

Original Article



Pattern of Injuries Suffered by Patients Treated for Alleged Assault at Sherpur Upazilla Health Complex, Bogra, Bangladesh

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Abstract

Background: In Bangladesh, violence plays a detrimental role in our daily lives directly or indirectly. The country experiences high levels of violence, with incidents of violence being reported in mass media daily. **Objective:** The objectives of this study were to assess the demographic and social factors associated with assault incidents as well as to establish the type of injuries suffered by the victims of assault. **Materials and methods:** This study was a retrospective, cross-sectional survey, undertaken at the casualty department of the Sherpur Upazilla Health Complex, Bogura, Bangladesh from 12th November 2016 to 11th December 2016. All patients who attended for injuries due to alleged assault (interpersonal violence) and met the inclusion criteria were included in the study. A total of 72 patients were assaulted which are selected as subjects of the study out of 131 casualties. **Results:** The majority of the victims were males (51.38%), 27.76% were single and 90.27% were of Muslims. The age group of the majority (31.94%) ranged between 21 and 30 years. Most the respondents (68.05%) had injuries to more than one part of the body. Among the assaulted patients, 65.27% had more than one type of injury. The majority of the victims of assault (58.33%) were admitted for in-hospital treatment. **Conclusion:** The study revealed that majority of typical victims of assault treated at Health Complex was males between the ages of 21 and 30 years suffering from minor injuries, mainly to the abdomen and chest.

Key words: Physical injury, Alleged Assault.

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Introduction

Violence is always related with socio economic status of a society as well as the cultural and religious beliefs and practice. Violence has been with us since time immemorial. The earliest reference to trauma in the Bible (in Genesis 4: 8), and expression of man's innate violence, is the slaying of Abel by Cain.¹ In Bangladesh, violence plays a part in our daily lives, affecting almost everybody, directly or indirectly. The country experiences high levels of violence, with incidents of violence being reported in the news and on radio and television on a daily basis, as because illiteracy and poverty are prevailed here. Patients with a history of interpersonal assaults are commonly seen by casualty officers around the country, yet few Bangladeshi studies have documented the history of such assaults. This study was intended to establish the pattern of injuries suffered by the victims of assault in

order to assist healthcare providers with what they could expect when on duty. Interpersonal assault studies come mainly from the Western world. Most authors used "intentional injuries" or "interpersonal violence" to express "assault injuries". In this study, all these terms are used synonymously.² Although there are differences in between assault and injury. Assault is an offer, threat or attempt to apply any force to the body of another in a hostile manner whether it causes any hurt or not.³ On the other hand Injury is any harm caused illegally to a person in body, mind, reputation or property.⁴ Few studies were found in Bangladesh context that violence is endemic to our society. (Reference) The problem is so common worldwide that we found studies from almost every country in the Western world. Barancik et al observed that the highest rate of injury from assault occurred among residents of city centres.² These findings are consistent

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with the observations of Rushforth, who found that mortality from assault was often elevated in the low socio-economic areas of central city slum areas.⁵ Van Geldermalsen and Van der Stuyft attributed injuries due to interpersonal violence in Lesotho to the disruption of the social structure of the Basotho society as a result of its dependence on migrant labour, which weakened normative reference, the moral net.⁴ In an American study, Sumner et al. noted that injury was the leading cause of death for Americans from infancy to middle age; 37% of the injuries, they observed, were the result of personal violence.⁵ Furthermore, Brink et al. reported that accident and emergency departments were valuable sources when information on assault injuries was desired.⁶ As stated by Shepherd et al., solid data could replace the vague impression of anecdotal information and give us a basis upon which to act.⁷ Studies of assault-related injuries have clearly established a relationship between unemployment, alcohol, young age, male sex and illiteracy. The same observations were made by Stein et al.; they reported that each admission may be seen as an opportunity for timeous assessment and intervention.⁸ The family physician can effectively address these issues through a comprehensive approach involving all the stakeholders to help find the appropriate measures to prevent the reoccurrence of assault injuries.

Materials and Methods

TFor a period 12th November 2016 to 11th December 2016, the patients who attended for injuries due to interpersonal violence were assessed from those who were included in the study. Sexual assaults, child abuse and self-inflicted injuries were excluded. A total of 72 patients were found who were injured due to assault. The casualty officer who treated the patient maintains a register book as a record for the patients. The records were maintained in such a way that the profile of the assault victims, the factors associated with assault incidents and the specific characteristics of the injuries suffered, i.e. the anatomical distribution, the type of injuries, the weapon of attack, age of the injuries. The data collected for this study formed part of the normal clinical information in the patient record. No patient identifiers were used on the data collection. Permission to conduct the study was granted by the Upazila Health & Family Planning. As it is a retrospective study and no human or animal experimentation were needed, so that permission of ethical committee was excluded.

