

## Pattern and severity of the injuries in the victims of violence

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Received: 11 Nov 2015      Accepted: 27 Jan 2016

### Abstract

**Background and Objective:** Our aim was to evaluate the prevalence and population ratio of violence in our center which is one of the tertiary referral centers of trauma in Tehran. We also aimed to evaluate the motivations of the struggle, the instrument used, and the type of injuries in the patients who had referred to us after a struggle.

**Methods:** In this cross-sectional retrospective study, all 152 patients who had referred to Rasool Akram Hospital for violence and struggles between October 2009 and March 2010 were evaluated. A self-made questionnaire containing data- including age, sex, level of education, job, time of the struggle, previous history of reference to the Forensic Medicine Organization for violence, history of alcohol and substance abuse, type of the injury, the instrument used for mayhem, and the part of the body injured- was filled. The data was entered into the SPSS software version 11.5 and analyzed using t test (for quantitative) and chi 2 test (for qualitative) variables.

**Results:** 115 (75%) patients were female and 37 (25%) were male. Most of the patients were in the age group of 10 to 20 years (n=66; 43.4%). Most of the patients' level of education was 8th grade (n=66; 43.4%). They were mostly housewives (n=33; 54.6%) and 24 (15.8%) were unemployed. Most had referred after domestic violence (n=106; 61.7%). A total of 73 (48%) had the previous history of violence and reference to the Forensic Medicine Organization. History of alcohol, opium, and stimulants were present in 14 (9.2%), 23(15.1%), and 12(7.9%), respectively. The most common type of injuries were abrasions and bruises (n=113; 74.3%). The most common location of the injury was in the head and neck (n=70; 46.1%).

**Conclusion:** Attention to the social position of women and youth is warranted in our country. Especially, regarding the high prevalence of domestic violence, educating women to cope with dangerous situations seems quite necessary.

**Keywords:** Injuries, Victims, Violence

### Introduction

Aggression is defined as any violent behavior performed with the aim of harming or injuring another person to prevent the opponent from the same act. In 1992, a total of 1,932,274 cases of violence (including murder, rape, and burglary) have been reported in the United States. In 1986, 2.2 million cases of violence and 20,000 cases of deaths related to violence have been reported (1).

Aggression has been stated to be auto-aggression (toward the person him/herself) that is

mainly reported in depression and neurotic disorders and hetero-aggression toward the other people which includes violence against the body (murder, injury), sexual (sadism), and mental (assault).

In another classification, the aggression falls into two different categories; physiologic, which starts in the childhood, is more prominent in the course of education, and decreases by becoming older and pathologic, which is mainly due to psychosis, depression, epilepsy, addiction, alcohol-

ism, sexual deviation, and personality disorders (1).

Some factors have been determined to increase violence including intoxication, organic abnormalities, growth retardation, neurosis, psychosis, major environmental stresses, physical stresses such as hunger, emotional stresses such as carnality, and social stresses such as argument (2). Most of the adults guide their aggression toward the acquainted people (family members), while in the youngsters; it is generally guided toward the unfamiliar people. Struggles generally start between 10 and 19 years of age and are intensified by the age of 25 years (2). They then obviously decrease from 35 years of age (2).

In our country, no precise statistics are present showing the prevalence of violence and struggles. However, it is obvious that there are definitely problems in this regard in our society. Having a young population as well as problems including the economic problems may affect the risk of violence in our country. Our aim was to evaluate the prevalence and population ratio of violence in our center which is one of the tertiary referral centers of trauma in Tehran. Also, we aimed to evaluate the motivations of the struggles, the instrument used to injure other people, and the types of injuries in the victims who had referred to us after a struggle.

### Methods

In this cross-sectional retrospective study, all 152 patients who had referred to Rasool Akram Hospital for violence and struggle between October 2009 and March 2010 and had been admitted into the different wards of the hospital were enrolled into the study and evaluated. A self-made questionnaire containing data-including age, sex, level of education, job, time of the struggle, previous history of reference to the Forensic Medicine Organization for previous violence, history of alcohol and substance abuse, type of the injury, the instrument used for mayhem, and the part of the body injured- was filled. The data was entered into the SPSS software version 11.5 and analyzed using t test (for quantitative) and chi 2 test (for qualitative) variables.

