



## SMALL ARMS, MAJOR TRANSGRESSIONS: EXPLORING HOMICIDAL DEATHS BY FIREARMS IN CITY OF FAISALABAD, PAKISTAN

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**ABSTRACT... Objectives:** To analyze the data regarding prevalence of homicidal deaths due to firearm. **Study Design:** Descriptive, Observational, Retrospective study. **Setting:** Postmortem unit of Allied Hospital Faisalabad. **Period:** From January 1st, 2017 to December 31st, 2017. **Material & Methods:** After approval, data was obtained from the duplicate copies of autopsy reports kept at the postmortem unit of Allied Hospital Faisalabad. The data was then entered on a pre-designed Performa. **Results:** During the year 2017, 80 cases of firearm were autopsied at the postmortem unit of Allied Hospital, Faisalabad, of which 78 were homicidal. Out of 78 cases autopsied, 67 (85.9%) were males & 11(14.1%) were females. The fatality rate was highest (46.2%) between 21-40 years whereas; the least affected age group was > 60 years (10.3%). Multiple body parts were mostly affected, the percentage being 47.4%. It is worth mentioning that out of 78 cases only one victim was shot by smooth bored weapon (1.3%) while rest of them were hit by Rifled weaponries (98.7%). Most of the demises occurred at crime scenes which were more common during Morning & Evening between the months of October to March. There is a significant association between cause of death with region of body affected in our study. **Conclusion:** Unfortunately, productive age group of our society is more exposed to gunshots with multiple regions enclosing vital organs of body are mostly inflicted.

**Key words:** Autopsy, Firearms, Gunshot Injuries, Homicide, Pakistan.

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### INTRODUCTION

Being contended & obliged is human quality most liked by Allah<sup>1</sup> but in today's world it is very despairing that we humans are very far off from this virtue. Due to this reason we are facing lots of financial & social stresses, which sometimes inculcate persistent negative thoughts resulting in our behavior alteration.<sup>2</sup> This attitude variation grabs away our cognitive ability to differentiate right from wrong & legal from illegal. Unfortunately this is one of the reasons that has resulted in increased number of homicides throughout the globe in developed as well as developing countries.<sup>3</sup>

Literally homicide means killing of one person by another. However, the ways of committing homicides are very diverse. Out of them is the use of firearms which is the most common means exploited throughout the sphere.<sup>4</sup> Some of the

reasons include their easy availability, handy use, unregulated trade & transfer, socio economic disproportion, illiteracy, uncertain topographical conditions and poor law & order situations.<sup>5,6</sup>

According to Small Arms Survey Research Notes, the number of intentional deaths by gunshots has risen to an alarming level globally, out of these 50% deaths were due to firearm alone.<sup>3</sup> Likewise; our national situation is not very different from the rest of the world. According to the report of Pakistan Bureau of Statistics, the number of total homicidal deaths reported in year 2017 is 8235. Among these, the province of Punjab carries the burden of 3914 deaths amounting to 47.5% of the total.<sup>7</sup> In the city of Faisalabad the percentage of homicidal deaths reported at the postmortem unit of a tertiary care hospital is 50.58% out of all the autopsies being done in year 2017. According to this local research, 57.36% homicidal deaths

were caused by firearms exclusively.<sup>8</sup>

The aim of our study is to explore the deaths by small arms as they are the most lethal means of committing homicide in Faisalabad city and these have not been studied in detail before.

## OBJECTIVE

To analyze the data regarding prevalence of homicidal deaths due to firearm

## MATERIAL & METHODS

It is a descriptive, observational, retrospective study conducted over a period of one year i.e. from January 1<sup>st</sup>, 2017 to December 31<sup>st</sup>, 2017.

### Inclusion Criteria

All homicidal deaths due to firearm.

### Exclusion Criteria

All manners of death except for homicide.  
Homicidal deaths by other means besides firearm.

After approval from concerned authority, data was obtained from the duplicate copies of autopsy reports kept at the postmortem unit of Allied Hospital Faisalabad. These autopsies were carried out by the demonstrators of Forensic Medicine department of Faisalabad Medical University. The data was entered on a pre-designed performa having variables such as demographics, time & place of death, region of body involved, weapon used & month of the year.

