Epidemiological study of injuries caused by violence and conflict in forensic medical records of selected cities of Sistan and Baluchistan province in 2020

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ABSTRACT

Background and Aims: Interpersonal violence is a socially traumatic and unpleasant phenomenon. These violence-related injuries are sometimes irreparable and can become a permanent problem. Violence in Iran is one of the five most socially harmed and has increased dramatically in recent years, therefore the present research aimed to investigate epidemiological study of injuries caused by violence and conflict in forensic medical records of selected cities of Sistan and Baluchistan province in 2020 considering this subject must be one of our priorities. Methods: This study was a descriptive study performed in forensic medicine centers of two cities in Sistan and Baluchistan province, Iran. The population consisted of existing citations and records, sample size based on similar studies and the recommendation of professors, all available records were considered and census method was used to select the samples. The data gathering tool consisted of two sections: demographic information and violence and conflict. Content validity method and reliability test were used to determine the validity and reliability. Data were analyzed using SPSS24 software. Results: The results showed that the majority of the sample was 20-29 years old, male, married, self-employed and high school graduated, living in the eastern part of the city, with no history of mental illness, domestic violence, child abuse, and spouse abuse. The majority of the study units did not use any drugs. The most violent were beatings and bullying. It included several organs such as limbs, soft tissue damage with bleeding. Conclusion: The results of this study indicate the importance of epidemiological analysis of violence and conflict in the provinces under study and show that appropriate solutions and culture building, as well as increasing awareness of the impact of violence and conflict on individuals and their injuries.

Keywords: Epidemiological survey, forensic citation, violence and conflict damages

Introduction

The results of field studies show an increase in the incidence of violence and conflict in the world. Violence is one of the five most social harms and is most often associated with issues such as divorce, marginalization, addiction, and delinquency. Research also shows that most violent people are not inherently mentally disturbed, but become angry in an instant.

The World Health Organization (WHO) estimates that approximately 1.6 million people in the worldwide die each year because of violence. Violence and conflict are the leading causes of death for people aged 44-15, especially men. Recent estimates of annual homicides in various countries include the following: 55,000 homicides in Brazil, 25,000 homicides in Colombia, 20,000 homicides in South Africa, 15,000 homicides in Mexico, 14,000 homicides in the United States, 11,000 homicides in Venezuela.
Conflict and violence are tools used to control others. The conflict is wide-ranging and can range from physical conflict between two people to war between two nations. The World Peace Index, released in June 2010, ranks 149 countries in the world, in terms of non-violence, with Switzerland leading the way.[4] The results of the study show that 76.2% of detainees were men in 2006. In 2004, women made up only 7.1% of the prison population. Criminals were often in the category of crimes such as domestic violence, sexual harassment, sexual violence and rape, and the most common sex offenders were men, and women were mainly victims. Research shows that in different societies, 25% of all women have been victims of violence at some point in their lives.[5]

Research shows that violence is very common in developed countries and also it is increasing. The most advanced countries in the world, such as the United States, Canada, Sweden and the United Kingdom, have the highest rates of violence after Iran, Afghanistan, Pakistan, Sudan, and India.[6] Zimbabwe also ranks ninth in terms of crimes. According to the latest figures from the Zimbabwean National Statistics Center, 500 women are abused every month and 16 women are abused daily. Of the reported cases, 780 were children aged 11 to 16 years and 276 were children aged 5-10 years.[7] Venezuela ended 2016 with 28,479 violent deaths and a rate of 91.8 tons per 100,000 people. Studies show that Caracas, the capital of Venezuela, is the most violent city in the world. In addition, only 8-9 murderers are arrested for every 100 murders in the country.[8]

The Gallup Institute has named Iran, Iraq, and South Sudan as the world’s most controversial countries, respectively. In its 2017 Annual Report on Global Emotions, the Gallup Thoughts Institute identified the Iranian people as the angriest people in the world.[9] The report examines the situation in 142 countries around the world, in which 50% of Iranians are angry and in Iraq is 49%, and the figure in South Sudan is 47%. In addition, Greece is the 67th most populous country in the world. According to the Gallup Institute, 70% of the world’s population enjoy life, smile, feel calm, and they are respectful.[10,11]

