these low-homicide European countries. Also, in line with Verkko's second law and reflected in recent work on homicide trends in Europe, the overall decline in

Table 1 Female homicide victimization compared to male homicide victimization in Denmark, Finland, France, the Netherlands, Sweden and Switzerland; % of known cases

	Denmark		Finland		France		The Netherlands		Sweden		Switzerland	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
<i>N</i>	98	164	220	464	714	1787	455	897	232	610	86	77
Missing	0		0		5		12		0		3	
Victim age	**		***		***		***		***		NS	
<i>N</i>	98	164	220	464	713	1765	436	869	203	545	86	76
Missing	0	0	0	0	1	7	8	22	29	65	0	1
0–14 years	12.2	8.5	10.5	3.4	10	7.2	8.9	5.4	5.9	2.9	10.5	5.3
15–29 years	15.3	30.5	19.1	15.5	13.7	30.7	21.8	27.2	23.6	45.1	10.5	21.1
30–64 years	55.1	53.1	54.5	72.4	49.1	52.3	54.4	60.4	49.3	45	59.3	57.9
65+ years	17.4	7.9	15.9	8.6	27.2	9.9	14.9	7	21.2	7	19.8	15.8
Median age	40	38.5	43.5	45	48	35	41	38	45	30	42	39
Perpetrator age	NS		***		***		*** ^a		***		NS	
<i>N</i>	98	164	217	458	663	1386	415	989	192	371	11	135
Missing	10	49	3	6	51	401	29	159	5	55	1	1
0–14 years	0	0.9	0	0	0.2	0.6	1	0.3	1.0	1.1	0	0
15–29 years	23.9	40.0	23.5	35.6	18.1	45	28.2	46.5	32.3	50.5	36.4	28.9
30–64 years	62.5	54.8	69.1	61.6	62.0	50.3	67.5	52.3	60.4	46.5	63.6	60.7
65+ years	13.6	4.4	7.4	2.8	19.8	4.0	3.4	0.9	6.3	1.9	0	10.4
Median age	40	33	39	35	45	31	40	31	38	28	33	39
Perpetrator gender	*Chi-sq		NS		*		NS ^a		NS		*	
<i>N</i>	98	164	217	458	666	1405	440	1081	197	389	69	68
Missing	7	24	3	6	48	382	15	122	0	18	5	4
Female	5.5	12.1	10.1	13.8	9.6	12.6	8	10.5	5.6	8.5	2.9	13.2
Male	94.5	87.9	89.9	86.2	90.4	87.4	92	89.5	94.4	91.5	97.1	86.8
Number of victims	NS		***		***		*		NS		NS	
<i>N</i>	98	164	220	464	714	1787	420	858	232	610	74	72
Missing	0	0	0	0	0	0	0	0	0	0	0	0
Single	89.6	88.8	80	92.7	88.5	94	93.3	96.5	87.7	90.2	89.2	91.7
Multiple	10.4	11.2	20	7.3	11.5	6	6.7	3.5	12.3	9.8	10.8	8.3
Number of perpetrators	**		***		***		***		***		NS	
<i>N</i>	93	149	217	458	669	1408	420	858	152	352	46	40
Missing	5	15	3	6	45	379	0	0	45	37	28	32
Single	95.7	81.9	95.9	80.1	94.6	75.9	88.3	60.4	94.1	69.3	97.8	92.5
Multiple	4.3	18.1	4.1	19.9	5.4	24.1	11.7	39.6	5.9	30.7	2.2	7.5
Crime scene	***		**		***		***		***		NS	
<i>N</i>	98	164	213	445	707	1773	402	807	189	532	63	61
Missing	3	3	7	19	7	14	18	51	43	78	11	11
Public	12.6	43.5	11.7	20.7	16.3	52.6	14.7	46.8	16.9	56.1	22.2	32.8
Private	87.4	56.5	88.3	79.3	83.7	47.4	85.3	53.2	83.1	43.9	77.8	67.2
Type homicide	***		** ^a		*** ^a		***		***		***	
<i>N</i>	98	164	217	456	696	1713	389	709	226	550	63	53
Missing	0	0	3	8	18	74	31	149	6	60	11	19
IPH	46.9	6.7	53.5	7.9	59.2	5.7	60.4	5.9	54	4.2	69.8	5.7
Other domestic	31.6	18.9	18.9	11.6	22.4	14.9	17.2	12	21.2	9.6	15.9	34.0
Dispute	3.1	39.6	17.1	70.8	8.8	47.6	3.3	28.5	9.2	35.8	3.2	26.4
Criminal milieu	1.0	15.9	0.9	3.9	0.6	14.1	1.8	32.7	2.7	39.6	4.8	13.2
Robbery	3.1	1.8	0	2.2	3.3	6.2	5.9	6.1	3.1	3.8	1.6	7.5
Other	14.3	17.1	9.7	3.5	5.7	11.6	11.3	14.8	9.8	7	4.8	13.2

