

Medico-legal study of Violence against Females

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Abstract

Background	Violence against female is an important and serious public health and medico-legal problem. It carries important risk factor related to ill health of female and its consequences on physical, social, mental and reproductive health of women.
Objectives	To determine the type of fatal and non-fatal intentional injuries involving women, girls and young female kids and method used for such injuries and to reveal the magnitude of domestic violence of both physical and sexual types.
Methods	A cross-sectional study was carried out within 6 months period on 82 medico-legal female cases with intentional violence. All females (living and postmortem cases) were studied. Information was collected from the same victim or her relative (in non-living cases) through an interview, police reports and their medical reports. Digital photography was done for some interesting cases while radiological survey followed by complete autopsy for all non-living cases.
Results	The study showed that 57.3% were living subjects while 42.7% were postmortem victims. Regarding the living cases, their mean age was 20.61±9.37 years. Illiteracy constitutes 57.4% of them. All of them were referred as cases of violence directed to the genital area (sexual assault) but 72.3% were with no tear to the hymen. In post-mortem victims, the mean age was 28.6±12.84years. Housewives constituted 85.7% of them and 45.7% were having primary school level of education only. Burn was the main type of injury constituting 71.4%. In 65.71% were affected by sexual assault and in 69% of victims there were old hymen tears. In 80% death was due to suicide.
Conclusion	Violence was more common among living female and highest in the third decade of life. Majority were either with low level of education or having primary school level of education. All of the living females were sexually assaulted while burn was the main type of injury among the postmortem group.
Key words	Violence, Hymen, women, female.

Introduction

Violence against women is now well recognized human rights violation of worldwide significance. Women and girls are frequently victims of both physical and sexual violence by partners and acquaintance, as well as strangers⁽¹⁾.

Domestic violence can be defined as a set of systematic behavioral violence acts (physical, verbal, sexual or it may take the form of continual and habitual psychological, social or financial abuse) occurring within a household or

between family members⁽²⁾. It is said that one in every four women will experience domestic violence in her lifetime⁽³⁾

An estimated 1.3 million women are victims of physical assault by an intimate partner each year⁽⁴⁾. A study conducted in the two Scandinavian capitals, Oslo and Copenhagen regarding asphyxial homicide, 73% of the victims was the women. The most common method of causing death was manual strangulation⁽⁵⁾. Among rape homicide in South Africa, more often mechanism

of death was strangulation, asphyxia, or blunt trauma, rather than gunshot⁽⁶⁾.

Homicide victims are more likely married females usually killed by family members as shown in a study in United States of America⁽⁷⁾.

Sexual violence is also a common and serious public health and medico-legal problem affecting million of people each year throughout the world⁽⁸⁾. Whilst sexual violence can take many forms, the most widespread severe form is contact sexual violence and particularly rape with oral, anal or vaginal penetration⁽⁹⁾. In western countries it is estimated that about 25% of women experience intimate partner violence over their life time (i.e., UK 25%, Russia 25%, and Estonia 25%), lower than in other continents (i.e., USA 28%, Chile 26%, Kenya 42%, Egypt 35%, India 45%, and Thailand 20%)⁽¹⁰⁾. Females who are 20-24 years of age are at the greatest risk of non-fatal intimate partner violence⁽¹¹⁾. Most cases of domestic violence are never reported to the police⁽¹²⁾.

The objectives of this study was to determine the type of fatal and non-fatal intentional injuries involving women, girls and young female kids and method used for such injuries and to reveal the magnitude of domestic violence of both physical and sexual types.

Methods

A cross sectional study was carried out on within 6 months period started from the first of November 2012 till the end of May 2013 on 82 medico-legal cases (living and dead) referred to the Main Medico-legal Institute in Baghdad as cases of violence in female (physical, sexual or domestic).

Examination of the living victims

Before starting examination, information were collected about the act from police reports, through an interview with the case under study, eye witnesses, close relatives and medical reports if available. These information included age, marital status, level of education, perpetrator relationship, previous history of

such type of violence and habits such as smoking or drinking .

External examination was followed looking for any sign of trauma such as abrasion, contusion or different other types of wounds or previous scar. Searching for other evidences was done as well like blood or semen stains which might help the investigation.

Examination of the anogenital region was done looking for injuries to the labia and the inner thighs. The hymen was examined under good light source for the presence of recent or old tears.

Samples were taken for forensic biological testing. The cotton – wool swabs on sticks were used to take the following samples by touching gently on the mucosal surface of the interior of the vulva, labia and around the vaginal orifice and the margins and interior of the anus.

Examination of the post-mortem victims

Before autopsy examination the same information should be collected as in the living cases and external examination should be done for any type of trauma or trace evidence.

