

Original Research Article

# Recent trends of homicidal deaths in Bhavnagar region - A two year retrospective study

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## Abstract

**Introduction:** Murder, the destruction of an individual is the most heinous expression of aggression found in any culture. To curb the menace of rising incidences of homicide is matter of public interest; else it may become an acceptable option. This study explores recent trends of homicide in Bhavnagar region to bring in to spotlight this emerging threat.

**Material and Methods:** Study was conducted by retrospectively reviewing available data of 59 homicide victims, autopsied in Department of Forensic Medicine, Government Medical College and Sir T. General Hospital Bhavnagar during the period of two year, from May 2013 to April 2015.

**Results:** The incidence of homicidal death was 2.40%. Male victim's predominated over female victims with ratio of 2.47:1. Majority of victims belonged to age group of 21-30 years (28.81%) with male preponderance in all age groups except 0 to 10 years. Majority victims were married (62.71%) where also, male dominance prevailed. Offenders used sharp weapons (35.59%) more commonly than blunt weapons (23.73%) though head was most vulnerable part which suffered highest injuries (25.12%) as well as fatal wounds (32.86%). Alliance of Head targeted by blunt weapon (89.42%) and chest by sharp force (79.51%) was evident. Defence wounds were in 20.34% victims. Multiple injuries were more in male victims and most common cause of death was shock and haemorrhages

(47.46%), where male predominated. However, female victims surpass male in death due to mechanical asphyxia and burns. About 50% victims died on the spot or were brought dead, while very few could survive more than 24 hours despite of hospitalization. Main motives of homicide emerged as arguments (20.34%) and revenge (18.64%) which is an apprehension to be addressed aptly.

**Conclusion:** Murder is an act of moment in mind occurring under excitement or incitement. Hence, authors emphasize to focus upon once ability of making balanced thinking over any problem with reasonable tolerance.

## Key words

Homicide, Victims, Injuries, Sharp/blunt weapons, Motive, Bhavnagar.

## Introduction

Homicide is the heinous, the cruellest and the severest form of violent crime, where one human being deprives another human being of his fundamental right to live. It is will full killing, which incorporates "Mens-rea"- preplanning or afore thought and "Actus reus"- the actual execution. Thus, homicide is not only death of human being but also of Humanity. It is extreme expression of aggression and end point of any behavioural pathway. The facilitators of such reckless behaviour include the presence of weapons and seeing other people acting violently; which may either simply increase arousal or they may suggest to the observer that violence is an acceptable option [1, 2]. Unfortunately society has become propagator of crime by its progressive expertise in producing offensive and defensive weapons and by its advancement in television transmission of modern motives and crime fiction stories without any inhibition or control on its quality or variety. The vulnerable are the young offenders who are becoming increasingly violent and that are cause for concern.

Murder apparently is not partial with Bhavnagar. The city's reputation as a cultural city or pensioner's paradise as once earned through bygone peace full civilization has been turned on its head due to rampant rise in screaming headlines of murders in everyday newspaper. Since ages the very reason or motive for killings has remained the same viz. lust for money, women and land. We are concerned to find some elements related with this potentially aggressive

situation triggering homicide in our region. Demonstration that death was violent, i.e. caused by injury is medical requirement while demonstration that the lethal violence arouse from an unlawful act, agency, procurement or culpable omission of another person, satisfies the legal requirement [3]. But still it's a challengeable task for investigating agency to reveal the mystery and for judiciary to award a deterrent sentence to the guilty.

Hence, scientific interpretation of autopsy findings along with detailed analysis of circumstances is imperative. The retrospective study is undertaken to analyze profile of homicide and patterns of injury on victims to understand the relations of murders occurring in Bhavnagar region. The knowledge thus gained can be highlighted to reveal magnitude of its impact on the society as well as to attempt solution.

## Material and methods

The present study was conducted by retrospectively reviewing 59 homicidal deaths which were autopsied by Forensic Medicine Department of Government Medical College Bhavnagar during the span of two year, from May 2013 to April 2015.

All the cases brought to the department for medico legal autopsy either confirmed or later registered as homicide by investigating police officer were considered for study. Any cases subjected for autopsy with 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.

Total data of 59 homicide victims was collected for study purpose from post-mortem report, police panchnama and hospital case papers in a predetermined format.

## Results

During the study period of 2 years, total 2457 medico-legal autopsies were conducted, Out of which 59 cases (2.40%) were of homicidal deaths.

