

# Profile of Unnatural Deaths; in Faisalabad

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## ABSTRACT

**Objectives:** To find out the magnitude, manner and modalities of unnatural deaths among all cases brought to the Forensic Medicine Department (PMC) Faisalabad for post mortem examination.

**Study Design:** Retrospective study.

**Place and Duration of Study:** The study was conducted in the Department of Forensic Medicine, Punjab Medical College Faisalabad from 1<sup>st</sup> January, 2012 to 31<sup>st</sup> December, 2012.

**Materials and Methods:** Study material has been collected from mortuary of (PMC) Faisalabad including police inquest reports, postmortem reports and hospital record / treatment history of the victims. A total of 397 cases of Medico legal deaths were brought for postmortem examination in the Department of Forensic Medicine, Punjab Medical College Faisalabad during one year study period. All these cases were grouped according to age, gender, manners and modalities of medico legal / unnatural deaths. The data collected, & analyzed.

**Results:** The commonest manner of death in overall age groups was homicide followed by accident, suicide & natural deaths, whereas; 59 cases remained undetermined. Among 228 homicidal deaths, Firearms were the predominant weapons of infliction (70.17%). A total of 64 (85.33%) persons lost their lives in Road Traffic Accidents (RTA) among 75 accidental deaths.

Out of total 397 cases, Males were (74.82%) and females (25.18%). The age group most commonly involved was 20-29 years (29.97%) followed by 30-39 years (21.41%) & 40-49 years (15.61%), whereas; the victims belonging to age group of 10-19 years contributed for (12.09%).

**Conclusion:** Our study concludes that Homicide was the most dominant manner of death among the unnatural deaths. Fatalities caused by Firearms were the commonest form of homicide; Road Traffic Accident was the commonest modality among accidental deaths whereas; the suicide was found as rare manner of death.

**Key Words:** Medico Legal Deaths, Homicide, Suicide, Accidents, Unnatural Deaths

## INTRODUCTION

Death is a tragedy in whatever form, at whatever time and in whatever way it comes<sup>1</sup>. The death is natural when it is due to any pathology (disease) or ageing and is unnatural when caused prematurely against order of the nature by injury, poison or other means of violence. Unnatural deaths may be accidental, suicidal, homicidal or undetermined. The data of unnatural deaths may reflect the law and order situation in a particular area of jurisdiction<sup>2</sup>. It is our firm belief being Muslims that time & place of death is fixed which is not known to anyone except Allah; the Almighty, but in case of death which is premature, unexpected and resulting from violence causes harassment / depression not only among the relatives of deceased but also have certain impacts all over the society<sup>3</sup>.

Every Human being is blessed with the gift of life for the purpose of being happy & to bring peace for all but the purpose is ignored when human pursuit of wealth and power, satisfaction of physical appetites, and passions terrorize their fellow human beings. The crime and violence exist in the society since long over the centuries but in this modern era there is an extreme aggravation of these problems<sup>4</sup>. The Type & Magnitude

of violence leading to injuries, disabilities and death, has been pointed out by various authors in their studies.

In Pakistan, attempts have been made by the researchers to find out the magnitude, cause and manner of death as well as the sociodemographic background of the victims of unnatural deaths, at different centers from province of Baluchistan,<sup>4</sup> Punjab,<sup>5-9</sup> Sindh,<sup>11-12</sup> KPK,<sup>13-17</sup> and AJK<sup>18</sup>.

Profile of the cause & manner of death forms the cornerstone of the Health Management Information System (HMIS). Drawing public attention and awareness towards casualties is important to prevent unnatural deaths; this possibly could reduce the incidence of such cases.

This paper will not only find out the magnitude of unnatural deaths but also provide a snapshot of the demographic profile, manners and modalities involved in medico legal deaths, presented to the Department of Forensic Medicine Punjab Medical College, Faisalabad for post mortem examination. The finding of this study will create awareness among the people about deaths related to violence which is the important public health concern in the society. It will also be helpful for law enforcement agencies to make the strategies for prevention of such incidences.

## MATERIALS AND METHODS

This study was performed on 397 cases of medico legal deaths reported from the urban and rural areas of Faisalabad brought to Department of Forensic Medicine (PMC) Faisalabad during the calendar year 2012; (1<sup>st</sup> January 2012 to 31<sup>st</sup> December, 2012). There were 297 males and 100 females belonging to the ages from 0 to 90 years.

As regards the data of age, gender, hospital notes / treatment history, Medico legal certificates is concerned; that was obtained from post mortem unit of (PMC) Faisalabad, whereas the record about circumstances of death was sought from the police inquest reports / FIRs. The relatives and friends of the victims were also interviewed in suspected cases of suicidal deaths. The data entered on a Performa, statistically analyzed and the results were summarized in tables and charts.

**Ethical Considerations:** Permission was obtained from Head of the Department of Forensic Medicine (PMC) Faisalabad, for examining the relevant data required for this study.

