

Medico-legal Profile of Homicidal Deaths Brought to the Mortuary at Civil Hospital, Ahmedabad

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Abstract

Homicide is a brutal crime where one person kills another, robs them of their life. Forensic pathologists must distinguish between suicide, murder and accidents using autopsy. Homicides can involve various methods, including assault, strangulation, drowning, burns and poisoning. The rising incidence of homicides prompts a study to identify vulnerable age groups, sex incidence, motives, injury patterns, crime locations and survival periods. The study was conducted from January to December 2023 on 103 cases from 4172 autopsies in the Department of Forensic Medicine & Toxicology at B. J. Medical College, Ahmedabad. In this study we included the cases with alleged homicide history and those later converted to homicide. Most of the cases were in the age group of 21 years to 30 years and least in the age group of 0 to 10 years. Injuries were most common (36.89%) between 6 pm and 12 midnight and least common (17.48%) between 12 noon and 6 pm. The majority of homicidal deaths involved hard and blunt weapons (39.80%), followed by sharp and penetrating weapons (31.06%). Argument was the most common reason for homicidal death in 42.72% of instances. Homicides occurred most common on the street in 38.83% of cases. The majority of victims died within 30 minutes to 24 hours (45.63%) of infliction of injuries. 42.72% of incidents involved an acquaintance as the assailant.

Keywords: Homicide; Weapons; Injuries; Hard and blunt; Sharp and penetrating.

Introduction

One of the most heinous crimes since the dawn of society is homicide.¹ Homicide is defined as killing of one human being by another human being.² The most heinous and brutal type of violent crime is homicide, in which one person robs another of their inalienable

right to life.³ Making the distinction between a suicide, a murder and an accident is crucial for forensic pathologists. In order to distinguish between homicide and suicide, autopsy is necessary.⁴ Autopsy is useful to give an idea about homicide, suicide and accident, on the basis of pattern of injuries present over victim. The pattern of injuries is being changed

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because of population explosion, changing life style, drug and substance abusers and easy availability of various types of weapons. With the advancement of technologies human race is able to access to information regarding all sophisticated instruments and weapons that can be readily used for committing any offence and intoxication is an added menace to the existing problem.⁵ The various patterns of homicidal deaths include assault by sharp weapon, blunt weapon, firearms, strangulation, smothering, drowning, burns or poisoning etc.⁶ Every day, the newspapers scream headlines about the rising incidence of homicide. In view of rising such cases, presenting study is undertaken so as to find out the most vulnerable age group, sex incidence, motive, pattern of injuries, place of occurrence of crime and period of survival.

Materials and Method

The retrospective study was conducted from 1st January 2023 to 31st December 2023 in the Department of Forensic Medicine & Toxicology at B. J. Medical College, Ahmedabad for a period of 12 months. 103 cases corresponding to the inclusion criteria were selected from the 4172 autopsies performed in the mortuary at Civil Hospital, Ahmedabad, between study period. These cases were picked from the cases brought to mortuary for medico-legal autopsy with alleged history of homicide and also the cases which later converted homicide after autopsy findings and further investigation by investigating officer. Any cases subjected for autopsy with an alleged or suspected history of homicide but which were later registered as non-homicidal based on the autopsy findings, circumstantial evidence and investigation by the police and any cases where data was incomplete were excluded. For each case included in this study, the following parameters were recorded: age, sex, relation with assailant, place and time of incidence, motive, survival period etc. The data were collected from autopsy report, police papers and treatment

papers. All the data was analyzed in excel and results are presented in tabular form and figures.

Result and Discussion

During January 2023 to December 2023, 4172 autopsies were performed at the mortuary of Civil Hospital in Ahmedabad, with 103 cases being homicidal.