Table 1 (continued)

	Denmark		Finland		France		The Netherlands		Sweden		Switzerland	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Solved	-		NS ^a		***		***		***		NS	
N	98	164	220	464	714	1787	419	858	223	544	67	61
Missing	98	164	0	0	0	0	1	0	9	66	7	11
Solved	-		98.6	98.7	93.3	78.6	95.2	83.7	96.9	66.4	97.0	98.4
Not solved	-		1.4	1.3	6.7	21.4	4.8	16.3	3.1	33.6	3.0	1.6
Modus operandi	**		**		***		***		***		NS	
N	98	164	220	462	714	1787	360	782	211	556	64	64
Missing	0	0	0	2	0	0	60	76	21	54	10	8
Firearm	13.3	29.3	17.7	12.8	22.7	30.2	13.6	41.9	10.9	43.9	35.9	29.7
Sharp weapon	34.7	39.6	37.7	45.9	26.3	30.8	41.4	33.1	48.3	38.3	28.1	39.1
Hands-on method	36.7	17.9	18.6	24.9	30.3	25.2	32.5	13.2	24.6	9.5	29.7	15.6
Other	15.3	13.4	25.9	16.5	20.7	13.8	12.5	11.8	16.2	8.3	6.3	15.6

^aNot all assumptions of the χ^2 were met

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

homicide mortality is mostly driven by the decline in male victimization and offending (Suonpää et al., 2022). It should be noted that the relative stability of female homicide victimization may be unique to Northern and Western Europe, since recent reports from Southern Europe, in particular in Greece, report the annual number of female victims to rise in recent years, possibly due to recent financial crises, combined with increased alcohol and drug consumption due to the COVID-19 pandemic (Karakasi et al., 2022).

Patterns of Female Homicide Victimization

Our findings further indicate that female homicide victims constitute a diverse group, and that women are killed in a range of different contexts. Between one half and one-third of female homicide victims were killed in the context of an (estranged) intimate partner relationship; about one-third to one-sixth was killed in another type of domestic homicide, and still other female victims died in non-criminal disputes, in lethal conflicts in the criminal milieu, in deadly robberies, or in sexual homicides. Using the umbrella-term ‘femicide’ or ‘feminicide’ to cover these cases is not without problems. Because of a lack of a uniform definition, some countries, particularly those that have included femicide as a specific offense in their Criminal Code (Pasinato & de Ávila, 2023), may be tempted to classify almost all homicides of women as femicides, while other countries do not seem to report any femicide cases (UNODC, 2019).

Despite these definitional issues, we recognize the usefulness of introducing a term such as femicide. At least two arguments can be offered to support its use in criminology and violence research broadly conceived. First, some sub-category of male offenders attacking women can be

motivated by hatred and biases against women. When seen as referring to a specific motive type, or a sub-type of hate crime, the femicide concept should inspire changes in how offender motives are classified in studies and coding manuals. For instance, we recommend that the nucleus EHM manual (Granath et al., 2021) is amended to incorporate a new variable value capturing femicidal bias crime motivation.¹

Second, the femicide concept has merit in directing attention to an important sub-type of violence against women. Still, as these findings illustrate, and similar to findings reported globally (UNODC, 2019, 2023), women are more likely to be killed by their intimate partner than by any other type of perpetrator (Taylor & Jasinski, 2011). The use of the term is thus a tool to make a specific type of violence against women visible and researchable (Walby, 2023). Violence that many women around the world face daily is a serious threat to public health and a violation of human rights. Therefore, attention to all types of violence against women, including femicidally motivated cases, is warranted. Understanding the heterogeneous nature of violence against women is necessary for effective crime prevention.