### Statistical Analysis

We categorized our variables in numeric form. Then the data was entered, organized, tabulated & analyzed in SPSS version 20.

## RESULTS

During the year 2017, 80 cases of firearm were autopsied at the postmortem unit of Allied Hospital, Faisalabad. Out of these 80 cases, 2 were suicidal in nature while rest of them were homicidal. These two cases were excluded from our study as these did not fit in our selection criteria. So that left us with a total of 78 homicidal cases to be analyzed.

As shown in Table-I, the demographic data of our study indicates that out of 78 cases autopsied, 67 (85.9%) were males & 11 (14.1%) was females. Out of the male victims 37 were living in urban areas of Faisalabad and 30 were residing in rural. While out of 11 females, 7 were residing in rural areas and 4 in urban.

Figure-1 presents region of body parts affected with respect to age groups. The figure depicts that the fatality rate was highest (46.2%) among our population which belongs to the productive age group i.e. between 21-40 years. Whereas, the least affected age group is more than 60 years (10.3%).

As far as the region of body is involved, Head & neck were most commonly affected in the age group ranging between 21-40 years and least affected between 41-60 years. The region of trunk comprising of Chest, Abdomen and Pelvis is also most commonly affected in 21-40 years & is least affected above 60 years of age. Our third regional category is extremities which are affected equally in all age groups & it is the least affected part of the body. When more than one region is involved, i.e. extremities and trunk, we have categorized them under Multiple. Again multiple body parts are mostly affected in age group of 21-40 years and are least affected in case of 0-20 years of age.

It is worth mentioning here that out of 78 cases only one victim was shot by smooth bored weapon (1.3%) while rest of them were hit by Rifled weaponries (98.7%).

Figure-2 displays the place of death of the deceased at a specific time of the day. According to it the common place of death is the crime scene i.e. (78.2%), showing that few survive to reach hospitals with fatal injuries. Whereas, 21.8% cases are reported to have succumbed to injuries in the hospital. We also reckoned time of the day of these causalities which were 30.8% in morning & 28.8% in the evening. While the percentage was exactly same in afternoon and midnight being 20.5% each.

Prevalence of homicidal deaths throughout the

year is illustrated in Figure-3 which represents that maximum homicidal demises due to firearm occurred during the initial months of the year i.e. January to March (41.03%) and least in the months of July to September (15.38%).

As presented in Table-II, three significant causes lead to death of victims in our study. Majority

of cases (60.25%) die due to injury to vital organs while 32.05% breathe their last owing to hemorrhage & shock. Rest of the cases (7.69%) passed away due to Septicemia. We also calculated p value by chi square test which is < 0.05. This shows a significant association between causes of death with region of body affected in our study.

		Resident		Total number (n)	Percentage%
		Rural	Urban		
Gender	Male	30	37	67	85.9%
	Female	7	4	11	14.1%
Total		37	41	78	
Percentage%		47.4%	52.6%	100%	100%

Table-I. Gender & Residence distribution among homicidal deaths in Faisalabad.

		Region of Body Affected				Total Cases (n)	Percentage %	P-Value
		Head & Neck	Trunk	Extremities	Multiple			
Cause of Death	Hemorrhage	8	9	3	5	25	32.05	0.003
	Septicemia	0	3	0	3	6	7.69	
	Vital organ injury	10	7	0	30	47	60.25	
Total		18	19	3	38	78		
Percentage %		23.07	24.35	3.84	48.71	100 %	100 %	

Table-II. Association of cause of death with region of body affected among Homicidal deaths in Faisalabad.

