

Fatal and Nonfatal Domestic Violence among Females, Iraq, 2010–2022

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Abstract

Background: Violence against women is a significant public health and medicolegal issue, affecting women's full participation in society, leading to disability and death, particularly in societies where it is a socially accepted norm. **Objectives:** The study examines the trend and the incidence of fatal and nonfatal female domestic injuries in Iraq from 2010 to 2022. **Subjects and Methods:** A descriptive desk review was conducted on all records of females exposed to domestic violence as reported in the Iraqi Injury Surveillance System from 2010 to 2022. The population data of the country and provinces were obtained from the Ministry of Health and the Ministry of Planning. **Results:** Out of 848,665 injury records during the period between 2010 and 2022, 100,568 (11.9%) were fatal, 36,417 (36.2%) were domestic, and 41% were females. The incidence of fatal domestic violence rose steadily from 2010 to 2014, reached a plateau in 2019, and spiked again in 2020. Fatal female domestic injuries were more common among females younger than 30 years (65.5%), especially those aged 20–29 years. Females' fatal domestic injury was 10.9%; the highest was 32% in 2010, and the lowest was 0% in 2011 and 2.4% in 2012. In 2020, it rose to 17.4%. The burn was the most frequent cause (43.1%) of fatal domestic injuries, followed by gunfire (16%) and then electric shocks (15.2%). **Conclusion:** Domestic violence against females spiked during the terroristic violence time in 2014 and the COVID-19 lockdown in 2020. Mass media campaigns and law enforcement to combat this phenomenon are urgently warranted.

Keywords: Domestic violence, fatal injuries, women

INTRODUCTION

Domestic violence is an international issue, with many women being affected all over the world.^[1] Violence is used as a strategy in conflict. Relationships full of conflict, and especially those in which conflicts occur about finances, jealousy, and women's gender role transgressions, are more violent than peaceful relationships. Violence is frequently used to resolve a crisis of male identity, at times caused by poverty or an inability to control women. The risk of violence is greatest in societies where the use of violence in many situations is a socially accepted norm.^[1,2]

Violence against women is an important and serious public health and medicolegal problem that prevents women's full participation in society. Women and girls are frequent sufferers of both physical and sexual violence by partners and families, as well as strangers.^[3] The prevalence and deep-rooted nature of domestic abuse have detrimental effects on women's health and well-being. Its prolonged existence

cannot be justified morally. It comes at a considerable cost to society, health institutions, and people. However, no significant public health issue has received as much attention or comprehension.^[4]

Household injuries are common and include poisoning, falls, choking, drowning, burns, and mechanical suffocation. Poisoning is the most common cause of nonfatal accidents in home settings, with 0.3 million deaths annually due to poisoning agents.^[5,6] Falls, particularly from heights or heavy objects, are a major concern, with 35% of hospitalizations involving falls.^[7] Choking is a fatal form of domestic violence,

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with 3000 deaths in 2020.^[8] Drowning is the leading cause of injury-related death in children aged 1–4 years and second only to motor vehicle collisions in children aged 5–9 years. Burns are a leading cause of morbidity, with 180,000 deaths annually. Mechanical suffocation is the primary cause of death among them.^[9]

Iraqi Injury Surveillance Systems (IISS) was implemented gradually. It was initially piloted in 2008 in four provinces. From 2009 to 2012, nine health directorates reported data. In 2013, all Iraqi governorates were included. Data were collected from hospital emergency rooms and coroner's offices in each Directorate of Health.

Despite its importance in the country, there was scarce literature highlighting the domestic violence in Iraq. It is crucial to develop a database about fatal and nonfatal domestic violence among females in Iraq, considering the importance of such type of violence in the country.^[10–13] The study aims to examine the trend of fatal and nonfatal female domestic injuries in Iraq from 2010 to 2022, analyzing the incidence of these injuries and the distribution by various factors.

SUBJECTS AND METHODS

Study design and setting

A descriptive desk review was conducted on all records of the females exposed to domestic violence as reported in the Iraqi Injury Surveillance System during the period 2010–2022.

Case definition

All females who were abused or killed as a result of domestic violence were reported in the IISS.

Study group

All fatal and nonfatal domestic violence among females recorded within the Iraqi Injury Surveillance Systems (IISS) for the period from 2010 to 2022 were included.

Data collection

IISS data were obtained from the Operations Center Department/MOH from 2010 to 2022. The data were cleaned and merged, and any duplicates were removed. The data from all the governorates throughout these years were unavailable for many reasons. Data from 2010 to 2012 were available only from eight health directorates: Baghdad, Basra, Karbala, Erbil, Misan, Anbar, Mosel, and Sulaymaniyah. Data from all governorates from 2013 to 2015 were available, except for Mosel and Selah-Al-Dean's during 2014 and 2015. In 2015, data from Anbar were not available.

Data analysis

The violence records were imported from Microsoft Access 2016 to SPSS Inc. version 26, (Chicago, IL, USA), where the data were cleaned and analyzed. The categorical variables were presented as counts and percentages using tables and graphs. Death rates were calculated for each 100,000 population. The incidence was calculated by governorates using the population data from the Ministry of Planning.