The present study demonstrated preponderance of male victims 42 (71.19%) over females 17 (28.81%). Majority of the victims belonged to age group 21-30 years 17 cases (28.81%) followed by 31-40 years age group with 15 cases (25.42%). The least incidence was noted in above 60 years age group. (Table – 1)

**Table - 1:** Age and sex wise distribution of death due to homicide.

Age group (in years)	Male	Female	Total	%
0-10	0	4	4	6.78
10-20	9	1	10	16.95
21-30	14	3	17	28.81
31-40	10	5	15	25.42
41-50	4	1	5	8.47
51-60	4	3	7	11.86
>60	1	0	1	1.69
Total	42	17	59	100
%	71.19	28.81	100	

When age below 21 years in male and below 18 year in female was considered as not applicable for marriage, it counts up 14 victims (23.73%). Though married victims 37 (62.71%) outnumbered unmarried victims 6 (10.17%). Marital Status of two victims was not known. (Table – 2)

**Table - 2:** Distribution of cases according to marital status of victim.

Marital Status	Male	Female	Total	%
Married	27	10	37	62.71
Unmarried	4	2	6	10.17
Not Known	2	0	2	3.39
Not Applicable	9	5	14	23.73
Total	42	17	59	100.00

In 21 cases (35.59%), only sharp cutting weapons while in 14 cases (23.73%) only hard and blunt weapons were used to inflict injuries. Incidence of firearm use was in 2 cases (3.39%) and burning was done in 3 cases (5.08%). However 15.25% of victims were also murdered by ligature or manual strangulation. (Table – 3)

**Table - 3:** Type of weapon used in homicidal cases.

Weapon	Total no. of cases	%
Sharp only	21	35.59
blunt only	14	23.73
Sharp and hard and blunt	10	16.95
firearm	2	3.39
Ligature Strangulation	5	8.47
Manual Smothering	3	5.08
Smothering+ throttling	1	1.69
Thermal burns	3	5.08
Total	59	100.00

Head was the region which sustained maximum 104 (25.12%) injuries followed by chest 83 injuries (20.05%), upper limb (15.46%), lower limb (14.25%), abdomen (13.53%) and neck (11.59%) in descending order. When trauma inflicted with blunt weapons, the target region was head (39.24%) followed by neck or lower limbs each 16.03%. But when Sharp weapons were utilised, the target region was chest (37.29%) followed by abdomen (23.73%). (Table – 4)

**Table - 4:** Distribution of injuries according to region of body. (A-Abrasion, C-Contusion, L-Laceration, S-Stab, Ch-Chop, I-Insided)

Body part	Blunt Weapon					Sharp Weapon						
	A	C	L	Total	%	S	Ch	I	Total	%	Grand Total	%
Head	57	16	20	93	39.24	0	3	8	11	6.21	104	25.12
Neck	25	11	2	38	16.03	6	3	1	10	5.65	48	11.59
Thorax	3	14	0	17	7.17	52	0	14	66	37.29	83	20.05
Abdomen	2	12	0	14	5.91	37	0	5	42	23.73	56	13.53
Upper limb	16	19	2	37	15.61	10	3	14	27	15.25	64	15.46
Lower limb	10	27	1	38	16.03	7	6	8	21	11.86	59	14.25
	113	99	25	237	100.00	112	15	50	177	100	414	100.00

When infliction of fatal injuries in respect to body region and causative agent were taken in to account the most preferred target was head (32.86%) to which 21 (91.30%) fatal wounds

were caused by blunt weapon. Second choice of site was chest (24.29%) to which 15 (88.23%) fatal wounds were inflicted using sharp weapon. (Table – 5)

**Table - 5:** Distribution of cases according to mode of injury and affected body part bearing fatal injuries.

Region of body	Hard and blunt	Sharp	Firearm	Mechanical asphyxia	Total	%
Head	21	1	1	0	23	32.86
Neck	0	6	0	9	15	21.43
Thorax	0	15	2	0	17	24.29
Abdomen	0	7	2	0	9	12.86
upper limb	0	2	0	0	2	2.86
lower limb	2	2	0	0	4	5.71
Total	23	33	5	9	70	100.00
Percentage	32.86	47.14	7.14	12.86	100	

Internal organs most commonly injured in this study was brain 21 (26.58%) followed by Lungs 20 (25.32%) and heart (15.19%) while in comparison kidneys and spleen were less injured (6.33% each). (Table – 6)

55% of Male victims of homicide exhibited more than 5 injuries while in contrast 57.14% of female victims suffered only 1 to 5 injuries over their body due to physical assault. (Table – 7)

