

Review Article





Feminicide: epidemiology and associated factors: Scoping review

Abstract

Feminicide refers to the murder of a woman because of being a woman, although some authors include within this term any death of a woman. It is a scourge with worldwide distribution, but it has not been studied with the impetus it deserves. The objective of the review is to describe the frequency of femicide, and the factors associated with the victim. A systematic search was carried out in MEDLINE, SCIELO and LILACS of scientific articles published in the last 10 years using the terms femicide, risk, incidence. Primary studies describing the frequency of the event and related factors were selected. Twenty-three studies were included in the review. Studies from all continents except Oceania were identified. The incidence of femicide is not widely reported, with most studies reporting only an absolute frequency of the event in a determined period. Among the studies, between 19 and 17,167 cases of femicide were reported. The studies with the highest number of reports of femicide were conducted in Brazil and South Africa. The reported incidence of femicide was between 0.08-12.9 per 100,000 women. Factors of femicide associated with the victim reported include young age, having a partner, being unemployed or a housewife, having basic schooling, among others.

Keywords: woman, femicide, frequency, incidence, risk factors, associated factors

Volume 8 Issue 6 - 2020

María Alejandra Álvarez Durán, José Santiago Cortés Guzmán, Daniel José Lavao Ortiz, Eliana Ruiz Fierro, María Paula Morales Camacho, Jorge Eduardo Gómez Cabrera, Eduardo Mahecha, Jorge Ramos

Department of Health Sciences, Epidemiology logos Universidad Surcolombiana Neiva Huila, Colombia

Correspondence: María Alejandra Álvarez Durán,
Department of Health Sciences, Epidemiology Iogos Universidad
Surcolombiana Neiva Huila, Colombia, Tel +573115336371,
Email mariaaleja-7@hotmail.com

Received: December 07, 2020 | Published: December 18, 2020

Introduction

The conceptual debate around the naming of the violent deaths of women originates with the introduction of the term femicide in the early 90's, to define "the murder of women by men motivated by hatred, contempt, pleasure or a sense of ownership of women". In 2001, Diana Russell redefined the concept as "the murder of women by men, just because they are women." The concepts developed by Russell and his co-researchers seek to locate the death of women in the context of gender inequality and the power relations of men over women, constituting femicide as the extreme manifestation of violence against women.

Femicide It is classified according to the relationship between victim and perpetrator into four categories: intimate partner femicide, family member femicide, feminicide by other acquaintances, and femicide by strangers.² Other authors classify it into three groups: intimate feminicide, when exists an intimate, family or cohabitation relationship; not intimate, when the relationship is of trust, hierarchy or friendship; and by connection, when the woman is killed when she finds herself in the middle of the attempted murder of another woman.⁴

According to the Global Study on Homicide 2018.⁵ It is estimated that of the 87,000 women who were murdered globally in 2017, 58% were at the hands of their partners or family members. This means that 137 women around the world are killed daily by a member of their family.

In Colombia, femicide was classified as an autonomous crime by Law 1761 of 2015, which contemplates: "whoever causes the death of a woman, because of her condition of being a woman or because of her gender identity or where she has attended or preceded any of the following circumstances, he will incur in prison from two hundred fifty (250) months to five hundred (500) months".⁶

In Colombia, according to the National Institute of Legal Medicine and Forensic Sciences (INMLCF), during 2018 960 women were murdered in the country, 32% of those murders occurred in private space and at least 13% of these women were allegedly murdered by their partner or ex-partner, due to the fact that 73 cases have been classified by the INMLCF as femicides. Regarding violence against women at the Huila level between the year 2013 to 2018, It is reported that the form of non-sexual violence is the one to which women are most exposed, with 76.81% of the cases, being more than 3 times higher than the form of sexual violence. Women are more likely to suffer physical violence, 8,432 cases, and violence, 4,006 cases. In 80.26% of cases of gender-based violence against women, the aggressor is a man, and it is probable that the victim has some type of family relationship with the aggressor; possibly being your partner, 7,137 cases or ex-partner, 3,264 cases.