Ethical and administrative approval

Written permission for data access was obtained from the Department of Operations and Specialized Medical Services/MOH-Iraq. The information on the injured persons was kept secure and protected, and the data were used exclusively for research purposes.

RESULTS

Out of 848,665 records of injury during the period between 2010 and 2022, the records showed that 100,568 (11.9%) were fatal. The total number of domestic fatal injuries was 36,417 (36.2%), and 41.2% were female (15,003), with a male-to-female ratio of 1.4/1, as shown in Table 1.

The majority (90.7%) of domestic violence injury victims arrived at the health facilities by private vehicles or taxis, and only 7.8% were evacuated by ambulance.

The incidence of fatal domestic violence rose steadily from 2010 to 2014, then reached a plateau till 2019 to spike again in 2020, then declined dramatically in 2021, then got back to its average levels. Still, in general, it was 6.9/100,000 females and 7.6/100,000 for males [Figure 1].

In fatal domestic injuries, the largest proportion (65.5%) was among females younger than 30 years, and one-fourth of the victims (25.2%) were in the 20–29-year age group [Table 2].

The proportion of fatal domestic injuries among females in general was 10.9%; the highest was 32% in 2010, and the lowest was 0% in 2011 and 2.4% in 2012; in 2020, it rose to 17.4% [Table 3].

In comparison, the proportion of fatal domestic injury among males in general was 8.5%; the highest was 55.2% in 2010, and the lowest was 0% in 2011 and 0.6% in 2012; in 2020, it rose to 14.3% [Table 3].

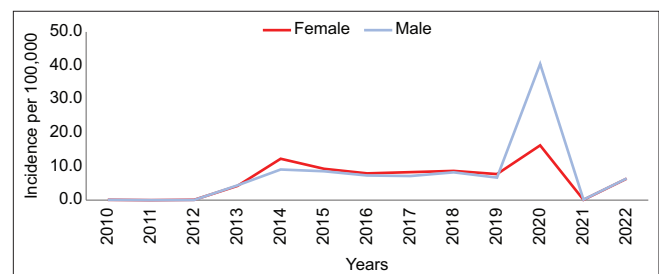


Figure 1: Incidence of fatal domestic injuries per 100,000, according to sex and years in records of injuries 2010–2022, Iraq

Table 1: Fatal domestic injuries for males and females in records of injuries 2010–2022

Injuries	Domestic fatal injuries (n=36; 417), frequencies (%)
Female victims of fatal domestic violence	15,003 (41.2)
Male victims of fatal domestic violence	21,414 (58.8)

The burn was the most frequent cause (43.1%) of fatal domestic injuries among both sexes, followed by gunfire 16% and then electric shocks 15.2%. The burn was the cause in 33% of the mortalities among males and the main cause among 57.5% of the females. Other causes are also listed in Table 4.

DISCUSSION

The process of identifying and evaluating homicides, suicides, and other domestic violence-related deaths is known as the “domestic violence fatality review.” Democracies such as the United States, Canada, the United Kingdom, Australia, New Zealand, and Portugal have all established it. Expert review teams are established to handle these situations and guarantee responsibility. Reviews differ between nations and center on deadlines, cautionary tales, and stakeholder contact. The results of fatality reviews include coordinated community reactions and perhaps preventative initiatives; nevertheless, the laws regulating these reviews differ.^[14]

This study showed that total domestic violence deaths composed 36.1% of all violent deaths reported in the violence

records system of the Iraqi Ministry of Health. In the United States, the reporting system of violence deaths reported that out of the total homicides that occurred in 2017, 12% were due to domestic violence, and 52% of them were female.^[15] In addition, this system reported that one in every three domestic deaths was due to arguments, with male predominant victims,^[15] which was also shown in the current study, as male deaths might be higher because they were directly involved in the conflict with their spouses’ children, parents, or friends.

The issue of violence against women and girls is widespread and pandemic in scope, impacting women from diverse social backgrounds.^[12] The most common type of violence against women in Arab nations is domestic abuse, which affects at least one in three of them.^[16] In Iraq, domestic physical violence against females was 4%, according to a survey conducted by the Ministry of Planning 2020.^[17] Among the total violence recorded for 12 years since 2010 in the violence recording system in the Iraqi Ministry of Health, 45.8% were domestic violence. In a previous survey conducted on a sample of 3345 households in the rural area of Misan Governorate, Iraq, in 2009, the overall domestic violence was 27.5%.^[13] The estimated domestic violence in the countries of the Middle East ranged from 11.9% in a study from Saudi Arabia among primary healthcare centers’ attendant women, where the minority reported their complaining of domestic violence which was not only from their husbands but also from own families and/or their husband relatives, with less number reported their cases to the police due to the culture habits.^[18] 64% were having Domestic violence in a household survey conducted in Iran, and 6.9% of those surveyed women were seriously injured.^[19] A cross-sectional study that used an online questionnaire in Egypt in 2020 revealed that 49.2% of the 490 respondent women were ever exposed to domestic abuse and 14.3% to physical violence.^[20] In a systematic review of 55 studies from the Middle East conducted in 2023 by Moshtagh *et al.*, the overall prevalence of domestic violence was 26.3%.^[21]

