A REVIEW OF FIREARM DEATHS IN FEMALE VICTIMS – AN EXPERIENCE OF FORENSIC MEDICINE DEPARTMENT IN PAKISTAN

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ABSTRACT

Objective: To review firearm deaths in female victims reported to the Department of Forensic Medicine and Toxicology, Khyber Medical College, Peshawar, Pakistan.

Material and Methods: Retrospective chart review was conducted on female victims of firearm deaths out of the total medico-legal postmortems performed at the Forensic Medicine Department from January-December 2018. The cases were identified on the basis of the police inquest report and postmortem findings were recorded for firearms. SPSS 20.0 was used as a statistical tool for the study.

Results: Overall with a total of 157 cases, 90 were identified as female firearm victims, which constituted 57.3% of the total. Head & Neck were the main target area in (49%) followed by the chest (33%). 62% of the victims aged between 21-40 years. The maximum firearm deaths were recorded during May. In urban and rural distribution, 60% of the cases were from rural areas while 40% from urban areas.

Conclusion: Young females were more prone to firearm injuries, in which head & neck were the main target area of the body. Maximum cases were from rural areas and May was the month with maximum number of cases.

Keywords: Firearms, Deaths, Female.

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INTRODUCTION

It is believed that internationally number of deaths due to firearm are increasing each year. Firearms are the most common types of weapons globally used for killing, which can either be suicidal or homicidal for which the frequency varies for different regions between 50-90% [1, 2]. The history of Europe is self-explanatory where one can easily appreciate short gun as important tools of murder, which in comparison with the subcontinent in particular with South Asia is quite a small number[3]. In South Asia, when we particularly talk about Pakistan, then the free availability of weapons is always off great concern particularly in regions under conflict zones like in Khyber Pakhtunkhwa and Baluchistan. The belt of FATA and the region of the Pak-Afghan border is thought to have easier access to weapons and has strong weaponry culture. The area was previously under Frontier Crime Regulation (FCR) and had no control by any law enforcement agency which made is much suitable for local manufacture of weapons and its use[4]. Countries have evolved laws for illegal possession of weapons through which a considerable decrease in the homicidal mortality rate is achieved[5].

In a worldwide analysis of the homicidal deaths some common behavioral pathways are observed, which are the leading causes of homicides[6]. Intolerance, family disputes, unemployment, state terrorism and many social massacres are identified as major behavioral patterns involved in homicides. The province, we are living in has a strong social structure of tribes where traditional norms are taken with great sensitivity and three Z's are identified as major reasons of homicide Zan (woman), Zar (wealth), and Zamin (piece of land)[7]. The social-psychological examination of such cases shows that most of the killings are due to extreme social pressure, which is a mean of avenge for family honor[8]. And mostly in all such cases it is the female gender of the society which suffers the

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most[8]. Now the questions arise that why people take such a harsh decision of their own? This can be answered by the lack of knowledge and trust of people on different law enforcement agencies at one end, while on the other end the delaying tactics adopted by different departments also contribute towards the hindrance towards justice deliverance[9]. The human body has many body parts, organs, systems, muscles and bones; each of which can separately or in combination be injured by any bullet entering the body[10].

This study was aimed to review different patterns of firearm deaths in female cases reported to Khyber Medical College, Peshawar. The study analyzed the general pattern of age distribution, targeted area and month of deaths which can then be utilized by the field experts in minimizing the death toll by use of different intervention measures like counseling education, proper schooling, and use of proper legislation.

MATERIALS AND METHODS

This retrospective chart review was conducted from January – December 2018 at Forensic Medicine and Toxicology Department of Khyber Medical College Peshawar, All the females with firearm deaths who were brought to the department along with complete record were included in the study and cases with incomplete documentation were excluded. Internal and external examination was conducted. The internal examination involved thorough check up of the three main cavities of the body that is a cranial cavity, thorax and abdominal cavity. The track of the projectile was followed and the extent of injury to various organs was determined. The characteristics of both entry and exit wounds were noted. The above data collected, was entered on a pre-designed proforma and the results were summarized as text or tables after entering the data in SPSS 20.0.