Femicide has also been typified in the legislation of other countries, such as in the case of Brazil. (4.9); Other countries have incorporated the criminal offense of femicide into their laws, such as Bolivia, Chile, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru.

Femicide, apart from the murder of the woman, has profound and prolonged repercussions on the environment around the victim, for example, the surviving children of these couples suffer lasting effects because they lose their murdered mother, their father is imprisoned





and they They often have to leave their parental home and adapt to an environment where they may be typecast as the murderer's children.⁵

Violence is influenced by risk factors and other protectors that operate at four levels: individual, relational or family, community, and social or structural for the perpetration or being a victim of femicide.²

Among risk factors at the individual level (5)For the perpetration of feminicide, the following have been described: Unemployment, owning a firearm, threats to kill with a weapon, forcing the partner to have sexual relations, problematic consumption of alcohol and use of illicit drugs, mental health problems; to be a victim of feminicide: being pregnant and being a victim of abuse during pregnancy.

Among the risk factors at the family/relational level, for the perpetration of femicide are described: mistreatment previously inflicted on the partner; to be a victim of femicide: abuse previously inflicted by the perpetrator, presence of a child born from a previous relationship (not the perpetrator's biological child), estrangement from the partner, abandonment of an abusive relationship.

Risk factors at the social / structural level include: gender inequality, including low numbers of women among elected government officials, reductions in government social expenditures in areas such as health and education.

Among the protective factors (5)At the individual level, the following are described: university education, having a separate address; at the social / structural level: increased number of police officers, legislation restricting access to firearms for perpetrators of intimate partner violence, mandatory arrest in case of violation of restraining orders related to intimate partner violence.

Since it is a relevant social problem, expected find data on the frequency of the phenomenon reported worldwide. To others, identify the factors associated with femicide of both the victim and the perpetrator.

Methodology

A scoping review was carried out on femicide, its frequency and associated factors. A systematic search was carried out in three databases: MEDLINE, SCIELO and LILACS. Ecological studies, cases and controls, cohorts published in the last 10 years (2011-2020) and that were written in English, Spanish or Portuguese were included. Articles that described femicide and those that mentioned its associated factors were included in the review.

The main result was the incidence rate or the report of incident cases of femicide. As secondary results, we sought to describe the victim factors associated with femicide.

For the selection of articles, the PECO structure was taken into account: P: Women; E: Femicide (English) / Feminicidio (Spanish); C: not applicable; O: Incidence / Incidence - Risk (Factors) / (Risk Factors).

The search equation for each database and the number of articles found are described below. The search link is also attached in order to facilitate replication of the search.

MEDLINE: ((risk [Title / Abstract]) OR (incidence [Title / Abstract])) AND (femicide [Title / Abstract]) Filters: in the last 10 years. Articles found: 34 articles. Search link.

SCIELO: (((incidence) OR (incidence)) OR ((risk) OR (risk))) AND ((femicide) OR (feminicide)) AND year_cluster :("2018" OR "2016" OR "2014" OR "2019 "OR" 2017 "OR" 2012 "OR" 2020"). Articles found: 19 articles. Search link.

LILACS: tw: ((tw: (risk)) OR (tw: (incidence)) AND (tw: (femicide))) AND (db: ("LILACS")) AND (year_cluster: [2010 TO 2020]). Articles found: 39 articles. Search link.

Source of information for gray literature

The references of the articles identified in the primary search were reviewed, those that the authors considered relevant and that met the eligibility criteria were included. Three articles identified in this way were included in the review.

The data extracted from the studies were the victim's own variables: age, race and / or country of origin, occupation, schooling, marital status, whether or not she had children, presence of pregnancy, relationship with her perpetrator, vulnerability factors; In addition, data was collected on the variables of femicide: motive, risk factors, place of the events, mechanism.