Defence wounds were present in only 12 cases, (20.34%). (Table – 8) Most of the homicide

victims either died on spot 16 (27.12%) or were brought dead 13 (22.03%) to hospital. Though 25 (42.36%) victims were hospitalized before death out of them 17 (28.81%) died within 24 hours of hospitalization. 11.86 % victims survived more than a day but died before completing a week of hospitalization. (Table – 9)

In majority of victims cause of death was shock and haemorrhage 28 (47.46%), followed by head injury 11 (18.64%) and mechanical asphyxiation 9 (15.25%). (Table – 10)

The present study reveals that the much common reason of homicide in this region is arguments (20.34%) and revenge (18.64%) while it is clear that revenge victims were only male. In 13.56% of cases motive was love or a marital affair which is equally distributed amongst male and

female. Other motives (1.69% each) comprise robbery, infanticide, custody death, dowry death and transfer of malice though motive for murder remained unknown in 16 cases (27.12%). (**Table - 11**)

**Table - 6:** Distribution of cases according to involvement of internal organ.

Organ	Total No. of cases	%
Brain	21	26.58
Lungs	20	25.32
Heart	12	15.19
Liver	9	11.39
Spleen	5	6.33
Kidneys	5	6.33
Small intestine	7	8.86
<b>Total</b>	<b>79</b>	<b>100.00</b>

**Table - 7:** Distribution of cases according to number of injuries.

No. of injury	No. of cases		Total	%
	M	F		
1	3	1	4	8.51
2	6	1	7	14.89
3	2	0	2	4.26
4	1	1	2	4.26
5	6	1	7	14.89
6-10	10	2	12	25.53
11-15	2	0	2	4.26
16-20	3	1	4	8.51
21-25	4	0	4	8.51
26-30	1	0	1	2.13
31-35	2	0	2	4.26
<b>Total</b>	<b>40</b>	<b>7</b>	<b>47</b>	<b>100.00</b>

**Table - 8:** Table showing defence wound in homicidal cases.

Defence wound	Total no. of cases	%
Present	12	20.34
Absent	47	79.66
<b>Total</b>	<b>59</b>	<b>100.00</b>

**Table - 9:** Distribution of cases according to survival period of victim.

Survival time		Cases	%
Found dead (Spot)		16	27.12
Brought dead (0-1 hour)		13	22.03
Hospitalized	1 hour - 24 hour	17	28.81
	24 hour - 7 day	7	11.86
	>7 day	1	1.69
Not known		5	8.47
Total		59	100.00

**Table - 10:** Distribution of cases according to cause of death.

Cause of death	Male	Female	Total no. of cases	%
Shock and hemorrhage	23	5	28	47.46
Head injury	9	2	11	18.64
Mechanical asphyxia	1	8	9	15.25
Thermal burns	1	2	3	5.08
complication of injury	6	0	6	10.17
Firearm	2	0	2	3.39
Total	42	17	59	100.00

**Table - 11:** Distribution of homicides according to motive.

Motive	Male	Female	Total no. of cases	%
Revenge (Intended)	11	0	11	18.64
Argument (Unintended)	8	4	12	20.34
Family dispute	2	2	4	6.78
Love / Affair matter	4	4	8	13.56
Robbery	0	1	1	1.69
Infanticide	0	1	1	1.69
Custodial death	1	0	1	1.69
Rape/ Sexual	0	3	3	5.08
Dowry death	0	1	1	1.69
Doctrine of transfer of malice	0	1	1	1.69
Not known	16	0	16	27.12
Total	42	17	59	100.00

## Discussion

Incidence of homicides was 2.40% in Bhavnagar region which is quite near to incidence observed at Jamnagar by Ghambhir O, et al. [4], 2.89%, and at Rajkot by Shah J P, et al. [5], 2.70% which happens to be neighbouring regions and

all three regions together are part of kathiavad in Gujarat. Though our incidence is lower than that found at Surat (South Gujarat) by Prajapati P, et al. [6] (4.12%) while its far lower than that observed at Chhatisgarh by Patel D J, et al. [7] 9.13%.

Males by nature are aggressive due to which they tend to indulge in violent activities and revenge. In that regard our study exhibits preponderance of male victims 42 (71.19%) over female victims 17 (28.81%), with a male: female ratio of 2.47: 1 which is consistent with observations of Buchade D, et al. [8] 2.2:1 and Hugar B S, et al. [9] 2.53:1, though it is slightly less than the ratios of our neighbouring areas as found by Shah J P, et al. [5] 3.71:1 and Ghambhir O, et. Al. [4] 3.2: 1, whereas alike many studies, it is in clear contrast to study of Kominato Y, et al. [10] where male: female ratio was of 1: 1.