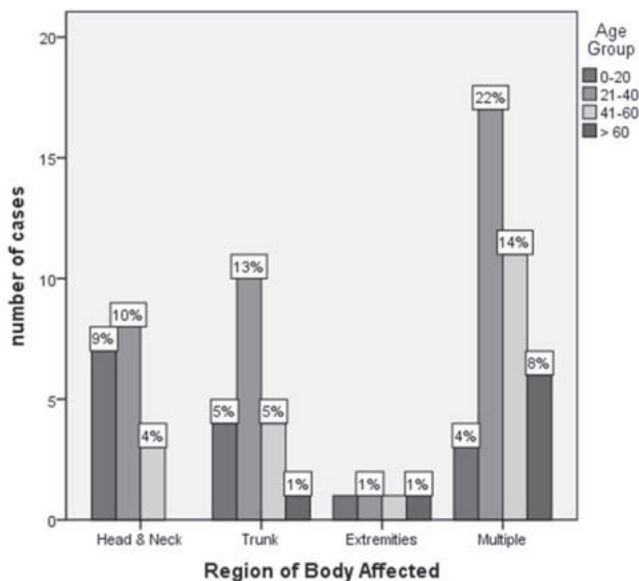


Figure-1. Distribution of age group & region of body affected among Homicidal deaths in Faisalabad.

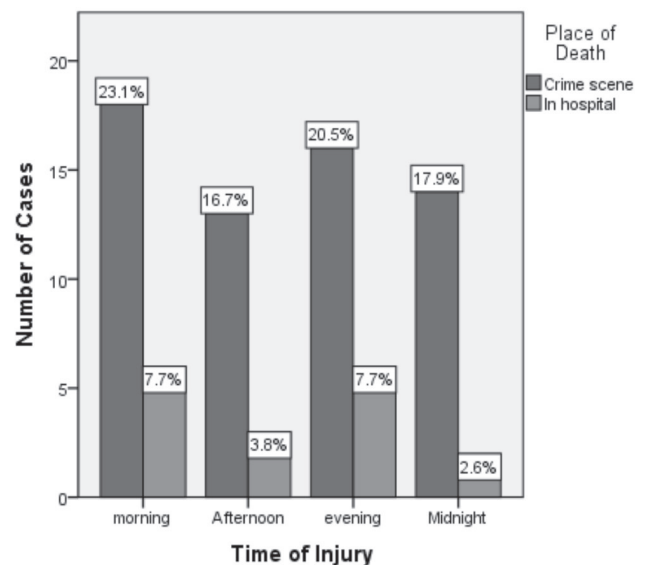
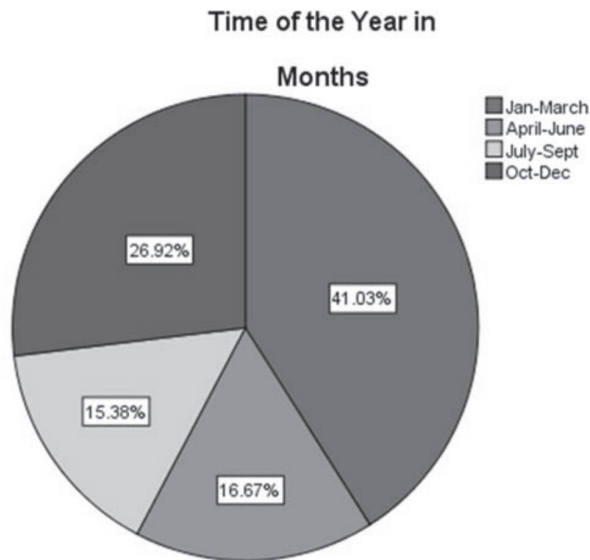


Figure-2. Distribution of time of injury & place of death among homicidal deaths in Faisalabad.



**Figure-3. Monthly prevalence of homicidal deaths in year 2017.**

## DISCUSSION

Firearm is reported to be one of the leading vector of a major public health problem i.e. homicide. The number of deaths by gunshots has risen to an alarming level in our part of the world because of poor implementation of existing gun laws in Pakistan.<sup>9,10,11</sup> In the provinces of Punjab & Sindh, people are of the opinion that having weapons is their right. Whereas people of Khyber Pakhtunkhwa & Baluchistan consider its use as their traditional norm.<sup>12</sup>