Other variables that were included for data collection were the main author (year), country of study, type of study, period of study, type of feminicide described, frequency of reported feminicides.

Roles of the authors

The search was carried out by JSC and DJL, the review of the titles and abstracts of the articles resulting from the search were carried out by all authors as described below: JG and AAD reviewed the articles from MEDLINE, ER and JSC reviewed the articles From the LILACS database, MPM and DJL reviewed the articles from the SCIELO database; In those same couples, they were selected whether or not they met the inclusion criteria, based on the title and abstract; of the remaining articles, the full text was checked for inclusion in the review. If there was any doubt, disagreements were resolved by group technique among all authors.

Results

The review included n=23 studies (Figure 1), the main characteristics of which are described in Table 1. The main reason for the exclusion of the articles was their focus on homicides in general, without detailing the specific information for femicides. Case reports and articles that did not mention original data were excluded. Duplicate articles were also excluded. $^{10-31}$

Regions

Studies from America, Europe, Africa and Asia were included. The largest number of included studies were conducted in America, with Brazil and the United States being the most frequent countries. Four articles were written in Portuguese, seven articles in Spanish, and 12 articles in English.

Studies included

20 of the included studies were ecological in nature and three studies^{17,19,31} they were of the analytical observational type. The study period of the included investigations ranged from one year to 46 years. All studies were carried out using data from local official records.

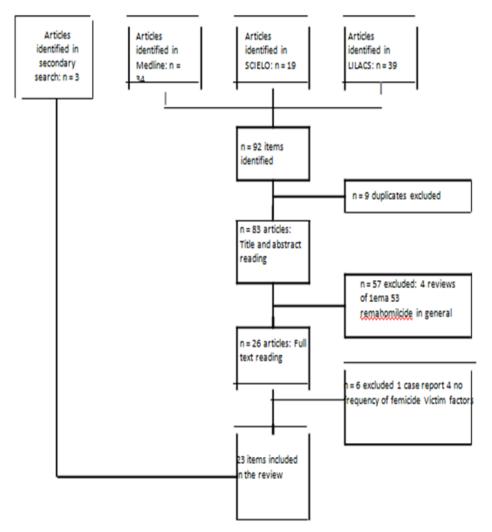


Figure I Search flow chart.

Table I Main characteristics of the studies included in the review

First author	Y ear	Country	Type of study	Study period	Population	Type of femicide	Absolute frequency of femicide	Incidence of femicide x 100,000 thousand women
OM Curro Urbano ¹⁰	2017	Peru	Ecological	2009-2014	Official Registry of Women <65 years old victims of extreme violence	Intimate, not intimate	740	0.08-0.094
N Abrahams ¹¹	2013	South Africa	Ecological	1999 and 2009	Official Registry of Women> 14 years old who died in 1999 and 2009	Intimate, not intimate	3,793 in 1999; 2,363 in 2009	24.7 in 1999; 12.9 in 2009
Caicedo-Roa ¹²	2019	Brazil	Ecological	2015	Official record of death from external causes, Brazil countryside, 2015	Intimate, not intimate, by connection, unknown	19	3.18
C Moreschi ¹³	2016	ltaly	Ecological	1993-2013	Records in the departmental legal medicine section of the University of Udina January 1 1993 to December 31 2013.	Intimate, not intimate, unknown	3.4	-

223

Table Continued...