Female Versus Male Homicide Victimization

Female homicide victimization differs in many respects from male victimization, but some overlaps do exist. First, female victims are more likely to be killed by opposite-gender offenders, while male victims are more likely to be killed

¹ This could be done by dividing the value 17 (Hate crime) of the EHM nucleus variable MAINMOT into two alternatives: “Misogyny or hatred against women” and “Other hate crime”.

by same-gender people. It has been suggested that the overrepresentation of men as homicide victims and offenders can be attributed to mediating factors such as lifestyle, association with delinquent peers, low parental supervision, lower self-control, and delinquency involvement (Lauritsen & Carbone-Lopez, 2011). Further, female victims stand apart from male victims of homicide in that their risk of victimization seems to be spread out over their life course, while the age of male victims seems to be clustered around (early) middle age. Hands-on methods tend to be overrepresented among female homicide victims compared to male homicide victims, a finding mirrored in prior US studies (Mize et al., 2011). This may be attributed to the finding that men are the most common offenders in female homicides. As men generally have stronger physical strength than women, they can subdue women without weapons. A notable exception constitutes Switzerland, where both male and female victims are killed by means of a firearm in about one-third of the cases. This finding may reflect the relatively high prevalence of private firearm possession in Switzerland, a finding reported in previous European work (Krüsselmann et al., 2023). Interestingly, even though Finland, France and Sweden report similar rates of firearm possession, no clear pattern of female firearm homicides emerges. Clearly, the type of firearm ownership matters, as in Switzerland, legal firearm ownership can be tied to military weapons and shooting sports, that makes these weapons less prone to be used in criminal homicides, but more so in family homicides (since these weapons are stored at home and thus available within a family dispute). In Finland, France and Sweden, firearms appear to be used to resolve disputes and conflicts in the criminal milieu, respectively.

In countries with very high clearance rates, such as Finland and Switzerland, male and female homicides do not differ substantially. Yet in countries with lower clearance rates, such as France, the Netherlands and Sweden, male homicides have a lower likelihood to be cleared. This can be explained by the relatively high prevalence of criminal milieu homicides in these countries, that tend to occur in public, with a firearm, and oftentimes without (forthcoming) witnesses, resulting in a lower clearance rate (Liem et al., 2019).

Limitations and Future Research

This study is the first to assess the nature and scope of female homicide in six European countries, using a uniform coding system. Even though this study is the first to give a detailed overview of both rates and disaggregated incident patterns, it is not without problems, as due to data availability, the timeframe used in each of the included countries differed somewhat. This allowed us to generate

clear (longer-term) trends in some countries, while having to rely on shorter terms in others. In the future, it would thus be preferable to take a longer timeframe into consideration. Prior longitudinal work has indicated relative stability of homicide against females (Killias et al., 2019; Verkko, 1951), while there are also indications that this crime type has increased in the long duration (Kivivuori et al., 2022). If homicides against females in these selected countries are relatively stable over time, this would raise important questions as to why societies became more “peaceful” and less violent towards men, but not towards women. Answering these questions would also require a differentiated theoretical approach.

This study revealed that considerable variation exists in female homicide victimization rates between the countries, and within the countries over time. Future European research should explore to what extent these variations can be explained by gender socioeconomic inequality, as prior US based findings (Taylor & Jasinski, 2011) and earlier cross-national findings (Gartner, 1990; Santos et al., 2021) are mixed. Also, these variations between and within countries could further be explored regarding different prevention measures and legislations on violence against women that have been implemented in the last years. If and how responses of the criminal justice system on violence against women are efficient or not has been rarely tested in a European context and warrants further research attention (Corradi & Stöckl, 2016).

In addition, even though we are able to apply the same coding scheme to our national datasets, allowing for unique, exceptionally high internal validity, owing to European and national data protection legislation we were not able to merge raw, potentially identifiable data from our national datasets into one dataset for this study. We hope that future efforts to meet these legal ramifications will allow us to combine our data and to conduct more advanced analyses across countries. Also, the selection of the countries was based on availability of disaggregated homicide data in these countries, and thus the characteristics found in these six European countries may not be extrapolated to other European countries or non-Western societies. As a result, we are still far from a full understanding of the various sociocultural aspects, such as collectivism and honor, in play in female homicide victimization among non-Western societies (Dayan et al., 2022). Efforts are under way to expand the EHM concept to non-European areas, including the Dutch Caribbean and South Africa (Kivivuori et al., 2024). These efforts will hopefully reveal to what extent the heterogeneity of female homicide victimization can be observed elsewhere—and what is needed to bring such forms of lethal violence down further.

