

An Audit of Patterns of Unnatural Deaths: an Autopsy Based Study

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ABSTRACT

Objective: To audit the medicolegal patterns and causes of unnatural deaths conducted at Liaquat University hospital.

Methods: This descriptive study was performed in the Postmortem suit, Liaquat University Jamshoro/Hyderabad and Medico-legal section of Liaquat University Hospital Hyderabad from December 2014 to October 2016. A sample of 100 autopsy cases was sorted for the findings of study interest according to the study aims/objects. Post mortem reports, emergency notes, referral notes and police papers were used for the data collection. Hospital emergency department notes were taken for severely injured victims that later on died and autopsied. Data variables were typed on Excel sheet. Variables of study interest were analyzed by descriptive statistics.

Results: Of 100 autopsy sample, homicidal, suicidal and accidental deaths were noted in 51%, 24% and 20% respectively (P=0.001). Firearm injury (46%), road traffic deaths (10%), hanging (10%), blunt (7%) and sharp edged weapons (6%) account for large number of cases. Homicidal (51%) was most common pattern of death and firearm injury (46%) was most common mode.

Conclusion: The present study reports most common pattern of death was homicidal noted in 51% of cases and commonest mode of death was firearm weapons. Use of illegal firearm weapons needs urgent action. Timely provision of justice, strict adherence to traffic rules and social values should be realized to the masses.

Key Words: Autopsy, Homicidal, Suicidal, Accidental, Firearm Injury

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INTRODUCTION:

Heart beating, respiration and brain activity are the vital functions of life. Cessation of all vital functions declares the death¹. Death is an undeniable fact that every soul has to taste².

death is always waiting for a living creature.

Death may be natural or unnatural. Unnatural death is never accepted by the family members and puts them at long term agony. An unnatural death by violence is on rise in the society, and provision of justice is essentially needed. Delay in the justice is like justice denial. "Justice delayed is but justice denied" was clearly said by British Prime Minister (1868) speech. It is a legal maxim of timely provision of just decision to the sufferer³. Delayed justice increases the violence in the society. Agitation and illegal activities are increased due to delayed justice. Unfortunately, the justice is delayed in our country. Delayed justice makes the family members impatient and violent resulting in criminal responses. This behavior has become rampant in the society. Social violence is on rise

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rampant in the society. Social violence is on rise due to easy access to the illegal weapons, and lawlessness in certain geographical areas. Smuggling of weapons is very easy job in the country due to no fear of law enforcement agencies. Increasing population, unemployment, and illiteracy adversely affect the law dispersion. Homicide is an unnatural death that is widely prevalent over the earth globe. It is a punishable offence in countries of the world⁴. Homicidal deaths is difficult to control despite the capital punishment. This heinous crime has increased in our country. Young sentimental male become violent, open fire and kill many persons. The youngsters are mostly involved in criminal activities. As they grow older, activity, sentiments and rage decrease and later on less likely to be violent. Currently, a source of great concern is the road traffic accidents that now accounts for a lot of unnatural deaths in our country. Pedestrians and motor riders are at greater risk of road traffic accidents causing 41% and 39% of fatalities respectively⁵. Currently, there is no proper system of investigations for the road traffic accidents. Cases of unnatural deaths are common for those under police custody. Death in police custody is a callous behavior and violation of the basic human rights. Innocent persons are arrested and put under physical torture to confess a crime; that has never been committed by the accused one⁶. The present study autopsy findings based study was conducted to analyze the medicolegal patterns and causes of unnatural deaths conducted at Liaquat University hospital.