First author	Year	Country	Type of study	Study period	Population	Type of femicide	Absolute frequency of femicide	Incidence of femicide x 100,000 thousand women
WL Fong ¹⁴	2016	Taiwan	Ecological	2001-2010	records of all female homicides 18 years of age or older from the medicolegal autopsy institute; cases resolved with the known identity of the suspects in the study period	Intimate, not intimate	220	-
To Tütüncüler ¹⁵	2015	Turkey	Ecological	1996-2005	Forensic autopsies of the city of Antalya in the study period	Intimate, not intimate	141	-
JD Yamall Orellana ¹⁶	2019	Brazil	Ecological	2016-2017	Registries of women> 11 years, fatal victims of assault in the study period	-	52	-
J Garcia ¹⁷	2018	Colombia	Analytical observational	2015-2016	Official registry of women over 14 years of age who are victims of violent death in Bogotá during the study period.	-	41	-
JR Cruz Guisbert ¹⁸	2019	Bolivia	Ecological	2016-2017	Femicide cases attended by the Special Force to Combat Violence (FELCV)	Intimate, not intimate	215	-
B Belén Sanz ¹⁹	2016	Spain	Analytical observational	2010-2011	Women over the age of 18 murdered through the Federation of Associations of Separated and Divorced Women.	-	135	-
GT Leites ²⁰	2014	Brazil	Ecological	2007- 2009; 2011-2013	Women victims of Femicide in the states of the Brazilian Federation.	-	4,368 in 2007- 2009; 4,834 in 2011-2013	4.5 in 2007- 2009; 4.9 in 2011-2013
MP Quispe Ilanzo ^I	2018	Peru	Ecological	2009-2015	women victims of femicide and attempted femicide, with secondary data (2009- 2015) from the Ministry of Women and Vulnerable Populations of Peru.	Intimate, not intimate, unknown		0.68
And Vélez Guzmán ²¹	2012	Colombia	Ecological	2010-2011	Women Victims of Femicide in the Study Period, in Medellín	-	Ш	-
H Dayan ²²	2019	Israel	Ecological	2015-2015	Women Victims of femicide by honor in the study period, in Israel	Femicide for honor	58	-
HO Ghanem Salameh ²³	2018	Jordan	Ecological	2006-2015	Women Victims of Femicide in the Study Period, in Jordan	Intimate, not intimate, by honor, unknown	100	-

Table Continued

First author	Year	Country	Type of study	Study period	Population	Type of femicide	Absolute frequency of femicide	Incidence of femicide x 100,000 thousand women
G Zara ²⁴	2019	Italy	Ecological	1993-2013	Women Victims of feminicide in the study period, in Northwest Italy.	Intimate, not intimate, unknown	86	-
To Edelstein ²⁵	2016	Israel	Ecological	1990-2010	Murdered women: Israeli, AUS immigrants, Ethiopian immigrants	Intimate	179	-
G Zara ²⁶	2018	Italy	Ecological	1970-2016	Women murdered by a man with whom they were involved in a more or less intimate relationship	Intimate, not intimate, unknown	275	-
KM Beyer ²⁷	2013	United States	Ecological	2004-2008	Murdered women over 16 years old registered in official local reports.	Intimate	84	-
L Posenato Garcia ²⁸	2015	Brazil	Ecological	2009-2011	Deaths of women in Brazil	-	17,167	5.86
EA Baumgartner ²⁹	2011	United States	Ecological	1993-2007	Women killed by intimate partner homicide in Massachusetts	Intimate	270	0.39
B Meel ³⁰	2017	South Africa	Ecological	1993-2015	Registered cases of autopsies in that period of time (26,972 victims of unnatural death)	Intimate, not intimate	1,865	12.5
EJ Miner ³¹	2012	United States	Analytical observational	1995-1998	Chicago Women's Health Risk Study	Intimate	26	-

Type of feminicide

Six studies^{13,16,19-21,28} they did not specify the type of femicide that was included in the study. Of the remaining, three studies^{11,2527} they only included data on intimate femicides; only two studies.^{22,23} They included honorific femicides, a special type of femicide in which the motive is the disgrace of the relative by an act of the woman involved, both carried out in Asia. The other studies^{1,12,14,15,18,23,24,26,31} they included intimate, non-intimate and other types of femicides. In studies that included more than one type of femicide, intimate femicide accounted for at least 44.8%, accounting for more than half of the cases in almost all studies.