Declarations

Conflict of interest The authors declare that they have no competing interests.

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References

- Aarten, P., & Liem, M. (2021). Unravelling the homicide drop: Disaggregating a 25-year homicide trend in the Netherlands. *European Journal on Criminal Policy and Research*. <https://doi.org/10.1007/s10610-021-09489-0>
- 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.
- Batton, C. (2004). Gender differences in lethal violence: Historical trends in the relationship between homicide and suicide rates, 1960–2000. *Justice Quarterly*, 21, 423–461.
- Corradi, C., & Stöckl, H. (2014). Intimate partner homicide in 10 European countries: Statistical data and policy development in a cross-national perspective. *European Journal of Criminology*, 11(5), 601–618.
- Corradi, C., & Stöckl, H. (2016). The lessons of history: The role of the nation-states and the EU in fighting violence against women in 10 European countries. *Current Sociology*, 64(4), 671–688.
- Council of Europe. (2014). *The Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence*. Retrieved February 7, 2023, from www.refworld.org/docid/548165c94.html
- Dawson, M., & Carrigan, M. (2021). Identifying femicide locally and globally: Understanding the utility and accessibility of sex/gender-related motives and indicators. *Current Sociology*, 69(5), 682–704.
- Dawson, M., & Vega, S. M. (Eds.). (2023). *The Routledge international handbook on femicide and feminicide*. Routledge.
- Dayan, H., Kugel, C., & Enosh, G. (2022). Exploring homicide diversity: Femicide across sociocultural groups. *Crime & Delinquency*. <https://doi.org/10.1177/00111287221086273>
- Dobash, R. E., Dobash, R. P., Cavanagh, K., & Lewis, R. (2004). Not an ordinary killer—Just an ordinary guy. When men murder and intimate woman partner. *Violence against Women*, 10, 577–605.
- Dugan, L., Nagin, D., & Rosenfeld, R. (2003). Exposure reduction or retaliation? The effects of domestic violence resources on intimate partner homicide. *Law and Society Review*, 37, 169–198.
- García-Vergara, E., Almeda, N., Martín Ríos, B., Becerra-Alonso, D., & Fernández-Navarro, F. A. (2022). Comprehensive analysis of factors associated with intimate partner femicide: A systematic review. *International Journal of Environmental Research and Public Health*, 19(12), 7336. <https://doi.org/10.3390/ijerph19127336>
- Gartner, R. (1990). The victims of homicide: A temporal and cross-national comparison. *American Sociological Review*, 55(1), 92–106.
- Granath, S., Hagstedt, J., Kivivuori, J., Lehti, M., Ganpat, S., Liem, M., & Nieuwbeerta, P. (2011). *Homicide in Finland, the Netherlands and Sweden*. Brå.
- Granath, S., Liem, M., Kivivuori, J., & Markwalder, N. (2021) *European Homicide Monitor: Nucleus Variables Coding Manual*. Leiden: Leiden University. Retrieved February 7, 2023, from www.europanhomicide.com