Swaps were taken from ano-genital area for detection of semen spots and send for biological exam. Five ml blood was withdrawn from femoral vein. Samples were collected in tubes and preserved with (1%) of sodium or potassium fluoride for detection of alcohol using Alcohol GC and other 10 ml of blood for toxicological screening tests, then stored in a refrigerator for future analysis using GC.

Digital photography was taken for some interesting cases.

Radiological examination was conducted for all cases reveal foreign bodies, bullets, bone injury, shells and their sites.

Complete autopsy examination was done for each cases to reveal the cause of death and record all external and internal injuries.

Results

The study revealed that among the total 82 cases, 47 cases accounting about 57.3% were living victims, while 35 cases accounting about

42.7% were dead victims.

Regarding the living victims, their mean age was 20.61±9.37 years with a range between 9-51 years. Thirty of them were within the age group 10-20 years old accounting for 63.8% while 6 only accounting for 12.8% were within the age group >30-40 years as shown in fig. 1.

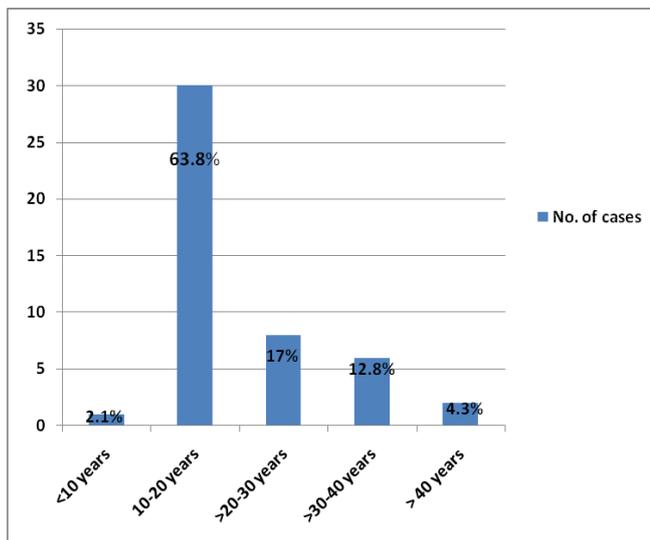


Fig. 1. Distribution of intentional violence in living victims according to age groups

Thirty four of them accounting for 72.3% of all living victims were unmarried females and the rest 13 (27.7%) were married.

As to the level of education, 27 of them (57.4%) were illiterate and those with primary school level were 11 (23.4%) while only 2 were with preparatory and 2 other were having undergraduate levels of education (4.3% for each) as listed in table 1.

Table 1. Distribution of intentional violence in living victims according to education

Education	No	%
Illiterate	27	57.4
Primary	11	23.4
Secondary	5	10.6
Preparatory	2	4.3
Undergraduate	2	4.3
Total	47	100.0

All of them were referred as cases of violence

directed to the genital area (sexual assaults).

On examination of the hymen, 34 of them (72.3%) were with no tear to hymen and the rest 13 were having old hymen tear. None of them were with recent tear.

Thirty one were with single exposure to sexual assault (66%) and 9 were having twice exposure (19.1%) while the remaining 7 (14.9%) were having three times exposure to such violence (Table 2).

Table 2. Distribution of intentional violence in living victims according to the frequency of assault

Frequency	No	%
1 time	31	66.0
2 times	9	19.1
3 times	7	14.9
Total	47	100.0

In 45 of them (95.75%), the perpetrator was stranger and in only 2 cases the perpetrator was a relative to the victims.

In postmortem cases, their mean age was 28.6±12.84 years with a range between 15-69 years. The highest number of victims (12) were within the age group 20-30 years accounting for 34.3% of them followed by 11 cases (31.4%) who were below 20 years of age while only 1 (2.9%) was above 60 years of age as shown in table 3.

Table 3. Distribution of intentional violence in postmortem victims according to age groups

Interval (years)	No	%
<20	11	31.4
20-30	12	34.3
>30-40	5	14.3
>40-50	4	11.4
>50-60	2	5.7
>60	1	2.9
Total	35	100.0

Married females were the majority of postmortem cases as it is seen in 24 of them represented in 69% and 11 were unmarried

represented in 31% of them.

Housewives were the commonest occupation as it is seen in 30 cases represented in 85.7% of them, other three of them were employee and only one was student while the other was retired as shown in table 4.

Primary school level of education was the commonest educational level seen in 16 of the accounting for 45.7% of them followed by illiterates in 10 cases accounting for 28.6% with other lower levels of education as seen in table 5.