In Iran, violence is one of the five social harms that have the highest statistics. Violence is associated with divorce, marginalization, addiction and delinquency. Violence in Iran has increased dramatically in recent years and these days the figures have risen sharply compared with previous years. Iran’s position among the world’s countries in terms of violence and street conflicts is at the top of the world.[12] The motive for violence varies from country to country. For example, in the United States, it may be more because of the release of firearms, but in Iran the combination of economic and social factors leads to violence.[3]

According to the Forensic Medicine Organization, in 1994, the number of clients was 407,893 injured in the conflict. This number was 401,335 at first eight months of 1397, and out of the total number of clients, 276,393 were men and 124,942 were women.[13] Violence statistics show a 38% share of Tehran women in the first quarter of 1997. It is in the capital. The report of forensic medicine shows that in April, May and June of 1998, 25,005 people referred to the forensic medicine center of the province due to injuries caused by the conflict, which is compared to the same period last year. The number of clients was reported to be 16,429, an increase of 2%.[14] The cornea formed on the surface of the body was bruised.[15] Usually, most conflicts are between young people because they have characteristics such as immaturity, inexperience, high energy and irritability, and are prone to conflict and its consequences.[16]

Regarding the causes of conflict and violence, we can say that there are issues such as economic problems, family problems, the spread and promotion of violence through the mass media, unsolvable psychological problems, the existence of the sense of power in people, problems in the educational system and using drugs plays an important role in conflict and violence in society.[17]

One of the reasons for the conflict between people in a society is the decline of social justice, which reducing their tolerance threshold. In addition, problems and issues of failure in society, such as unemployment and reduction in marriage rates, are somewhat annoying for people.[18] In these circumstances, individuals cannot communicate properly, and a set of problems, entanglements, and degradation of social justice cause young people to become somewhat frustrated with life.[19]

Furthermore, violent behaviors in parents who are self-defeating over their children can lead to double violence in children and psychological problems in both, resulting in degradation of tolerance in individuals, in which case people do not know how to get out of crises. Conflict occurs.[19] These conditions are also exacerbated by a lack of social skills, acceptance, and a lack of entertainment and vitality.[20]

Conflict and violence cause permanent or temporary damage. Injuries which cause of permanent disability will have many social, emotional, and economic impacts for the injured person.[21] In addition to financial violence, for example, in fights, violence pays a ransom, and in addition for going to the police station, the prosecutor’s office, etc., people have to leave their work and education. The community also bears the economic burden of violence.[22]

Sociologists also attribute the existence of inappropriate social structures in a society to the escalation of violence. Social pressure causes failure in achievement of one's goals in his life, and this can pave the way for a tendency to various social harms. Another manifestation of social pressure is lowering the tolerance level, which can lead to anger and violence.[13]

Emotional, economical, and occupational failures also increase the likelihood of violence. As a result of successive...
emotional failures, a person loses self-confidence and often becomes involved in violence. The results of many studies have shown that people in society do not tolerate economical failures because with each failure, they lose all or most of their assets. So it is very difficult for them to control their anger.\(^{[13]}\)

Family problems are one of the main causes of anger. Research shows that people in families with fewer problems and conflicts are less likely to manage their anger. A study by General Motors found that 89% of people with work-related injuries had different family life problems and argued at home with family members before starting work during the day.\(^{[1]}\)

The phenomenon of conflict is strongly influenced by cultural, traditional and tribal values. With the growth of cultural issues, violence becomes less and less committed to the law. Violence and conflict are among the issues that in some cultures are indicators of power or defense of social, cultural and family status. Education includes illiteracy and illiteracy, poor law, low tolerance thresholds, poor social norms, and programs that promote violence and aggression.\(^{[23]}\)