- Heirigs, M. H., & Moore, M. D. (2018). Gender inequality and homicide: A cross-national examination. *International Journal of Comparative and Applied Criminal Justice*, 42(4), 273–285.
- Karakasi, M.-V., Voultos, P., Fotou, E., Nikolaidis, I., Kyriakou, M. S., Markopoulou, M., Douzenis, A., & Pavlidis, P. (2022). Emerging trends in domestic homicide/femicide in Greece over the period 2010–2021. *Medicine, Science and the Law*. <https://doi.org/10.1177/00258024221103700>
- Karp, A. (2018). *Estimating global civilian-held firearms numbers*. Small Arms Survey.
- Killias, M., Aebi, M. F., & Kuhn, A. (2019). *Précis de Criminologie*. Staempfli.
- Kivivuori, J., & Lehti, M. (2012). Social correlates of intimate partner homicide in Finland: Distinct or shared with other homicide types? *Homicide Studies*, 16(1), 60–77.
- Kivivuori, J., Markwalder, N., & Liem, M. (2024). European homicide monitor: Research, new developments and future. *Journal of Contemporary Criminal Justice*. <https://doi.org/10.1177/10439862241253386>
- Kivivuori, J., Rautelin, M., Netterstrøm, J. B., Lindström, D., Bergsdóttir, G. S., Ónasson, J. O., Lehti, M., Granath, S., Okholm, M., & Karonen, P. (2022). *Nordic homicide in deep time. Lethal violence in the early modern and present times*. Helsinki University Press.
- Krüsselmann, K., Granath, S., Kivivuori, J., Markwalder, N., Suonpää, K., Thomsen, A. H., Walser, S., & Liem, M. (2023). Firearm homicides in Europe: A comparison with non-firearm homicides in five European countries. *Global Crime*, 24(2), 145–167.
- LaFree, G., & Hunnicutt, G. (2006). Female and male homicide victimization trends: A cross-national context. In K. Heimer & C. Kruttschnitt (Eds.), *Gender and crime: Patterns in victimization and offending* (pp. 195–229). New York University Press.
- Langlade, A. & Larchet, K. (2023). Autopsie d'un crime : l'homicide en France. *Cahiers de la sécurité et de la justice*, 101–110.
- Lauritsen, J. L., & Carbone-Lopez, K. (2011). Gender differences in risk factors for violent victimization: An examination of individual-, family-, and community-level predictors. *Journal of Research in Crime and Delinquency*, 48(4), 538–565.
- Lehti, M., Kivivuori, J., Bergsdóttir, G.S., Engvold, H., Granath, S., Jónasson, J.O., Liem, M., Okholm, M.M., Rautelin, M., Suonpää, K., & Syversen, V. S. (2019). Nordic Homicide Report. Homicide in Denmark, Finland, Iceland, Norway and Sweden, 2007–2016. *Research Briefs 37/2019*. Helsinki: University of Helsinki, Institute of Criminology and Legal Policy.
- Liem, M. (2021). Femicide: Een kritische reflectie op het gebruik van de term. *Strafblad*, 5, 164–166.
- 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.
- Liem, M., Kivivuori, J. K. A., Lehti, M. M., Granath, S., & Schönberger, H. (2018). Les homicides conjugaux en Europe: Résultats provenant du European Homicide Monitor. *Cahiers De La Sécurité Et De La Justice*, 41, 134–146.
- Liem, M., & Pridemore, W. (Eds.). (2012). *Handbook of European homicide research: Patterns, explanations, and country studies*. Springer.