METHODS:

The present is a descriptive study conducted at Liaquat University Jamshoro/Hyderabad from December 2014 to October 2016. Records of autopsy cases were taken into study protocol. All cases of unnatural deaths autopsied at Liaquat University Hospital were included in study protocol. Cases of unnatural deaths undergone autopsy were included. Homicide, accidental and suicide dead body's autopsy reports were checked for positive findings. Files

records were checked for the cases of hanging, violence or criminality. Cases of natural deaths, and those not- autopsied were excluded. A sample of 100 autopsy cases was sorted for the findings of study interest according to the study aims/objects. Post mortem reports, emergency notes, referral notes and police papers were used for the data collection. Hospital emergency department notes were taken for severely injured victims that later on died and autopsied. Data was collected in a pre-structured proforma. Age, gender, medicolegal patterns of death, cause and mode to death were noted along with autopsy findings. Data variables were typed on Excel sheet. Variables of study interest were analyzed by descriptive statistics. Categorical variables were cross tabulated and presented as frequency and %.

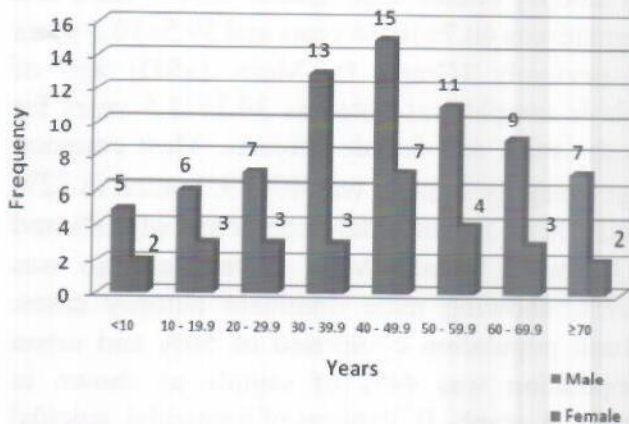
RESULTS:

Table I show the age and gender distribution of autopsy bodies. Age (mean± SD) in male and female was 40.7±10.74 years and 39.5±10.5 years respectively (Graph I). Mean (±SD) age of whole sample was noted as 39.3±11.5 years for both male and female subjects. Most common age category in male was 40- 49.9 noted in 22% and 7% of female. Male comprised of 73% and 27% were female. Male to female ratio was 2.7:1, showing male dominant autopsy cases. Rural population comprised of 56% and urban population was 44% of sample as shown in table- & graph- II. Patterns of homicidal, suicidal and accidental deaths were noted in 51%, 24% and 20% respectively (P=0.001). Medicolegal patterns of death are summarized in table-III and graph-III. Modes of death are shown in table-4 and graph-4. Fire arm injury (46%), Road traffic deaths (10%), Hanging (10%), Blunt (7%) and Sharp edged weapons (6%) account for large number of cases. Various modes of injury are shown in table 4 and graph 4. In summary, most common pattern of death was homicidal (51%) and most common mode of death was fire arm injury (46%) of cases.

Table I. Distribution of Age & Gender of Autopsy Cases (n=100)

Age (years)	Male	Female	Total
<10	5	2	7
10 - 19.9	6	3	9
20 - 29.9	7	3	10
30 - 39.9	13	3	16
40 - 49.9	15	7	22
50 - 59.9	11	4	15
60 - 69.9	9	3	12
≥70	7	2	9
Total	73	27	100

Age categories

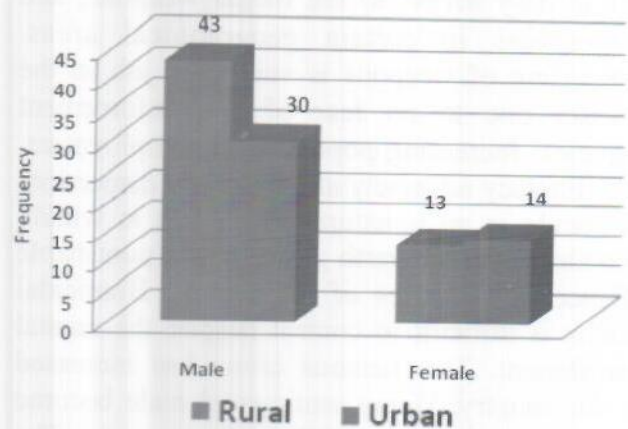


Graph I. Frequency of age categories of autopsied subjects

Table II. Rural and Urban Distribution (n=100)