RESULTS

A total of 157 dead bodies of female victims were reported to the department and was subjected to postmortem during 2018, out of which 90 cases were a result of firearm injuries.

The frequently affected age group of females was between 21-40 years, making the highest percentage of 61% followed by 11-20 years which makes a total of 16.7% as given in Table-1. The main target areas was being the head and chest details given in table-2. Sixty percent of cases were reported to the department from rural, whereas 40% from urban areas. The rural to urban ratio was 1.5:1.

Majority of the postmortems were conducted during May 17(18.8%) followed by September 12(13.3%) shown in table-3.Table-1: Age wise Distribution of Female Firearm Victims

Table 1: Age wise Distribution of Female Firearm Victims.

Age group (years)	Number of victims (%)
0-10	7(7.8 %)
11-20	15 (16.7 %)
21-40	55 (61.1 %)
41-60	12 (13.3 %)
Above 60	1 (1.1 %)
Total	90

Table 2: Target area of body in female victims of firearm injuries.

Targeted area	No. of cases
Head & Neck	44 (48.9%)
Chest	30 (33.3%)
Abdomen	15 (16.7%)
Extremities	1 (1.1%)
Total	90

Table 3: Month wise distribution of firearm deaths in female victims.

Month	Number of Cases	Percentage %
January	6	6.6
February	5	5.5
March	6	6.6
April	6	6.6
May	17	18.8
June	3	3.3
July	11	12.2
August	6	6.6
September	12	13.3
October	8	8.8
November	6	6.6
December	4	4.4

DISCUSSION

Our study showed that injury due to firearm to the vital organs of the body was the main cause of death in the female victims of Peshawar district. In the United States, about 60% of all deaths are due to firearms, more than 25% of all the assaults, over 35% of all robberies and approximately half of all suicides[11]. The data collected at the department of Forensic Medicine and toxicology, Peshawar shows correspondence with studies conducted in other cities of Pakistan, in which female victims due to firearm showed prominence[12,13]. However, a few studies show that both firearm injuries and road traffic accidents form the most common cause of postmortem[14]; this indicates easy availability of the weapons and the increasing traffic in big and busy cities.

The study under discussion represents female victims of all age groups, the main bulk of the victims fall between 41-60 years of age that involves young and middle-aged females as shown in Table-1. Many studies from all over Pakistan give highest occurrence in young and middle-aged female victims of firearm[15-17]. In female victims of firearm, head and neck were the primary target area followed by the chest, as these areas contain the vital organs of the body (Table-2) similar pattern was observed in other studies as well.

The female victims of firearm were more from rural areas as compared to urban. This must be endorsed due to superior policing, greater literacy and employment with evenhanded income in urban areas. If we consider the data collected for the study, there arises a need for forming legislation at federal and local levels in order to address the gun violence in a number of ways, which includes restriction at the purchase of firearm weapons especially by the young generation. Introducing educational programs for parents as well as children in order to raise awareness about the hazards posed by the possession and use of weaponries. In our part of the world Jirga system can be used for highlighting the ethical values and substitute the feudal value systems. More over the manufacture of the weaponries should be discouraged by the law enforcing agencies in the tribal areas surrounding Peshawar, and only licensed weapons should be available for purchase. In addition to this, effective system at hospitals to provide emergency treatment to the victims of firearm should be available in order to reduce the rate of deaths due to firearm injuries[18, 19].

Lack of control on the manufacture and sale of firearm in a country can have serious security issues on its neighboring and other countries. Recently the Unites Nations Crime Prevention and Criminal Justice Commission passed a resolution in order to control and minimize the illegal trafficking of firearms[20]. Small sample size was a limitation of the study; however, a study on a larger scale may validate results of this study.

CONCLUSION

The study concluded that young females are more prone to firearm injuries and head & neck were the major part of the body affected by the firearm. The study also revealed that maximum cases were from rural areas and in the month of May.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under

Malik B: Concept, design, data collection, critical review of article.

Ahmed MS: Analysis and interpretation of data, drafting of the article, statistical expertise.

Hussain MA: Data collection.

Anwar HN: Drafting of the article and critical review.

Khan S: Drafting of the article.

Yousaf M: Critical review of the article.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.