Today, in some societies, tools for overcome others and vent anger, spraying acid, using cold and hot weapons, and even nuclear weapons. Children who are subjected to verbal or physical violence in any educational environment feel insecure and they will hate school, the consequences of which will be manifested in academic life in the form of academic failure or dropping out of school.\(^{[24]}\) Have unhealthy relationships with others with job responsibilities. Therefore, to investigate violence, analyze the roots and provide Comprehensive and scientific solutions are needed to find solutions and prevent them in order to remove the obstacles of social and economic development.\(^{[23]}\)

Due to the fact that a similar study has not been conducted in Sistan and Baluchistan provinces until the research was conducted, and considering the high number of violence, conflict and conflict in this province, the researcher decided to conduct a study on the epidemiological study of damage caused by Violence in the selected cities of Sistan and Baluchistan province during the past year.

**Research Methodology**

This study was a descriptive study conducted in two forensic medicine centers in Sistan and Baluchistan. Based on similar studies and the advice of professors, the sample size of all available files was considered to be 1840 by census method.

**Criteria for entering the study:**

- The existence of a case in the forensic medicine of two cities in the past year (from the beginning to the end of 2020).

**Criteria for leaving the study:**

- Defective document were removed from the study.

The data collection tool in this study was the data collection form. This form included two sections of demographic information and injuries caused by violence and conflict in selected cities of Sistan and Baluchistan province in 2020. The data collection form was based on authoritative books and scientific articles related to the research topic, as well as using the guidance of professors. To determine the validity of the form, the content validity method was used. University professors were placed and after making the necessary corrections, the final questionnaire was compiled and used for research.

For reliability, the research method was used again. To do this, the data collection form was completed by 10 people and then after ten days the form was completed again by the same people and the results were analyzed and Cronbach's alpha correlation coefficient was calculated. In this research, before collecting information and starting to extract data, all questions of data collection form were coded and analyzed using SPSS24 information software and descriptive statistical methods such as mean and standard deviation as well as frequency distribution tables were used to categorize and summarize the findings, as well as inferential statistics.

**Findings**

In the field of “Frequency study of some demographic characteristics of individuals”, the results showed that the highest percentage of samples (40.2) were 29-20 years of age and the lowest of them (2.4%) were 69-60 years old. The highest figure of the research's units was male (87.4%) and the lowest (12.6%) were female. The highest percentage was for the married people (60.1%) and the lowest percentage among them refers to those whose wife had died (2.9). The highest percentage (40.5) of the surveyed units refers to people who had freelance jobs while the lowest one (3.8%) was for employees. The highest percentage (29.9%) of the diploma research units and the lowest percentage (1.4%) were higher than the bachelor's degree.

The highest percentage (32.6%) of the research's units lived in the east and the lowest percentage (8.2%) lived in the south of the city. The highest percentage (84/73) of the research's units had no history of the disease and the lowest of them (15.27%) had a history of mental illness. The highest percentage (92/99) of the surveyed units had no history of domestic violence and the lowest one (7.02%) had a history of domestic violence. The highest percentage (82.6%) of the research's units had no history of child and spousal abuse and the lowest figure (17.4%) had mentioned history.

The highest percentage (87/77) of the research's units lost control and the lowest (12.17%) intended to harm others. The highest figure of murders was non-eminent (73.8%) and the
lowest (26.2%) was honorary. The highest percentage (70.85%) of the victims were without a history and the lowest of them (1.63%) had sexual problems. The highest percentage (68.15%) of people with physical factors and the lowest of them (0.22%) were affected by chemical agents. The highest percentage (54.0%) of violent people was foreigners and the lowest percentage (0.9%) was mothers.

Regarding the frequency of drug use in the research samples, the results showed that the highest percentage of research’s units do not consume substances (45.2%) and the lowest percentage (1%) consume grass [Table 1]. Contrary to the present results, Benbo et al. (2018) and Ahmadi et al. (2017) showed that the majority of research samples used drugs at the time of the conflict. 