Age (years)	Male	Female	Total
Rural	43	13	56
Urban	30	14	44
Total	73	27	100

Rural and Urban Population

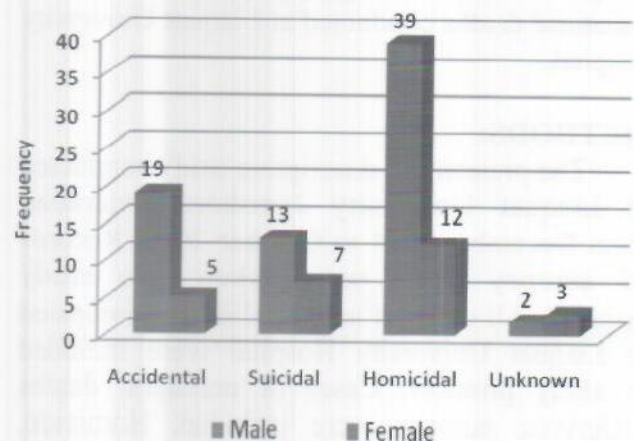


Graph II. Frequency of Rural and Urban Population of Autopsied Subjects

Table III. Medicolegal Patterns of Death (n=100)

Variables	Male	Female	Total
Accidental	19	5	24
Suicidal	13	7	20
Homicidal	38	12	51
Unknown	2	35	37
Total	73	27	100

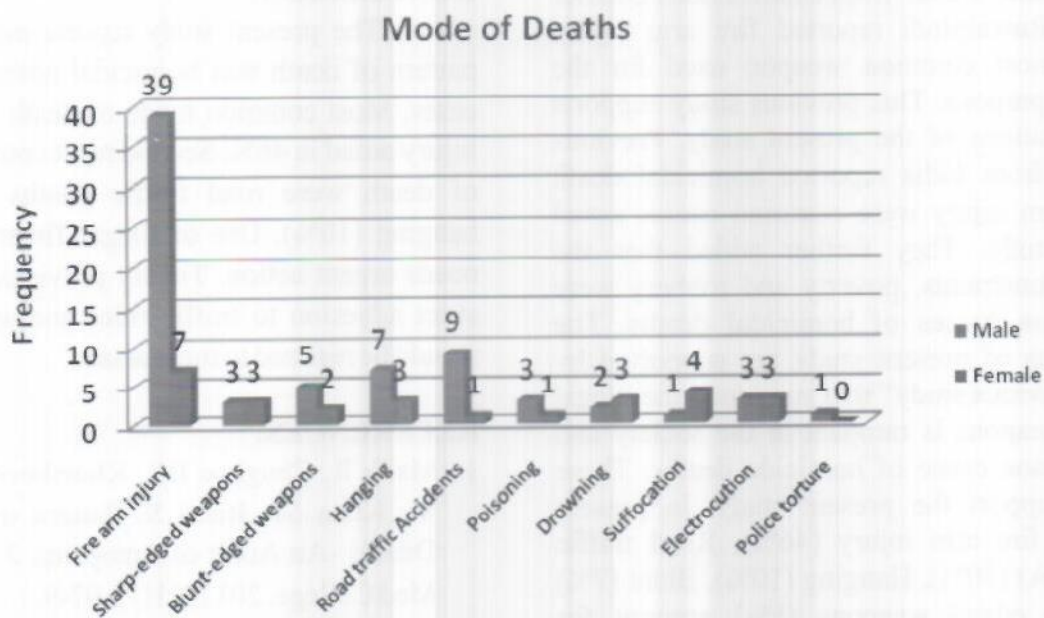
Medicolegal Patterns of Death



Graph III. Frequency of Medicolegal Patterns of Death

Table IV. Modes of Deaths in Autopsied Bodies (n=100)