Absolute frequency of feminicide

Just one study²¹ it did not describe the gross frequency of femicides reported in the study period. This frequency was variable between the studies, between 19 and 17,167 cases were reported in the different studies. The studies with the highest number of reports of femicides were carried out in Brazil and South Africa. ^{11,28}

Feminicide incidence

Only eight (30%) studies^{1,10–12,20,28–30} reported incidence of femicide. These ranged from 0.08-12.9 per 100,000 women. In a South African study.¹¹ An even higher incidence was reported, corresponding to 1999, 24.7 per 100,000 women, however, it is a data that is no

longer valid, according to this same study. The highest incidence was reported in South Africa and the lowest in Peru. No incidence rates were reported in the studies from the European and Asian continents.

Death mechanism

15 studies^{11–18,21,23,25–28,30} described the mechanism of death in cases of femicide. In approximately two-thirds of the cases, death was caused by injury from a sharp weapon or firearms. To a lesser extent, strangulation, blunt object injuries, burns, among others, were presented as death mechanisms.

Characteristics of the victims

Age

The size of the age groups was not homogeneous between the studies. However, in general terms, the highest percentage of victims was in adulthood.

Race

The percentage of victims according to race was also variable between the studies, in some with more affectation of whites, ^{12,13,26,27} while, in others, the highest percentage of victims were black. ^{28,30} In the studies carried out in Brazil, a predominance of affectation of the black race was evidenced.

Occupation

Five studies^{13–15,18,26} reported the occupational profile of the victims. In general, the highest percentages of victims were unemployed or worked as housewives.

Scholarship

Most of the victims had basic or secondary schooling. This data was only reported in six studies. 12,16,20,26-28

Civil status

The most frequent marital statuses among the victims were living with a partner, married or in a common-law union, which varied between 21-52%, and singleness, which in some studies represented up to 63%.

Pregnancy status

In 3 studies 11,12,23 Cases of femicide of pregnant patients were reported.

Relationship with the aggressor

In most cases, the aggressor was close to the victim, the highest percentage was represented by the victim's partner or ex-partner. Strangers were also a frequent group representing between 5-27% of the aggressors.

Place of crime

In more than 46% of cases, the victim's home is where the femicide occurs. Followed by the public thoroughfare, the perpetrator's address, and other places.

Victim risk factors

Different risk factors for femicide have been described among the studies, including not having children with the victim,³¹ the black and Hispanic race, in the United States;²⁹ black race has also been described as a risk factor in Brazil,^{20,28} along with young age and low education. Ages younger than 12 and older than 65,¹ the non-intimate setting and area of rural occurrence. Single marital status.²⁰ Risk is highest on weekends during daylight hours.¹⁶

Discussion

This review highlights the difficulty in evaluating the incidence of femicide and its comparison between countries, given that in each country the definition and classification of the crime, as well as the term between the Spanish and English languages, varies. 4.20

The impression remains that the topic of femicide is relatively still under-researched, taking into account the time window of the systematic search and the number of articles identified in the databases. Another option is for the studies carried out on the subject to be included in other databases.

From the studies examined, it was not frequent to estimate the incidence of the event, this may be due to the difficulty in terms of economic and logistical aspects, of monitoring all women, to identify all cases of femicide. Furthermore, in a certain sense, depending on the way the women are followed, the suspicion that their lives are in danger would put the investigation in ethical conflict. Because of this, it may be possible that all the studies reviewed are retrospective in nature.

The reported incidence of femicide ranged from 0.08 to 12.5 per 100,000 women. In the review, studies were found that included

information collected over 40 years ago, which may be one reason for the differences in the event reported, since, over time, surveillance systems, information recording, and event monitoring can have varied. The lowest incidence was reported in a study¹⁰ and the largest, in South Africa, in a study³⁰ published the same year. Causes of variation between reports may be the different method of registration or surveillance among surveillance systems, as it may reflect a cultural phenomenon in which women on the African continent are a more frequent target of violence. Comparison of incidences between countries was not possible due to the small number of studies with incidence reports, the majority reported absolute frequencies of cases, which does not make a comparison possible.