Table 1: Age and sex distribution of study participants

Age group	Male	Female	Total (%)
0-10 years	0	1	1 (0.97)
11-20 years	9	1	10 (9.71)
21-30 years	24	7	31 (30.10)
31-40 years	26	2	28 (27.18)
41-50 years	12	2	14 (13.59)
51-60 years	10	1	11 (10.68)
61-70 years	5	3	8 (7.77)
Total	86 (83.5%)	17 (16.5%)	103 (100)

As observed in table 1, most of the victims were in the age group of 21 years to 30 years and least in the age group of 0 to 10 years. Young adults constituted the most. The majority of the deaths were of men (n=86, 83.5%) rather than women (n=17, 16.5%) with male to female ratio of 5.06:1. Males outnumbered females in all age groups except for children under the age of 10 years, in which females were more common victims of homicide. Because males tend to be more aggressive and engage in outside activities, making them more open to encountering assault. Similar findings were observed in the studies conducted by Sangal A et al.¹ on 227 cases, were male constitute 70.92 % and female constitute 29.07%, Mohanty M.K et al⁷ reported 85.2% were males and 14.8% were females.

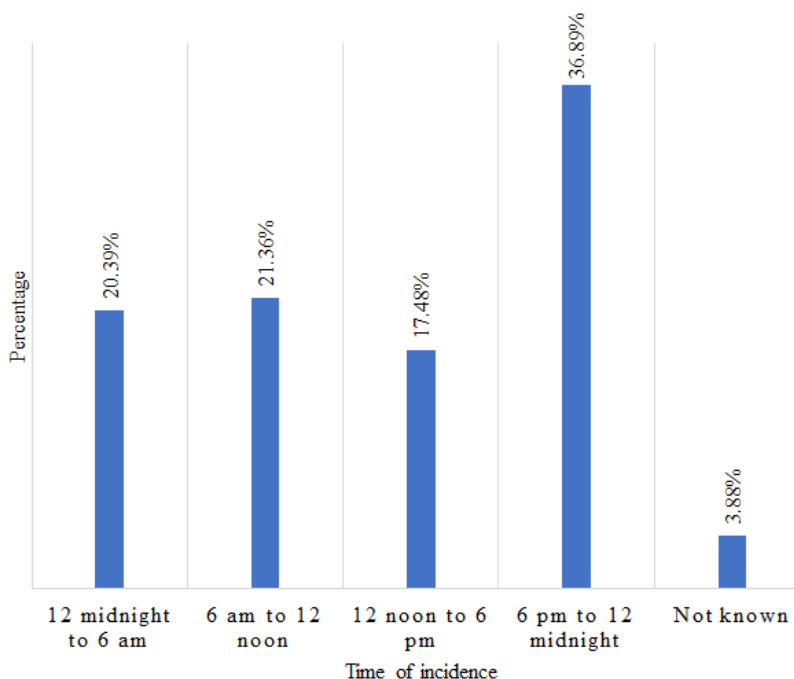


Figure 1: Time of incident

As seen in Figure 1, majority of incidence (36.89%) occurred between 6 pm to 12 midnight and least incidence (17.48%) occurred between 12 noon to 6 pm. However, study conducted by Sangal A et al¹ showed maximum killings (33.92%) occurred in late

night (12 am to 6 am) and least (8.82%) in 6 PM to 12 midnights. Sumangala CN³ reported maximum homicide in Afternoon (12pm-6pm) 24 (33.8%) and least 04 (5.6%) in late night (12am-6am), which contradicts our study.

Table 2: Distribution of cases according to type of weapon/method used

Type of weapon/method used	Male (%)	Female (%)	Total (%)
Hard and blunt	32 (31.06)	9 (8.73)	41 (39.80)
Sharp and penetrating	30 (29.12)	2 (1.94)	32 (31.06)
Both sharp and blunt	16 (15.53)	2 (1.94)	18 (17.47)
Asphyxia	0 (0)	2 (1.94)	2 (1.94)
Both blunt and asphyxia	0 (0)	1 (0.97)	1 (0.97)
Firearm	6 (5.82)	0 (0)	6 (5.82)
Burns	2 (1.94)	1 (0.97)	3 (2.91)
Total	86 (83.50)	17 (16.50)	103 (100)

As noted in table 2, the majority of homicidal deaths involved hard and blunt weapons (39.80%), followed by sharp and penetrating weapons (31.06%). Asphyxia was employed to kill predominantly female victims, whilst firearms were utilized to kill primarily male victims. However, Sumangala CN³ reported majority of injuries inflicted by sharp weapon (38%), followed by blunt weapon injuries (25%). Hugar et al⁶ also reported sharp weapon injuries in majority cases (33.25%), followed by blunt weapon injuries in 28% cases.