Table 4. Distribution of intentional violence in postmortem victims according to occupation

Occupation	No	%
house wife	30	85.7
employed	3	8.6
student	1	2.9
retired	1	2.9
Total	35	100.0

Table 5. Distribution of intentional violence in postmortem victims according to Education

Education	No	%
illiterate	10	28.6
primary	16	45.7
secondary	5	14.3
preparatory	2	5.7
undergraduate	2	5.7
Total	35	100.0

Burn was the commonest type of intentional injury as it was seen in 25 victims represented in 71.4% of postmortem cases followed by bullet injury in 4 of them and fewer cases in other types of injury as shown in fig. 2.

Injury was seen in all over the body in 25 victims represented in 71.1% of them and those victims were cases of burn followed by the head as the second common anatomical site involved in intentional injuries as it was in 6 victims 17.1% of them as it is seen in fig 3. In 24 cases (69%) there were old hymen tears and in 11(31%) there were no hymen tears.

Among the total 35 cases, 23 cases accounting about 65.71% were sexual assault while the remainder 12 cases accounting about 34.29% were physical assault.

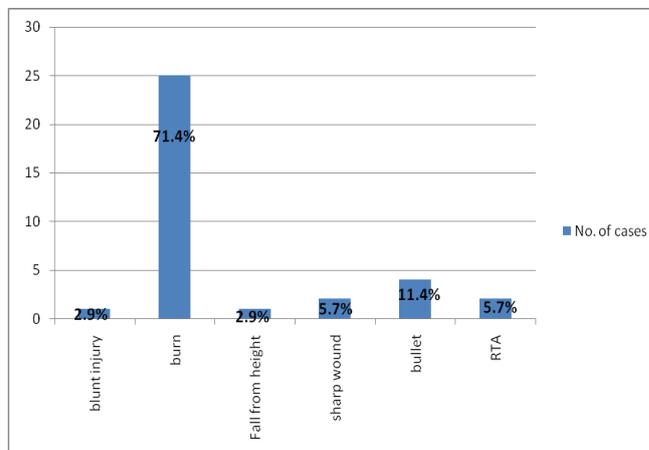


Fig. 2. Distribution of intentional violence in postmortem victims according to the type of injury

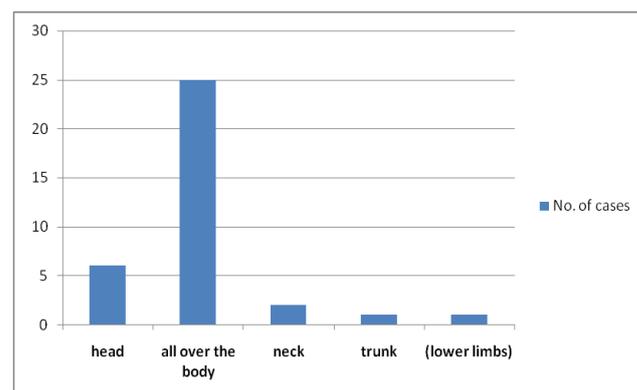


Fig. 3. Distribution of intentional violence in postmortem victims according to the anatomical region

Suicide was the commonest manner of death in post-mortem victims as it was reported in 23 of them accounting for 65.71% while homicide committed by a stranger was seen in 12 cases accounting for 34.29%.

None of the living and post-mortem victims were proved to be under the effect of alcohol or other drugs as their toxicological screening tests results were negative.

Discussion

Intentional violence against female especially women still considered a global problem. The

mean age of the living cases was 20.61±9.37 years. These results are almost similar to the results of a previous study done in Bangkok⁽¹⁴⁾. While it disagreed with the result of another study done in USA where most of the females were women 20-24 years old. This could be due to implantation of legislative law against any assault to young girls in USA⁽¹³⁾.

Most of the living cases were unmarried while in another study the majority were married⁽¹⁶⁾. This might be due to large population size of this study and the lower age group affected in the current study.

Most of the living cases were illiterate due to lack of education as a result of low socio-economic status of most of them.

All of the assaults were reported as sexual in type and towards the genital area (rape) after kidnapping. This finding agreed with finding of another study⁽¹⁶⁾.

On examination, most of them were found with intact hymen and the rest were found with old tear. This could be due to that most of them were referred on allegation or untrue assault in order to gain money or threatening him to marry her.

Almost all of them were attacked by a stranger perpetrator. This finding contradicts the finding of other study in which most of the perpetrator was known to the female⁽¹¹⁾. This is explained by the fact that the perpetrator prefers to attack a stranger female than to attack a relative or a female knows him in order to escape punishment by the law.