In this era of competitive world the most aspirant and active age group is 21 to 30 year youngsters, who begin to mount their responsibilities of earning and marriage and can usually materialize it by age of 40 through enormous struggles with fast changing cultural, social and economic trends. These predispose persons of this age to superfluous interactions and frustrations, making them most vulnerable to violence. Our study results proliferate this view as most of the victims were from age group of 21 to 30 years 17 (28.81%) followed by age group 31 to 40 years 15 (25.42%) which together comprises 54.23% of total victims. Remarkably, male victims predominated in all age groups except for 0 to 10 years, where female victims dominated. This is real stigma for a society blowing trumpet of its development but, unable to ensure life of tender year females. This observations are in line with the studies of Mishra P K, et al. [11] Patel D J, et al. [7], and Hugar B S, et al. [9], Buchade D, et al. [8] but contrast to study of Kominato Y, et al. [10] who reported 46–55 years to be the most commonly involved age group. **(Table – 1)**

Majority of homicidal victims 37 (62.71%) were married persons but males constituted 2/3<sup>rd</sup> of them. Findings are also consistent with works of Patel D J, et al. [7] This suggest marriage unfolds liability of commitment towards life partner, kids, parents and society as a whole, principally with surplus accountability on male. This could be the reason why unmarried homicide victims

(10.17%) are lesser than married ones. **(Table – 2)**

Use of only sharp weapons (35.59%) for homicide was more common than use of only blunt weapons (23.73%). This observation is similar to study of Hugar B S, et al. [9] and Shah J P, et al. [5] though it contradicts with the studies of Ghambhir O, et al. [4] and Patel D J, et al. [7] where offenders commonly selected hard and blunt weapons for homicide. Sharp weapon usage in homicidal cases can be attributed to availability of such weapons in area but its exclusive use also point towards premeditated crime. Use of only blunt weapons for homicide could possibly be unpremeditated aggressive/explosive response. Similarly, sudden aggression can be assumed in 15.25% of victims who were murdered by ligature or manual strangulation in present study. **(Table – 3)**

Modi [12] quoted that in India most of the scalp injuries are generally produced by hard and blunt weapons /objects. Present study figured out that homicide victims suffered maximum external injuries on head 104 (25.12%), 89.42% of which were due to blunt weapon followed by the chest 83 (20.05%), 80% of which were due to sharp weapon. Such findings are similar to study results of Patel D J, et al. [7] and Prajapati P, et al. [6]. This conventional alliance is because brain and heart are targeted considering them vital organs and assuming death as certain following injury to them. Also, if offender is using blunt weapon he would be aware of the fact that blunt trauma would rarely be lethal if applied to body areas other than head and when using sharp weapon, favourable lethal target is chest as penetrability also matters. **(Table – 4)**

Present study details further that distribution of fatal wounds were highest on head 23 (32.86%) almost all of which were caused by blunt object 21 (91.30%) followed by Fatal injuries over chest 17 (24.29%) amongst which 15 (88.23%) were due to sharp object. These observations further exemplify how a particular weapon is used by offender on selected region of body to

inflict fatal wounds which we can attest to intention of homicide. These findings corroborate with observations of Mishra PK, et al. [11] and Shah J P, et al. [5]. Here, we can observe that offender tend to select penetrable and vital body areas like chest, abdomen and neck in descending order so as to inflict fatal injuries when using sharp weapons. However, study reports 2 incidences each of blunt trauma and sharp force injury even on lower limbs which turn fatal. Remarkably, study crop up that in 15 (21.43%) incidences, neck was also bearing fatal injuries, where Mechanical Asphyxia was mode of injury in 60% (**Table – 5**)

Our inferences gets reiterated when involvement of internal organs due to injuries are explored in study. As Brain (26.58%) followed by Lungs (25.32%) and heart (15.19%) in descending order were found injured. Higher involvement of brain could be due to the reason that brain and its coverings are vulnerable to even lesser degrees of blunt trauma as well as, when victim is knocked down he often strikes his head to blunt ground. Though, our results are different to the findings of Prajapati P, et al. [6] and Mishra P K, et al. [11] who found lungs to be most commonly involved organs. However, if involvement of Lungs and heart are considered together, it comprises 40.51% involvement of thoracic organs which is a comparable conclusion. Evidently, involvements of internal organs of chest and abdomen comprised of 73.42%. (**Table – 6**)