Mode of Death	Male	Female	Total
Fire arm injury	39	7	46
Sharp-edged weapons	3	3	6
Blunt-edged weapons	5	2	7
Hanging	7	3	10
Road traffic Accidents	9	1	10
Poisoning	3	1	4
Drowning	2	3	5
Suffocation	1	4	5
Electrocution	3	3	6
Police torture	1	0	1
Total	73	27	100



Graph IV. Frequency of Mode of Death

DISCUSSION:

The present study is a descriptive study of medicolegal autopsies conducted to audit 100 cases of unnatural deaths to find the patterns and modes of death. The age (mean± SD) of male and female was 40.7±10.74 years and 39.5±10.5 years respectively. Mean (±SD) age of whole sample was noted as 39.3±11.5 years for both

male and female subjects. Most common age category in male was 40- 49.9 noted in 22% and 7% of female. Male comprised of 73% and 27% were female. Male to female ratio was 2.7:1, showing male dominant autopsy cases. Rural population comprised of 56% and urban population was 44% of sample as shown in table- & graph- 2. The demographic data of

present study are in agreement with previous studies¹⁻⁴ showing male dominance and most common age category. It is a fact that our society is male dependent as they are the sole bread earners. The enmity and criminality are related often to the male genders who are engaged in jobs out of home^{7,9}. Autopsy plays a pivotal role in understanding and determining the way of justice related to victims. Time, patterns, mode, mechanism and way of death help in law courts for justice particularly in homicidal cases⁷⁻¹⁰. In present study, homicidal cases were noted in 51% of autopsy cases and most common mode of death was fire arm injury noted in 46% of cases. In present study, the Patterns of homicidal, suicidal and accidental deaths were noted in 51%, 24% and 20% respectively (P=0.001). The findings are in agreement with previous studies^{1-7,10}. A past study by Malik R et al¹ from District Head Quarter Hospital, Rawalpindi reported fire arm injury was the most common weapon used for the homicidal purpose. This previous study supports the observations of the present study. Previous studies¹¹⁻¹³ from India reported homicidal death and fire arm injury were common causes noted in their study. They further added that the financial constraints, poverty and robbery were the common causes of homicidal deaths. The observations of present study are supported by another previous study¹⁴ that suggested the illegal fire arm weapons is rampant in the society and most common cause of homicide deaths. These findings support the present study. In present study, the fire arm injury (46%), Road traffic deaths (RTA) (10%), Hanging (10%), Blunt (7%) and Sharp edged weapons (6%) account for large number of cases. Most common pattern of death was homicidal (51%) and most common mode of death was fire-arm injury (46%) of cases. Previous studies^{15,16} support the present study. In present study, the RTA and hanging accounted second most cause of deaths. The society members often violate the road traffic rules resulting in loss of innocent lives. Suicidal tendency has increased in the society due to social injustice, impatience, economic and social

problems. This is in agreement to a previous study¹⁷. They reported the suicidal deaths exceeded the accidental and homicidal deaths and poisoning was the most common mode of injury. This is in contrast to present and previous studies^{1,8-10}. Death of 10% due to road traffic accidents and hanging accounts for a large proportion of deaths in present study. A previous study¹⁸ reported that the hanging is almost always common in suicidal cases. Similar is the observation of present study that notes 10% cases of hanging that all proved to be suicidal in nature. Evidence bases findings of present study suggest homicidal death is common caused by illegal firearm weapons that need urgent action by the authorities.

CONCLUSION:

The present study reports most common pattern of death was homicidal noted in 51% of cases. Most common mode of death was firearm injury noted in 46%. Second most common causes of death were road traffic deaths (10%) and hanging (10%). Use of illegal firearm weapons needs urgent action. Timely provision of justice, strict adherence to traffic rules and social values should be realized to the masses.

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