Regarding post-mortem victims, their mean age was 28.6±12.84 years with a range between 15-69 years and the highest number was within the age group 20-30 years. These results were similar to the results found in other studies in Punjab, in New York city and Faisalabad^(14,16).

Numbers of married victims were more than double the number of unmarried. This was because all of them were subjected to fatal intentional physical trauma. This result is similar to the result found in a previous study in Pakistan⁽¹⁶⁾.

Most of them were house wives. Being at home as house wife makes woman more vulnerable to domestic violence which might be inflicted from her husband or by herself due to the stress and tension she might suffer during her work in a difficult socio-economic status.

Highest percentages of them were having primary level of education only; next comes the illiterate group. This is because of lower commitment of the community in general toward the female in Iraq to continue their education.

Burn was the highest type of injury among postmortem cases. All of them were suicidal in manner escaping from the feeling of being disgraced in their society. This result disagreed from the result of another study which found that burn cases were only minority from the total number where other forms of abuse were inflicted^(14, 16).

Multiple anatomical regions were affected in most of the victims. Those were cases of burn. Burn was suicidal in manner therefore the injuries were severing, deep and massive due to the use kerosene.

Physical type of injury was the only type of intentional injury seen in postmortem cases and 69% of them were having old hymen tears representing the married group while the rest were with intact hymen.

The perpetrator was stranger in only 34.29% of victims. This was because most of the postmortem victims attempted suicide by burning them self while females have been most often victimized by someone they knew⁽¹¹⁾.

Lab. tests for alcohol and drugs in both living and the postmortem groups were negative. This fact was expected as they are prohibited in Islamic law.

In conclusion, violence was more common among living female and highest in the third decade of life. Majority were either with low level of education or having primary school level of education. All of the living females were sexually assaulted while burn was the main type of injury among the postmortem group.

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Author contribution

Dr. Al-Giboori has designed the study and co-writes the manuscript; Dr. Al-Saadi has collected and analyzed the data and write the manuscript.

Conflict of Interest

The Authors declare no conflict of interest.

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References

1. Krantz G, Garcia-Moreno C. Violence against women. *J Epidemiol Commun Health*. 2005; 59: 818-21.
2. Nordrum I, Eide TJ, Jorgensen L. Medico legal autopsies of violent deaths in northern Norway 1972-1992. *Forensic Sci Int*. 1998; 92: 39-48.
3. Gilliland MG, Spence PR, Spence RL. Lethal domestic violence in eastern North Carolina. *N C Med J*. 2000; 61: 287-90.
4. Gracia E, Herrero J. Acceptability of domestic violence against women in the European Union. A multilevel analysis. *J Epidemiol Commu Health*. 2006; 60: 123-9.
5. Rogde S, Hougen HP, Poulsen K. Asphyxia homicide in two Scandinavian capitals. *Am J Forensic Med Pathol*. 2001; 22: 128-33.
6. Abrahams N, Martin LJ, Jewkes R, et al. The epidemiology and the pathology of suspected rape homicide in South Africa. *Forensic Sci Int*. 2008; 178: 132-8.
7. Wu B. Homicide victimization in California: an Asian and non-Asian comparison. *Violence Vict*. 2008; 23: 743-57.
8. Kucuker H. Analysis of 268 Child and adolescents victims of sexual assault and the legal outcome. *Turkish J Pediatr*. 2008; 50(4): 313-6.
9. Johnson K, Scott J, Rughita B, et al. Association of sexual violence and human rights violation with physical and mental health in territories of the Eastern Democratic Republic of Congo. *JAMA*. 2010; 304(5): 553-62.
10. Kyriacou DN, Anglin D, Taliaferro E, et al. Risk factors for Injury to women from domestic violence. *N Engl J Med*. 1999; 341(25):1892-1898.
11. U.S. Department of Justice, Bureau of Justice Statistics, "Intimate Partner Violence in the United States," December 2006.
12. Frieze IH, Browne A. Violence in Marriage. In Ohlin LE, Tonry MH (eds.) *Family Violence*. Chicago, IL: University of Chicago Press, 1989.
13. Unicef. Domestic violence against women and girls. Innocenti research center, innocent Digest, 2000, 8.
14. Stayton C, Olsan C, Thorpe L, et al. Intimate Partner Violence against Women in New York city, 2008 Report from the New York city Department of Health and Mental Hygiene 2010.
15. Saeed A, Parveen H, Zafar T. Fatal Homicidal Violence against women and girls in Faisalabad. *APMC* 2010; 4(2): 150-4.
16. Bettencourt A. Violence against women in Pakistan, Human Rights Advocacy Clinic, Litigation Report, Spring, 2000.

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