## RESULTS

Out of the total 397 victims of Medico legal deaths, 228 (57.43%) cases were of homicides and 75 (18.89%) of accidents while 23 cases (5.80%) were involved in suicidal deaths. In 12 (3.02%) cases, the manner of death was natural, whereas manner of death in 59 (14.86%) cases was undetermined. The detail is shown in Table (1) below:

**Table No.1: Showing distribution of manner of death in Medico legal fatalities (n397)**

| Manner       | Number of cases | % age       |
|--------------|-----------------|-------------|
| Homicide     | 228             | 57.43%      |
| Accidental   | 75              | 18.89%      |
| Suicidal     | 23              | 5.80%       |
| Natural      | 12              | 3.02%       |
| Undetermined | 59              | 14.86%      |
| <b>Total</b> | <b>397</b>      | <b>100%</b> |

Age wise distribution of the victims revealed that majority of the deaths 119 (29.98%) were in the age group of 20-29 years, followed by 85 ( 21.41%), 62 (15.61%) and 48 (12.09%) cases involving age groups of 30-39 years, 40-49 years & 10-19 years respectively. Both extremes of age were least presented. The detailed distribution of age & gender is shown in Table (2).

Among 228 cases of homicidal death, firearms were the weapon of choice used by the assailants in 160 (70.17%) cases followed by 30 (13.15%) deaths by sharp edged and pointed weapons, whereas blunt weapons contributed to cause the death of 17 (7.45%) victims. Manual strangulation was responsible to kill 09 (3.95%) victims; while death occurred by asphyxia due

to throttling / smothering in 08 (3.50%) cases. Burning contributed in 02 (0.87%) victims while another 02 (0.87%) victims died of hanging. Details are shown in Table 3.

**Table No.2: Showing age and sex wise distribution of Medico legal deaths (n397)**

| Age group (Years) | Male                   | Female                 | Total      | % age       |
|-------------------|------------------------|------------------------|------------|-------------|
| 0-9               | 14                     | 07                     | 21         | 5.28%       |
| 10-19             | 35                     | 13                     | 48         | 12.09%      |
| 20-29             | 88                     | 31                     | 119        | 29.98%      |
| 30-39             | 66                     | 19                     | 85         | 21.41%      |
| 40-49             | 44                     | 18                     | 62         | 15.61%      |
| 50-59             | 22                     | 05                     | 27         | 6.80%       |
| 60-69             | 21                     | 01                     | 22         | 5.56%       |
| 70-79             | 05                     | 05                     | 10         | 2.52%       |
| 80-89             | 02                     | 01                     | 03         | 0.75%       |
| <b>Total</b>      | <b>297</b><br>(74.82%) | <b>100</b><br>(25.18%) | <b>397</b> | <b>100%</b> |

**Table No.3: Showing distribution of Homicidal death cases (n=228)**

| Types                   | Male                 | Femal e             | No. of cases | % age       |
|-------------------------|----------------------|---------------------|--------------|-------------|
| Firearms                | 129                  | 31                  | 160          | 70.17%      |
| Sharp Force             | 18                   | 12                  | 30           | 13.15%      |
| Blunt Force             | 12                   | 05                  | 17           | 7.45%       |
| Strangulati on          | 05                   | 04                  | 09           | 3.95%       |
| Smothering / Throttling | 06                   | 02                  | 08           | 3.50%       |
| Hanging                 | 01                   | 01                  | 02           | 0.87%       |
| Burning                 | Nil                  | 02                  | 02           | 0.87%       |
| <b>Total</b>            | <b>171</b><br>(75 %) | <b>57</b><br>(25 %) | <b>228</b>   | <b>100%</b> |

Among a total of 75 accidental deaths, 64 (85.34%) persons lost their lives in Road Traffic Accidents. Death due to Railway track accidents occurred in 02 (2.66%) victims, Accidental Burns took the life of 08 (8.01%) victims whereas 01 (1.33%) case died of accidental electrocution. The detail of distribution among accidental fatalities is shown in Table (4)

**Table No.4: Showing distribution of accidental death modalities (n=75)**

| Modalities                   | Male                  | Females               | No. of cases | % age       |
|------------------------------|-----------------------|-----------------------|--------------|-------------|
| Road Traffic Accidents (RTA) | 52                    | 12                    | 64           | 85.34%      |
| Accidental Flame Burns       | 04                    | 04                    | 08           | 8.01%       |
| Railway track accidents      | 02                    | Nil                   | 02           | 2.66%       |
| Electrocution                | 01                    | Nil                   | 01           | 1.33%       |
| <b>Total</b>                 | <b>59</b><br>(78.66%) | <b>16</b><br>(21.34%) | <b>75</b>    | <b>100%</b> |

Among total 23 suicidal deaths, hanging had higher incidence 13 (56.52%) cases followed by firearms in 08 (34.78%) cases. There was 01 (4.35%) case of self destruction by flame burn while 01 male ended his life by jumping from height. Details shown in Table (5).