The present study was designed to explore this issue because such research was not done before in the city of Faisalabad which is the 3<sup>rd</sup> largest city of Pakistan.<sup>8</sup> Our study shows that males are more commonly victimized by gunshots in comparison to females. These results are very similar to results of other studies done in various cities of Pakistan like Lahore<sup>5</sup>, Faisalabad<sup>8</sup>, Karachi<sup>10</sup>, Multan<sup>11</sup>, DI Khan<sup>12</sup>, Bannu<sup>13</sup>, & Islamabad.<sup>14</sup> Internationally as well male preponderance is seen in Australia<sup>15</sup>, Bangkok<sup>16</sup>, US<sup>17</sup>, Malaysia<sup>18</sup> and Egypt.<sup>19</sup> This result may be explained by the fact that males have more aggressive attitude than females which very easily makes them susceptible to clashes. Besides this, males also often get involved in illegal activities; turning minor disputes into violent conflicts. Moreover,

in our study most of the victims belong to urban areas as compared to countryside. These results are similar to the results of national studies done in Lahore<sup>5</sup> & Quetta.<sup>20</sup> While internationally; the situation seems to be otherwise as purported by Hagras & Kharoshah.<sup>19</sup>

Our study set out with the aim of assessing the most commonly affected age group. To no surprise, majority of cases in our study were between their twenties & thirties. This is very consistent with the results of other studies done in India<sup>21</sup>, Bangkok<sup>16</sup>, Malaysia<sup>18</sup>, Egypt<sup>19</sup>, & Nigeria.<sup>22</sup> Similarly, the national figures of four provinces of Pakistan also match our results.<sup>5,10,12,13</sup> These findings further support the idea that people of age groups less than 20 & more than 40 years are victimized less. This is probably due to the fact that as young bread earners of their families, this independent population has to face more social or/ & financial challenges as compared to others. This mostly results in enmity and hostility amongst themselves.

While discussing different regions of the body being involved, multiple regions were affected in almost half of the cases (48%). Second most commonly affected regions were Head & Neck along with Trunk. Whereas, Extremities were least affected in our study. Literature search shows that same pattern exists in other studies which were done in Pakistan by Bukhari et al<sup>13</sup>, Khetran et al<sup>9</sup> & Arif et al.<sup>11</sup> However, our finding is in disagreement with studies conducted in United States<sup>17</sup>, Australia<sup>15</sup> and Nigeria<sup>22</sup> which showed that maximum deaths occurred due to head injury. This discrepancy could be attributed to the fact that in Pakistan more than 95% deaths from firearms are homicidal in nature.<sup>5,8,10</sup> In contrast, nearly two-thirds of firearm-related deaths were due to suicide in developed countries like Australia<sup>15</sup>, & United States.<sup>17</sup> While discussing his findings, Khetran et al also reported the same situation in Finland & New Zealand.<sup>9</sup> One of the probable explanations for this could be that a person with homicidal intention would aim the opponent at multiple sites making sure that the victim does not survive by targeting his vital organs. Whereas in case of a suicide, head is one

of the preferred site selected.

While evaluating the number of deaths during different times of the day we found the ratio of firearm fatalities were highest during peak hours of the day i.e. Morning & Evening. Whereas, gunshot losses were less during Afternoon & Night. Reviewing different national articles our figures match with the studies done in province of Baluchistan<sup>9</sup> & Khyber Pakhtunkhwa.<sup>23</sup> Our findings do not match with the study done in Malaysia<sup>18</sup> & Egypt.<sup>19</sup> Unfortunately, these daylight attacks and use of illegal firearms indicate poor law & order situation in our country which is mostly due to unemployment, poor literacy rate & unstable economic situation of our motherland.<sup>9</sup>

Furthermore, our findings show that majority of the deaths occurred at the crime scene rather than in hospital. These results are consistent with those given by Khetran et al<sup>9</sup> & Hagraas et al.<sup>19</sup> The suitable reason for which is that very few survive the serious wounds to reach the hospitals. However, our result is in contrast to the study done in United States by Guetschow et al in which 91% of patients got admission in the hospital which reflects their efficient emergency response system.<sup>24</sup>

## CONCLUSION

We conclude that unfortunately productive age group of our society is more victimized by gunshots and they are shot on multiple regions containing vital organs of our body.





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2	Kishwar Naheed	Data collection, Data interpretation.	
3	Rabia Ijaz	Manuscript writing, Data collection, Data interpretation.	
4	Sundus Ambreen	Critical Revision.	
5	Muhammad Aslam	Referencing, Critical Revision.	