### Results

Of 152 patients evaluated, 115 (75%) were female and 37 (25%) were male. Most of the patients were in the age group of 10 to 20 years (n=66; 43.4%) followed by the age group of 20 to 30 years (n=38; 25%). Only 2 (1.3%) belonged to the age group of 70 to 80 years. Most of the vic-

tims' level of education was 8th grade (n=66; 43.4%) followed by illiteracy (n=49; 32.2%). A total of 27 (17.8%) had a level of education higher than diploma. Most of the victims were housewives (n=33; 54.6%). Twenty-four (15.8%) were unemployed.

Most had referred after domestic violence (n=106; 61.7%) and the most frequent time of struggle occurrence was between 12 noon and 6 afternoon (n=60; 39.5%). A total of 73 (48%) had the previous history of violence and reference to the Forensic Medicine Organization. History of alcohol, opium, stimulants, and more than one of the mentioned substances were present in 14 (9.2%), 23(15.1%), 12(7.9%), and 11(7.2%), respectively.

The most common type of injuries were abrasions and bruises (n=113; 74.3%), followed by laceration (n=10; 6.6%), and cut (n=7; 4.6%). The most uncommon types included head injury and internal organ injuries (each in one; 0.7%). Twelve (7.9%) had more than one type of injury. The most common location of injury was head and face (n=70; 46.1%) and upper extremities (n=29; 19.1%). In most cases (n=110; 72.4%), the injury had been due to the assailant's body parts, while, in 20 (13.2%) and 12 (7.9%), it was established by hard instruments and pointed and sharp-edged weapons, respectively.

### Discussion

Unlike the previously performed studies (3-5), in the present study most of the victims were female (75%). Most of our victims were housewives and most of the struggles had occurred at home. This shows that domestic violence is very prevalent in our society.

Additionally, most of the victims were between 20-30 years of age which is in accordance with the results of Rahimzadeh and colleagues (3). On the other hand, in other studies, this has been reported to be between 16 and 26 years and 14 to 23 years (5, 6). Since the youth are in the danger of social struggles, their education for anger control and crisis management is warranted.

Regarding the education, the least common group of victims were illiterates (6.6%) which confirms the previously obtained results in our country by Rahimzadeh et al (5.8%) (3).

Although in the previous studies, most of the victims were unemployed, in our study, most were housewives (54.6%) (7). Also, most of the struggles had occurred at home (domestic violence; 69.7%). In the study by Rahimzadeh and assistants in 1998, this rate has been reported to

be 42.6%. This shows an increasing prevalence of violence against women. In the study performed by Watchman and associates, most struggles were street battles (35.9%) and only 10.6% had fallen into the category of domestic violence (7).

In the present study, 48% of the assailants had the history of previous struggles. In the previous study in our area, this has been 23.5% (3). On the other hand, in the study by Hocking and colleagues, 28% had such a history (5). This shows the increasing risk of violence in our country both during the recent years and in comparison with other countries.

The total prevalence of alcohol and substance abuse was 39.3% in the present study, while the prevalence of alcohol abuse alone had been reported to be 50% in the study by Hocking and colleagues (5). This is because of the religious beliefs of our population. However, this rate has increased in our country, as well.

The most common injury was abrasion and bruises in our study (74.3%), while in the previous studies, it has been hematoma and laceration (4). The frequency of internal organ injury was 0.7% (one patient) in our study, but it has not been reported in other studies (5).

The most common parts of the body injured were head, face, and upper extremities. In the similar foreign studies, this has been more prevalent in head and neck (58% to 62%) (4,5). This is maybe because most of the violence cases reported in the present study were domestic violence victims and in these cases, the assailant does not generally really want to harm the opponent. The most uncommon parts of the injury have been reported to be lower extremities and abdomen in different studies (5,8).

No case of injury by gunshots was reported in our victims and in most cases, the assailant's body parts were used for injury (feast, foot and leg [kick], and hand [slap]) which is in accordance with the results of the study by Rahimzadeh

and colleagues (3). Albeit, in their study, injury by biting and knives had also been reported in 5.7% and 3.9% of the victims which was not detected in any of our victims. In the foreign studies, the most common way of injury by the assailant was also punching and kicking (47.6% to 72%) (4,5). Biting had been reported to occur in 2% of the cases and the least common instrument for injury was gun (4,5,8).

### Conclusion

Paying attention to the social position of the women and youth is warranted in our country. Especially, regarding the high prevalence of domestic violence, educating women to cope with dangerous situations seems quite necessary.

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