Femicide represents the maximum expression of violence against women, which is why the study's finding is relevant²⁹ which evaluated murdered women who previously received intimate partner violence between 1993-2007, which found that about 89% of victims of feminicide had received abuse by a male intimate partner.

Statistically determining factors associated with feminicide with the data collected in the current review is not possible, due to the heterogeneity of information collected and the low number of data. Race, occupation, education, and similar information were not reported in the same way in all studies. Similarly, our search did not identify systematic reviews on the subject. Narrative reviews were identified in secondary searches, 5 carried out with official information, worldwide, which have identified risk factors similar to those reported as a result of this review. For example, a risk factor was described as the existence of some sexual activity between the victim and the perpetrator, or previous abuse by the perpetrator, and that the victim had children not begotten with the perpetrator. 32

Among the disadvantages of the present review, we highlight that all the included studies were retrospective, so it is not possible to collect uniform data and work with the related information in the registries, which is also reflected in the heterogeneity of the variables included in the studies, which makes comparison between the studies difficult, for example, only three studies included data on the pregnancy status of the victims, only six studies described the educational profile of the victims, among others.

In addition to this, the retrospective nature of the studies does not make the direct association of risk factors possible, but rather an indirect association is made in the best of cases. Furthermore, only factors associated with femicide were included with respect to the victim, although in the initial search only one study was identified that focused on risk factors for femicide with respect to the perpetrator.

The strongest weakness of our study, in our consideration, is the non-reporting of incidence in the reports, only 30% of the included studies reported an incidence of femicide. In the other studies, only an absolute frequency was reported, which makes direct comparison between the different regions impossible.

As a strong point of the review, we find that studies have been carried out on all continents except Oceania. It is possible that in that continent the scourge of femicide is not frequent, or that it still goes unnoticed. In the period of publication of studies, we found two studies developed in Colombia.

Conclusion

In conclusion we can say that femicide is a current problem, global in nature, with many social implications, with fluctuations in incidence rates depending on the place or territory where it is studied, and with limited published studies, which shows a knowledge gap that It must

be thoroughly studied in order to fully describe the phenomenon and be able to generate proposals for interventions that help reduce the burden on society of this problem.

Acknowledgments

None.

Declaration of interest

The authors declare that they have no conflict of interest.

References

- Quispe Ilanzo MP, Curro Urbano OM, Cordova Delgado M, et al. Extreme violence against women and femicide in Peru TT-Extreme violence against women and femicide in Peru. Rev Cuba Salud Pública. 2018;44(2):278–294.
- World Health Organization. Understand and address violence against women. Femicide [Internet]. Washington DC; 2013.
- Acero AA del, P Homicidio. Approaches to the concepts of femicide, feminicide and homicide in women. Bases for its measurement. Bogotá DC; 2009.
- Carcedo A, Sagot M. Femicide in Costa Rica 1990-1999. Organ Panam la Salud. 2000.
- United nations office on drugs and crime. Global study on homicide gender-related killing of women and girls 2018.vienna; 2018.
- 6. Congress of Colombia. LAW 1761 OF 2015. Bogotá DC; 2015.
- 7. United Nations. Femicide UN Women Colombia. 2020.
- Alexandra Botero Salazar L, Eduardo Vargas Peña C, Alexander Beltran Rios W, et al. Violence against women. HUILA, 2013–2018. Int J Fam Community Med. 2020;4(4):98–102.
- Sousa CAM de, Silva CMFP da, Souza ER de. Determinants of homicides in the state of Bahia, Brazil, in 2009. Revista Brasileira de Epidemiologia. 2014:17(1).
- Curro Urbano O, Pastor Ramírez N, Hernández Huaripaucar E, et al. Extreme violence against women and femicide: from the intimate scene to human trafficking in Peru. Cuad Med Forensic. 2017;23(1–2):15–23.
- Abrahams N, Mathews S, Martin LJ, et al. Intimate Partner Femicide in South Africa in 1999 and 2009. PLoS Med. 2013;10(4).e1001412.
- Caicedo-Roa M, Cordeiro RC, Martins ACA, et al. Femicides in the city of Campinas, São Paulo, Brazil. Cad Saude Publica. 2019;35(6):e00110718.
- Moreschi C, Da Broi U, Zamai V, et al. Medico legal and epidemiological aspects of femicide in a judicial district of north eastern Italy. *J Forensic* Leg Med. 2016;39:65–73.
- Fong WL, Pan CH, Lee JCI, et al. Adult femicide victims in forensic autopsy in Taiwan: A 10-year retrospective study. Forensic Sci Int. 2016;266:80–85.
- Tütüncüler A, Özer E, Karagöz YM, et al. Evaluation of femicide cases committed between the years 1996-2005 in Antalya. *Omega*. 2015;71(2):198–210.