**Table No.5: Showing distribution of modalities in suicidal deaths (n=23)**

| Modalities          | Male           | Females        | Total cases | % age  |
|---------------------|----------------|----------------|-------------|--------|
| Hanging             | 05             | 08             | 13          | 56.52% |
| Firearm Injuries    | 05             | 03             | 08          | 34.78% |
| Burning             | 01             | Nil            | 01          | 4.35%  |
| Jumping from height | 01             | Nil            | 01          | 4.35%  |
| Total               | 12<br>(52.17%) | 11<br>(47.83%) | 23          | 100%   |

## DISCUSSION

Faisalabad is thickly populated / industrial city, known as Manchester of Pakistan, with modern and traditional ways of living. According to the Economic survey conducted in 2009-10, Faisalabad had the population of 2,912,269 being the 3<sup>rd</sup> largest city of Pakistan<sup>19</sup>. Faisalabad city being hub of the textile industry, with a busy dry port and famous educational institutions, is situated at the junction of roads leading to different cities of the province & majority of the people travel on roads of this region for the purpose of trade & their personal matters.

We have tried to find out the manners and modalities of deaths which were brought for medico legal autopsies in the mortuary of Forensic Medicine Department Punjab\_Medical College, Faisalabad during the study period i.e. 1<sup>st</sup> January 2012 to 31<sup>st</sup> December, 2012. Results of our study showed that the most dominant manner of death was homicide followed by accidents.

Out of total 397 deaths, 228 (57.43%) were homicidal, 75 (18.90%) accidental and 23 (5.80%) committed suicide. In 12 (3.02%) cases, the death occurred due to natural causes whereas in 59 (14.86%) cases the manner of death remained undetermined. (Table No.1). This finding of present study is in agreement with studies conducted at Peshawar<sup>13</sup> and Dera Ismail Khan<sup>14</sup>, which showed homicidal deaths predominance in all unnatural deaths. Whereas; the finding of our study are in contrast with the studies conducted at Dacca<sup>20,28</sup>, Hyderabad<sup>10</sup> and Nigeria<sup>21</sup> which showed the accidental deaths as dominant manner in all Medico legal deaths.

Our results illustrate that during the period under study, 228 (57.43%) cases were labeled as homicidal deaths. These finding are consistent with the studies conducted in Lahore<sup>6</sup>, and Nawabshah<sup>11</sup> but is less than the percentage found in Bahawalpur<sup>7</sup>, and Peshawar<sup>13</sup>.

The most vulnerable age group in our study was 20-29 years involving 119 (29.97%) fatalities, followed by 30-39 years, 85 (21.41%) victims in the age group of 30-39 years, 62 (15.61%) cases of 40-49 year and 48 (12.09%) cases of

10-19 years. The cases belonging to both extremes of age were least involved.

Our results are similar with the studies in different centers of Pakistan<sup>8,9,12,15</sup> and other countries<sup>22-26</sup> reporting highest incidence of medico legal deaths in this age group. This is due to the fact that persons belonging to this age group are active, mobile & energetic. The young individuals are short tempered & easily become emotional which result in violence. Deaths among males were predominant 297 (74.81%), while female number was 100 (25.19%) & this male to female ratio is similar to the findings of other authors<sup>17,20,23</sup>.

Road Traffic Accident victims among accidental deaths were mostly vehicular occupants than the pedestrians. The main reasons for RTAs in this area are overcrowded roads with different type of vehicles used for transportation of goods, including heavy vehicles, animal carts, tractor trolley & auto rickshaw, etc. The situation is versed due to defects in vehicles and lack of observance of traffic rules.

Suicide was a rare manner of death contributed in 23 (5.79%) cases and out of those, 12 males committed suicide as compared to 11 females. Hanging was adopted for committing suicide in 13 cases which outnumbered as compared to other methods. Among them, 5 were males and 8 female.

It has been observed that firearms as weapon of assault (70.17%) outnumbered all other weapons used among 228 cases of homicidal deaths. This finding is in similarity with the fact that guns are the method of choice for committing intentional deaths. The United Nations global study on homicide statistics; "On trends and patterns in homicide" estimated 468000 homicidal deaths in the year 2010 and firearms was involved in 42 percent of global homicides<sup>27</sup>. Similar pattern has been reported by some authors in their studies<sup>14,16</sup> conducted at different centers of Pakistan indicating the firearms as weapons of choice to be used for killing as compared to other modalities.

## CONCLUSION

Our study showed that homicide was the commonest & dominant manner of death as compared to others. Accidental deaths were the next to homicide. Fatalities due to Firearms were on the top of homicidal injuries and deaths during the period of our study. The males belonging to 2<sup>nd</sup> & 3<sup>rd</sup> decade of life were commonly involved in violence. Among accidental deaths, majority of the victims lost their lives in Road Traffic Accidents.

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