- Liem, M., Suonpää, K., Lehti, M., Kivivuori, J., Granath, S., Walser, S., & Killias, M. (2019). Homicide clearance in western Europe. *European Journal of Criminology*, 16(1), 81–101.
- Marshall, I. H., & Summers, D. L. (2012). Contemporary differences in rates and trends of homicide among European nations. In M. Liem & W. Pridemore (Eds.), *Handbook of European homicide research: Patterns, explanations, and country studies* (pp. 39–69). Springer.
- Marvell, T. B., & Moody, C. E. (1999). Female and male homicide victimization rates: Comparing trends and regressors. *Criminology*, 37(4), 879–902.
- Mize, K. D., Shackelford, T. K., & Weekes-Shackelford, V. A. (2011). Younger women incur excess risk of uxoricide by stabbing and other hands-on killing methods. *Personality and Individual Differences*, 50(7), 1120–1125.
- Montmagny Grenier, C., & Ouimet, M. (2014). Les femmes et les hommes sont-ils victimes d'homicides pour les mêmes raisons? Analyse des facteurs relatifs aux variations des taux d'homicides selon le sexe pour 166 pays. *Revue Internationale De Criminologie Et De Police Technique Et Scientifique*, 67(1), 3–19.
- Moore, M. D., Heirigs, M. H., & Barnes, A. K. (2021). A state-level analysis of gender inequality on male and female homicide. *Crime & Delinquency*, 67(12), 1879–1902.
- Parker, R. N. (1998). Alcohol, homicide, and cultural context: A cross-national analysis of gender-specific homicide victimization. *Homicide Studies*, 2(1), 6–30.
- Pasinato, W., & de Ávila, T. P. (2023). Criminalization of femicide in Latin America: Challenges of legal conceptualization. *Current Sociology*, 71(1), 60–77.
- Pizarro, J. M., DeJong, C., & McGarrell, E. F. (2010). An examination of the covariates of female homicide victimization and offending. *Feminist Criminology*, 5(1), 51–72.
- Radford, J., & Russell, D. E. (Eds.). (1992). *Femicide: The politics of woman killing*. Twayne Publishers.
- Santos, M. R., Jacobson, D., & Georgiev, G. G. (2021). The cross-national relationship between women's autonomy and long-term homicide trends. *International Criminology*, 1, 299–314.
- Schwartz, J. (2006a). Effects of diverse forms of family structure on female and male homicide. *Journal of Marriage and Family*, 68(5), 1291–1312.
- Schwartz, J. (2006b). Family structure as a source of female and male homicide in the United States. *Homicide Studies*, 10(4), 253–278.
- Suonpää, K., Kivivuori, J., Aarten, P., Ahven, A., Granath, S., Markwalder, N., Skott, S., Thomsen, A. H., Walser, S., & Liem, M. (2022). Homicide drop in seven European countries: General or specific across countries and crime types? *European Journal of Criminology*. <https://doi.org/10.1177/14773708221103799>
- Taylor, R., & Jasinski, J. L. (2011). Femicide and the feminist perspective. *Homicide Studies*, 15(4), 341–362. <https://doi.org/10.1177/1088767911424541>
- Thomsen, A. H. (2019). *Homicide in Denmark*. Aarhus University.
- Toprak, S., & Ersoy, G. (2017). Femicide in Turkey between 2000 and 2010. *PLoS ONE*, 12(8), e0182409.
- Torreçilla, J. L., Quijano-Sánchez, L., Liberatore, F., López-Ossorio, J. J., & González-Álvarez, J. L. (2019). Evolution and study of a copycat effect in intimate partner homicides: A lesson from Spanish femicides. *PLoS ONE*, 14(6), e0217914.
- Truong, M., Yeganeh, L., Cartwright, A., Ward, E., Ibrahim, J., Cuschieri, D., Dawson, M., & Bugeja, L. (2022). Domestic/family homicide: A systematic review of empirical evidence. *Trauma, Violence, & Abuse*. <https://doi.org/10.1177/15248380221082084>
- United Nations. (2006). *In-depth Study on all forms of violence against women. Report of the Secretary-General*. Retrieved February 7, 2023, from <https://www.un.org/womenwatch/daw/vaw/SGstudyvaw.htm>
- United Nations. (2021). *Kyoto declaration. On advancing crime prevention, criminal justice and the rule of law: Towards the achievement of the 2030 agenda for sustainable development*. United Nations.
- United Nations Office on Drugs and Crime. (2019). *Global study on homicide-Gender-related killing of women and girls*. United Nations Office on Drugs and Crime.
- United Nations Office on Drugs and Crime. (2023). *Global study on homicide*. United Nations Office on Drugs and Crime.
- Verkko, V. (1951). *Homicides and suicides in Finland and their dependence on national character. Scandinavian studies in sociology*, 3. G. E. C. Gads Forlag.
- Vives-Cases, C., Goicolea, I., Hernández, A., Sanz-Barbero, B., Gill, A. K., Baldry, A. C., & Stoeckl, H. (2016). Expert opinions on improving femicide data collection across Europe: A concept mapping study. *PLoS ONE*, 11(2), e0148364.
- Walby, S. (2023). What is femicide? The United Nations and the measurement of progress in complex epistemic systems. *Current Sociology*, 71(1), 10–27.
- Walser, S., Markwalder, N., & Killias, M. (2022). *Tötungsdelikte in der Schweiz von 1990 bis 2014*. Sui Generis Verlag.
- Weil, S., Corradi, C., & Naudi, M. (Eds.). (2018). *Femicide across Europe. Theory, research, and prevention*. Policy Press.
- Whaley, R. B. (2001). The paradoxical relationship between gender inequality and rape: Toward a refined theory. *Gender & Society*, 15(4), 531–555.
- Whaley, R. B., & Messner, S. F. (2002). Gender equality and gendered homicides. *Homicide Studies*, 6, 188–210.
- WHO. (2024). *Gender and health*. Retrieved May 24, 2024, from <https://www.who.int/health-topics/gender>.
- World Economic Forum. (2021). *Global Gender Gap Report 2021*. Retrieved February 7, 2023, from <https://www.weforum.org/reports/global-gender-gap-report-2021/>