In the field of “Frequency study of all types of violence and conflict in forensic medicine citations, which includes various types of violence, the results showed that the highest percentage (74/7) of research units with beatings and the lowest (3.2%) through biting the case. Physical violence has been included [Table 2]. The results of the research of Purl et al. (2016) and Haji Nasiri et al. (2016) also showed that the majority of research samples were beaten by beatings.

The results of research on verbal violence show that the highest percentage (72.9%) of the research units were subjected to swearing and the lowest of them (27.1%) were subjected to verbal violence by shouting [Table 2]. The results of research by Stockman et al. (2015), Avesta et al. (2014) and Wang et al. (2014) also showed that the majority of research samples were abused through aggression and defamation. The results of the research on rape and coercion show that the highest percentage (55.4%) and the lowest (2.6%) were raped [Table 2]. The results of Joiner et al’s (2016) research were in line with the results of the present study and showed similar results. Regarding the study of the frequency of injuries caused by violence and conflict in forensic medicine citations, the research results show that the highest percentage (91/74) of the research units suffered physical injuries and the least of them (2.23%) committed suicide [Table 3]. Cook et al. (2016), Ali et al. (2015), Folo et al. (2013) also showed that the majority of research samples were physically damaged.

The results of research on the injured limb show that the highest percentage (35.8%) of the lesion, several cases of body parts and the lowest percentage (7.6) were related to the chest and legs. The results of a study by Grazino et al. (2013), Laguan et al. (2014), George et al. (2016), and Sigala et al. (2017), Caracort et al. (2014) also showed that the majority of research samples at the time of the conflict suffered multiple lesions have been removed from the body.

### Table 1: Frequency distribution of consumables

| Type of drug | Numerical | Percent |
|--------------|-----------|---------|
| Opium        | 366       | 19.9    |
| Juice        | 296       | 16.1    |
| Heroin       | 78        | 4.2     |
| Hashish      | 81        | 4.4     |
| Grass        | 19        | 1       |
| Crystal      | 20        | 1.1     |
| Crack        | 48        | 2.6     |
| Others       | 101       | 5.5     |
| Does not consume | 831 | 45.2  |
| **Total**    | **1840**  | **100** |

### Table 2: Frequency distribution of types of violence

| Physical violence | Numerical | Percent |
|-------------------|-----------|---------|
| beating           | 1375      | 74.7    |
| Kick              | 407       | 22.1    |
| To bite           | 58        | 3.2     |
| Verbal violence   |           |         |
| shout             | 499       | 27.1    |
| Swearing          | 1341      | 72.9    |
| Rape and coercion |           |         |
| Rape              | 48        | 2.6     |
| Coercion          | 772       | 42.0    |
| None              | 1020      | 55.4    |
| **Total**         | **1840**  | **100** |

### Table 3: Distribution of postoperative injuries

| The result of violence | Percent | Numerical |
|------------------------|---------|-----------|
| Murder                 | 5.98    | 110       |
| Suicide                | 2.23    | 41        |
| Physical injury        | 91.74   | 1688      |
| No answer              | 0.05    | 1         |
| **Total**              | 100     | 1840      |

### Conclusion

In any health research, one of the important goals is to announce the results of the research so that the quality of health care can be improved and even help to improve it. On the other hand, any study can identify problems in society and provide solutions. It is suitable for eliminating problems, especially if the problem is related to physical, mental, social and cultural health, the medical team and one of its important pillars, the nurse, can use the results due to its close relationship with society.

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### Conflicts of interest
There are no conflicts of interest.

### References

1. Saffari M, Arslan SA, Yekaninejad MS, Pakpour AH, Zaben FA, Koenig HG. Factors associated with domestic violence against women in Iran: An exploratory multcenter
community-based study. J Interpers Violence 2017;6:73-7.

2. Hajnasiri H, Gheshtilagh RG, Sayehmiri K, Moafi F, Farajzadeh M. Domestic violence among Iranian women: A systematic review and meta-analysis. Iran Red Crescent Med J 2016;18:e34971.