Table 2: Distribution of female fatal domestic injuries according to age groups in records of injuries 2010–2022

Age groups (years)	Frequencies (%)
0–9	2626 (17.5)
10–19	3419 (22.8)
20–29	3783 (25.2)
30–39	2088 (13.9)
40–49	1173 (7.8)
50–59	690 (4.6)
60–69	458 (3.1)
70–79	220 (1.5)
80+	135 (0.9)
Unknown	411 (2.7)
Total	15,003 (100)

Table 3: Number and proportion of fatal domestic violence injuries for both sexes in records of injuries 2010–2022

Years	Males			Females		
	Total domestic	Fatal injuries	Percentage	Total domestic	Fatal injuries	Percentage
2010	29	16	55.2	25	8	32
2011	40	0	0	43	0	0
2012	482	3	0.6	287	7	2.4
2013	10,795	802	7.4	5259	728	13.8
2014	30,603	1970	6.4	18,750	1851	9.9
2015	34,553	1726	5	17,750	1637	9.2
2016	24,739	1504	6.1	14,153	1435	10.1
2017	24,025	1506	6.3	17,874	1547	8.7
2018	16,273	1779	10.9	12,306	1658	13.5
2019	22,388	1468	6.6	15,085	1510	10
2020	63,778	9107	14.3	18,777	3262	17.4
2021	574	25	4.4	310	19	6.1
2022	23,579	1508	6.4	16,471	1341	8.1
Total	251,858	21,414	8.5	137,090	15,003	10.9

Table 4: Circumstances for fatal domestic injuries according to sex in records of injuries 2010–2022

Circumstances	Male, frequencies (%)	Female, frequencies (%)	Total, frequencies (%)
Burns	7061 (33)	8624 (57.5)	15,685 (43.1)
Gunfire	4312 (20.1)	1512 (10.1)	5824 (16)
Electric injury	4004 (18.7)	1541 (10.3)	5545 (15.2)
Suffocation	951 (4.4)	862 (5.7)	1813 (5)
Falls	1191 (5.6)	604 (4)	1795 (4.9)
Drowning	1232 (5.8)	538 (3.6)	1770 (4.9)
Sharp tools	322 (1.5)	150 (1)	472 (1.3)
Blunt	249 (1.2)	142 (0.9)	391 (1.1)
Poisoning	44 (0.2)	61 (0.4)	105 (0.3)
Animal bite	24 (0.1)	15 (0.1)	39 (0.1)
Others	1598 (7.5)	754 (5)	2352 (6.5)
Unknown	426 (2)	200 (1.3)	626 (1.7)
Total	21,414 (100)	15,003 (100)	36,417 (100)

The global estimate of the mortality rate of females due to domestic violence in 2020 was 1.2 for each 100,000. A study that reviewed the violence statistics in North Carolina, USA, from 2010 to 2017 revealed that the average fatality rate of domestic violence was 1.97/100,000 persons.^[22] The overall fatality rate rose with the years. It showed two spikes: the first was 12.29/100,000 females and 9.08/100,000 males in 2014 amid the terroristic conflicts, and the second major one was 16.26/100,000 females and 40.48/100,000 males during the lockdown of COVID-19 pandemic 2020 with an overall annual average of 6.91/100,000 females and 7.61/100,000 males. A similar association between the COVID-19 lockdown and a sharp increase in domestic violence and, hence, the mortality rate was demonstrated globally.^[23–25] In Spain, the mortality rate was close to that reported in the recent study, exceeding 6.2/100,000, with a prominent increase during the pandemic lockdown.^[24] The current study also showed that the fatality rate among males exceeded that for females, with the majority of young (below 30 years) and teenagers, which was also shown in a study from Iran that reviewed the data from 1990 to 2015 with a male-to-female ratio of 2.5:1.^[26] This is believed to be related to the maturity of the surveillance systems in addition to the pressure of the economic and social circumstances, especially during the lockdowns and armed conflicts. In addition, cultural and religious beliefs might affect these communities, in addition to substance disorders, especially among men.^[27]

The leading causes of death in the current study were burns, gunfire, and electric injuries. This was also reported in a systematic review from Kurdistan, where domestic violence was the leading cause of self-immolation by burn for females.^[28] While poisoning was the leading method in Afghanistan.^[29] Suffocation, and blunt trauma for overall domestic violence in Australia^[30] and Egypt, respectively.^[31]

The current study's limitation is its dependence on the violence reporting system of the Iraqi Ministry of Health, which was

not well developed in its 1st year. The recording was not uniform until 2015, when it followed the ICD-10 coding and reassessed the forensic medical reports to update the records, especially after the terroristic violence wave in 2014 and the following years.

This study concluded that domestic violence was highly prevalent, especially against females and young age males – two spikes in mortality rates during the 2014 terroristic wave and the COVID-19 lockdown. Mass media campaigns, law enforcement, and violence recording system development are crucial for combating domestic violence, enabling a better understanding of determinants and risk factors.

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Conflicts of interest

There are no conflicts of interest.

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