Table 3: Distribution of cases according to motive of homicide

Motive	Number	Percentage
Argument	44	42.72%
Financial disputes	2	1.94%
Revenge	12	11.65%
Infidelity	5	4.85%
Not known	40	38.83%
Total	103	100%

As shown in table 3, argument was the most common reason for homicidal death in 42.72% of instances, followed by revenge (11.65%) and infidelity (4.85%). The motivation for the killing could not be determined in 38.83% of cases. In our study, comparable results were obtained by Cros et al⁸, who discovered that dispute (44%) was the most common cause, however this contradicts the purpose of revenge, which was identified in only 2% of cases. Sumangala CN et al³ discovered revenge motive in 61% of cases, which contradicts our findings.

Table 4: Distribution of homicides according to place of occurrence

Place of occurrence	Number (%)
Remote place	33 (32.04)
Street	40 (38.83)
Victim's home	20 (19.42)
Work place	9 (8.74)
Assailant's home	1 (0.97)
Total	103 (100)

According to table 4, 38.83% of homicides occurred on the street, 32.04% in a remote location, 19.42% in the victim's home and 8.74% at work place. Sumangala CN et al³ reported similar data, with homicide occurring on the street/road in 73.2% of cases. But the significance difference in the percentage suggests that the environment whether urban or rural and crime rates could vary significantly between the two studies. Hugar et al⁶ reported same in 29.82% of cases, which agreed with our findings.

Table 5: Distribution of victims based on survival period

Survival period	Number	Percentage
Spot dead <30min	22	21.36%
30 min to 1 day	47	45.63%
1 day to 7 days	25	24.27%
> 7 days	9	8.74%
Total	103	100.00%

Referring to table 5, the majority of victims died within 30 minutes to 24 hours (45.63%) of infliction of injuries, followed by surviving periods of 1 day to 7 days (24.27%), spot dead in 21.36% cases and the fewest dying after 7 days (8.74%) of infliction of injuries. It is apparent that the injuries inflicted on victims were potentially fatal. Hugar et al.⁶ found

that the majority of victims died on the spot (82.5%), which contradicted findings observed by us.

Table 6: Distribution of homicides based on victim-offender relationship

Relation	Number (%)
Acquaintance	44 (42.72)
Stranger	12 (11.65)
Relative	11 (10.68)
Spouse	4 (3.88)
Parent	1 (0.97)
Not known	31 (30.10)
Total	103 (100)

As seen in Table 6, 42.72% of incidents involved an acquaintance as the assailant. The chance of the offender being a stranger or a relative was almost same. The victim-offender link could not be determined in 30.10% of cases. In a study conducted by Cros J et al⁸ the assailant was a family member in 62% of the cases (wife/ husband, 32%; former wife/ husband, 4%; family members, 25%), a lover in 1%, and an acquaintance in 25%.

Conclusion

In 39.80% of cases, only hard and blunt weapons were used, while sharp and penetrating weapons and both (sharp and blunt) weapons were used in 31.06% and 17.47% of victims, respectively. Maximum number of cases occurred in the age group 21 to 29 years in both sexes constituting 30.10% of cases. Maximum homicide took place on the street (38.83%). Most of the homicides took place in between 6 pm to 12 midnight (36.89%). The main motive behind the homicide was an argument (42.72%). Maximum numbers of homicides were committed by acquaintances (42.72%). Most of victims (45.63%) died between 30 mins to 24 hours of infliction of injuries. The current analysis of homicidal death attempted to unravel numerous factors and construct a profile of homicidal fatalities. Depending upon the findings of this study we conclude that, one has to look into their life for the solution before committing any crime and law enforcing agencies should make necessary arrangements for the implementation of the laws. However, the observations may be influenced by a variety of regional, cultural, social, political and personal elements that change throughout time.

Limitation: The current study's limitation was that it was limited to a specific region and a one-year time period. Multicenter and long-term research are required to provide an accurate understanding of homicidal mortality rates in our country.

Ethical clearance: This study did not require ethical clearance because secondary data from the record were used. Permission for the data collection was taken from the Head of Department, Forensic Medicine Department, B. J. Medical College, Ahmedabad.

Conflict of interest: There is no conflict of interest.

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