3. World Health Organization. Definition of violence. Available from: http://www.who.int/violenceprevention/definition/en/ [Last accessed on 2019 Jan 08].

4. Joyner K, Mash RJ. The value of intervening for intimate partner violence in South African primary care: Project evaluation. BMJ Open 2016;1:e000254.

5. Graziano M, Pulcini J. Gun violence and the role of healthcare: A confusing state of affairs. Am J Nurs 2013;113:23-5.

6. Lima LH, Mattar R, Abrahao AR. Domestic violence in pregnant women: A study conducted in the postpartum period of adolescents and adults. J Interpers Violence 2016;34:1183-97.

7. Norris AH, Decker MR, Weisband YL, Hindin MJ. Reciprocal physical intimate partner violence is associated with prevalent STI/HIV among male Tanzanian migrant workers: A cross-sectional study. Sex Transm Infect 2017;93:253-8.

8. Ager J, Abebe B, Ager A. Mental health and psychosocial support in humanitarian emergencies in Africa: Challenges and opportunities for engaging with the faith sector. Rev Faith Int Aff 2014;12:72-83.

9. Amemiy A, Fujisawa T. Association between maternal intimate partner violence victimization during pregnancy and maternal abusive behavior towards infants at 4 months of age in Japan. Child Abuse Negl 2016;55:32-9.

10. Berle D, Hilbrink D, Russell-Williams C, Kiely R, Hardaker L, Garwood N, et al. Personal wellbeing in posttraumatic stress disorder (PTSD): Association with PTSD symptoms during and following treatment. BMC Psychol 2018;6:7.

11. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Years of potential life lost. 2015. Available from: http://www.cdc.gov.

12. Cheung SY, Phillimore J. Gender and refugee integration: A quantitative analysis of integration and social policy outcomes. J Soc Policy 2017;46:211-30.

13. Bazargan-Hejazi S, Medeiros S, Mohammad R, Lin J, Dalak K. Patterns of intimate partner violence: A study of female victims in Malawi. J Inj Violence Res 2016;5:38-50.

14. Graham-Bermann SA, Cater AK, Miller-Graff L, Howell KH. Adults' explanations for intimate partner violence (IPV) during childhood and associated effects. J Clin Psychol 2017;73:652-68.

15. Nadda A, Malik JS, Rohilla R, Chahal S, Chyal V, Arora V. Study of domestic violence among currently married females of Haryana, India. Indian J Psychol Med 2018;40:534-9.

16. Madhani Fl, Karmaliani R, Patel C, Bann CM, McClure EM, Pasha O, et al. Women's perceptions and experiences of domestic violence: An observational study from Hyderabad, Pakistan. J Interpers Violence 2017;32:76-100.

17. Easterby-Smith M, Thorpe R, Jackson PR. Management Research. Sage; 2012.

18. Andarge E, Shiferaw Y. Disparities in intimate partner violence among currently married women from food secure and insecure urban households in South Ethiopia: A community based comparative cross-sectional study. Biomed Res Int 2018;2018:4738527. doi: 10.1155/2018/4738527.

19. Muldoon KA, Deering KN, Feng CX, Shoveller JA, Shannon K. Sexual relationship power and intimate partner violence among sex workers with non-commercial intimate partners in a Canadian setting. AIDS Care 2015;27:512-9.

20. Hamel J. Facts and statistics on domestic violence at a glance. DV research. 2018. Available from: https://domicitviolenceresearch.org/domicit-violence-facts-and-statistics-at-a-glance/

21. Udo IE, Sharps P, Bronner Y, Hossain MB. Maternal intimate partner violence: Relationships with language and neurological development of infant and toddlers. Matern Child Health J 2016;20:1424-31.

22. Juillard C, Smith R, Anaya N, Garcia A, Kahn JG, Dicker RA. Saving lives and saving money: Hospital-based violence intervention is cost-effective. J Trauma Acute Care Surg 2015;78:252-8.