- Orellana JDY, Da Cunha GM, Marrero L, et al. Urban violence and risk factors for femicide in the Brazilian Amazon. *Cad Saude Publica*. 2019;35(8).
- García J, Franco J. Femicide in Bogotá, a look from the medical-legal approach. Cuad Med Forensic. 2018; 24(1-2):27-34.
- Cruz Guisbert Jr. Frequent factors of feminicide in bolivia. Rev Médica La Paz. 2019.
- Sanz Barbero B, Heras Mosterio J, Otero García L, et al. Sociodemographic profile of femicide in Spain and its association with domestic abuse reporting. Gac Sanit. 2016;30(4):272–278.
- Leites GT, Meneghel SN, Hirakata VN. Female homicide in Rio Grande do Sul, Brazil TT. Rev bras epidemiol. 2014;17(3):642–653.
- 21. Vélez Guzmán Y. Femicides in Medellin, 2010-2011: Conceptualization, characterization, and analysis. *Rev Crim*. 2012;54(2).
- Dayan H. Female Honor Killing: The Role of Low Socio-Economic Status and Rapid Modernization. J Interpers Violence. 2019.
- Salameh HOG, Salameh RJ, Shwaiki M, et al. Forensic medical aspects of femicide in Jordan. J Forensic Leg Med. 2018;56:90–93.
- Zara G, Freilone F, Veggi S, et al. The medicolegal, psycho-criminological, and epidemiological reality of intimate partner and non-intimate partner femicide in North-West Italy: looking backwards to see forwards. *Int J Legal Med.* 2019;133(4):1295–1307.
- Edelstein A. Intimate partner jealousy and Femicide among former Ethiopians in Israel. *Int J Offender Ther Comp Criminol*. 2018;62(2):383–403.
- Zara G, Gino S. Intimate Partner Violence and its Escalation Into Femicide. Frailty thy Name Is Violence Against Women. Front Psychol. 2018;9:1777.
- Beyer KMM, Layde PM, Hamberger LK, et al. Characteristics of the residential neighborhood environment differentiate intimate partner femicide in urban versus rural settings. *J Rural Heal*. 2013;29(3): 281– 293.
- Garcia LP, de Freitas LRS, da Silva GDM, et al. Corrected estimates of femicides in Brazil, 2009 to 2011. Rev Panam Salud Publica. 2015;37(4– 5):251–257.
- Azziz Baumgartner E, McKeown L, Melvin P, et al. Rates of femicide in women of different races, ethnicities, and places of birth: Massachusetts, 1993-2007. J Interpers Violence. 2011;26(5):1077–1090.
- Meel B. Incidence of female homicide in the Transkei sub-region of South Africa (1993–2015). J Forensic Leg Med. 2018;56:75–79.
- Miner EJ, Shackelford TK, Block CR, et al. Risk of Death or Life-Threatening Injury for Women with Children Not Sired by the Abuser. *Hum Nat*. 2012;23(1):89–97.
- 32. Contreras Taibo L, Contreras L. Risk factors for homicide of women in the couple relationship. *Univ Psychol.* 2014;13(2):681–92.