Male victims of homicide exhibited multiple injuries over their body which could be due to stronger effort to resist or fighting for longer period, whereas female victim usually surrender with few injuries. However, countable injuries more than 10 on a victim could be due to involvement of multiple assailants or also due to over killing under extreme hatred by perpetrator. These observations are consistent with that of Gambhir O, et al. [4]. (**Table – 7**)

Injuries on upper limbs which are likely due to raising of hands to prevent the attack, or by

grasping the weapon were considered as defence wound and study revealed that 12 cases, (20.34%) showed presence of defence wounds which is less than the results of Ghambhir O, et al. (29.17%) [4] and Patel D J, et al. (35.44%) [7]. Defence wounds would be more probable on male victims bearing multiple body injuries. (**Table – 8**)

Almost half (49.15%) of the homicide victims could not survive to get hospital treatment. They either died on spot 16 (27.12%) or were brought dead 13 (22.02%). Though this numbers are less than that found in study of Hugar B S, et al. [9] Shah J P, et al. [5] and Mishra P K, et al. [11]. Out of 25 (42.36%) victims who got hospitalized before death, 17 (68%) died within 24 hours and 28% died within 7 days of hospitalization. This shorter survival period despite life support signify lethality of weapons and wounds on victim. (**Table – 9**)

Most common cause of death was shock and hemorrhage followed by death due to head injury and in both male predominated, which is consistent with results of Buchade D, et al. [8]. While females dominated in homicidal death due to burns and violent asphyxia which is also consistent to study of Ghangale, et al. [13]. This could be because females or children succumb to violent resistance in act of throttling, strangulation or smothering more easily as compared to males. Death due to firearm injuries were reported only in 2 cases (3.39%), because obtaining or possessing firearms is under strict legislation as well as it is costly affair. (**Table – 10**)

It's abysmal to apparent reputation of Bhavnagar that in most of the homicides the motive was Arguments (20.34%) which includes interaction on issues of personal, social or financial conflicts. This reflects that most of the quarrel starts on trivial and non serious contest but under assimilation of male ego, aggression or provocation gets terminated in to causation of felonies including homicide. Revenge (18.64%) was the next most frequent motive which is reasonably a conscious and premeditated crime.

Alarmingly male victims were the sole sufferers. Love or Extra marital affairs constitute 13.56% of motives keeping male female counts equally balanced. In 27.12% of cases motive could not be ascertained whereas, family dispute, robbery, infanticide, custody death, rape, dowry death and even a case of Doctrine of transfer of malice were also found in study. Similar observations were made by James Alan Fox [14] while, revenge was most common motive in study by Patel D J, et al. [7] and Hugar B S, et al. [9] Author feels that perpetrators are strongly affected by cultural and political affairs along with their own built in ego on occasions, which predispose them to crime. So at such instance, a psychosocial investigation and counselling could be beneficial. (Table – 11)

### **Conclusion**

Homicide is vast varied and intricate topic, yet retrospective analysis of autopsied homicide victims is a tangible attempt to break the shell by exploring certain physical aspects of injuries which form profile of homicide in Bhavnagar region.

Homicidal deaths constituted 2.40% of autopsies conducted. Majority of victims belonged to 3<sup>rd</sup> and 4<sup>th</sup> decades with male preponderance in all age groups except 1<sup>st</sup> decade making male: female ratio of 2.47:1. Majority victims were married with male dominance. Additionally, study also helps to sketch profile of homicide by capturing certain facts like higher use of sharp weapons, using blunt weapons to target head and sharp to target chest, maximum and fatal injuries on vital parts involving brain, lungs or heart, multiple injuries on male, short survival span of victims, majority of male death due to mechanical trauma whereas of female due to mechanical asphyxia and findings of allied motives like arguments and revenge. All these facts, which surfaced, have their geographic, cultural, social, political and personal reasons and which vary over time, but we believe that common denominator is intolerance. Though, continuous research in this field is need of hours

to constitute strategies which can foil unlawful human killings.

To curb the menace of homicide, state and society should ensure education, employment and socioeconomic wellbeing along with strict law enforcement. But authors feel that murder is an act of moment in mind so any decision made under excitement or incitement is the real culprit. Therefore we would like to wrap up this by suggesting to improving once ability to think over any problem with a balanced and reasonable tolerance.

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