23. Broadnax D, Waldrop RT, Claridy MD, Booker EA, Alema-Mensah E. Association between intimate partner violence and mentally unhealthy days in women in the U.S. J Ga Public Health Assoc 2016;6(Suppl 1):263-70.

24. Macdonald J, Golinelli D, Stokes RJ, Bluthenthal R. The effects of business improvement districts on the incidence of violent crimes. Inj Prev 2016;16:327-32.

25. Murphy M, Bingenheimer JB, Ovince J, Ellsberg M, Contreras-Urbina M. The effects of conflict and displacement on violence against adolescent girls in South Sudan: The case of adolescent girls in the Protection of Civilian sites in Juba. Sex Reprod Health Matters 2019;27:181-91.

26. Benebo FO, Schumann B, Vaezghasemi M. Intimate partner violence among women in Nigeria: A multilevel study investigating the effect of women's status and community norms. BMC Womens Health 2018;18:136.

27. Ahmadi R, Soleimani R, Jalali MM, Yousefnejhad A, Roshandel Rad M, Eskandari A. Association of intimate partner violence with sociodemographic factors in married women: A population-based study in Iran. Psychol Health Med 2017;22:834-44.

28. Purtle J, Carter P, Cunningham R, Fein JA. Treating youth violence in hospital and emergency department settings. Adolesc Med State Art Rev 2016;27:351-63.

29. Stockman JK, Hayashi H, Campbell JC. Intimate partner violence and its health impact on disproportionately affected populations, including minorities and impoverished groups. J Womens Health 2015;24:62-79.

30. Usta J, Taleb R. Addressing domestic violence in primary care: What the physician needs to know. Libyan J Med 2014;9:23527. doi: 10.3402/ljm.v9.23527.

31. Wong J, Mellor D. Intimate partner violence and women's health and wellbeing: Impacts, risk factors and responses. Contemp Nurse 2014;46:170-9.

32. Wirtz A, Perrin N, Desgroppe A, Phipps V, Abdi AA, Ross B, et al. Lifetime prevalence, correlates and health consequences of gender-based violence victimisation and perpetration among men and women in Somalia. BMJ Global Health 2018;3:11-12. doi: 10.1136/bmjgh-2018-000773.

33. Cook PJ, Songman K. Birthdays, schooling, and crime: Regression-discontinuity analysis of school performance, delinquency, dropout, and crime initiation. Am Econ J 2016;8:833-57.

34. Ali NS, Ali FN, Khuwaja AK, Nanji K. Factors associated with intimate partner violence against women in a mega city of South-Asia: Multicentre cross-sectional study. Hong Kong Med J 2015;20:297-303.

35. Fulu E, Jewkes R, Roselli T, Garcia-Moreno C; UN
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Multi-country Cross-sectional Study on Men and Violence research team. Prevalence of and factors associated with male perpetration of intimate partner violence: Findings from the UN multi-country cross-sectional study on men and violence in Asia and the Pacific. Lancet Glob Health 2013;1:e187-207.

36. Lagdon S, Armour C, Stringer M. Adult experience of mental health outcomes as a result of intimate partner violence victimization: A systematic review. Eur J Psychotraumatol 2014;5. doi: 10.3402/ejpt.v5.24794.

37. George J, Nair D, Premkumar NR, Saravanan N, Chinnakali P, Roy G. The prevalence of domestic violence and its associated factors among married women in a rural area of Puducherry, South India. J Family Med Prim Care 2016;5:672-6.

38. Sigalla GN, Mushi D, Meyrowitsch DW, Manongi R, Rogathi JJ, Gammeltoft T, et al. Intimate partner violence during pregnancy and its association with preterm birth and low birth weight in Tanzania: A prospective cohort study. PLoS One 2017;12:e0172540.

39. Karakurt G, Smith D, Whiting J. Impact of intimate partner violence on women’s mental health. J Fam Violence 2014;29:693-702.

40. Singh N, Shukla SK. Does violence affect the use of contraception? Identifying the hidden factors from rural India. J Family Med Prim Care 2017;6:73-7.