Results

A total of 72 patients were considered as the subjects of the study. The majority of the victims were between the ages of 21 to 30 years old 23 (31.94%). (Table I)

Table I: Age groups of assault victims.

Age (in years)	Number		Total	%
	Male	Female		
10 and below	02	02	04	05.55
11 to 20	13	02	15	20.83
21 to 30	10	13	23	31.94
31 to 40	07	07	14	19.44
41 to 50	03	06	09	12.50
51 to 60	01	05	06	08.33
60 and above	01	00	01	01.38

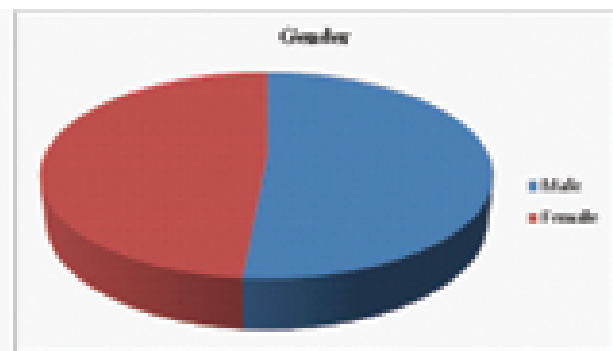


Fig I: Pie chart showing gender distribution of the victims.

Figure I shows the majority of victims were males (51.38%; n =37). Two racial categories are used in this area of Bangladesh. These are Muslims and Hindus community (Figure 2). The overwhelming majority of the respondents in this study were Muslims. This representation reflects population trends in Bogura of Bangladesh. It is about 90.27%.

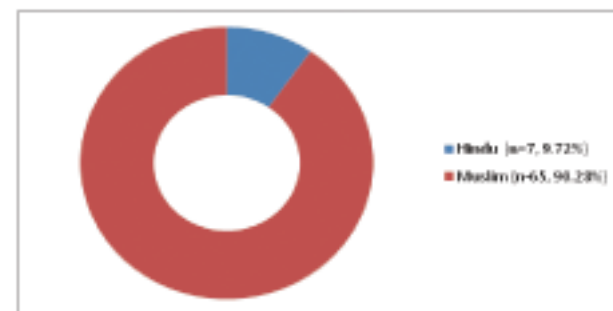


Fig 2: Distribution of the victims according to religion.

In terms of the weapons used during the assault, punches with fists, hands, nails and other blunt objects (not otherwise specified) (72.22%; n = 52) were the most commonly used, followed by sharp cutting weapon (12.50%; n = 9) and sharp pointed weapons (2.77%; n = 2) were used to a lesser extent. The total of 35.5% is explained by the fact that some of the participants reported that they were assaulted with more than one weapon.

Table II shows the types of injuries sustained by the respondents. Majority (55.55%) of the victims had bruises and abrasions. Most of victims (16.68%) were injured at front of the abdomen (Table III).

Table II: Injuries sustained by the victims

Type of Injury	Number	%
No visible injury	09	12.50
Bruises and abrasions	40	55.55
Lacerated Injury	10	13.88
Incised Injury	10	13.88
Penetrating Injury	01	01.38
Firearm Injury	00	00

Table III: Part of body injured

Part of the body injured	Number	%
Nose	03	04.17
Head	08	11.04
Face	05	06.94
Front of the chest	09	12.50
Back of the body	10	13.88
Front of the abdomen	12	16.68
Front of the Lower limb	06	08.34
Back of the lower limbs	02	02.76
Front of the upper limbs	05	06.94
Back of the upper limbs	3	04.17

In terms of the treatment of the victims, 30 (41.67%) were treated and discharged home from the casualty department. A total of 25.0% had their wounds sutured. Reassurance without any additional treatment could not satisfy any of the participants. Reassurance was offered to all the patients in the study in addition to other types of treatment. The treatment given to the victims are summarized in Table IV.

Table IV: Treatment offered to the respondents

Treatment Offered	Number	%
Wound suturing	18	25
Medication	72	100
Combination	18	25
Reassurance	72	100

Discussion

In present study, the victims had injuries to more than one part of the body. The anatomical sites of the injuries due to assault were not similar to those found in other studies. Brink et al. found that the majority of their patients were injured to the head and the neck, with 69% of their respondents having cranio-facial injuries.⁷ Payne-James and Dean reported that the head was the most common site of injury.⁸ Shepherd and colleagues found that facial injuries were extremely common 83%, and that the upper limbs were the most common site after the head 14%,⁹ while Wright and Kariya found that 60% of all assault injuries were to the head and neck.¹⁰ This is also confirmed by Hocking, who found that the head and neck were the most injured, followed by the trunk, the upper limbs and then the lower limbs.¹¹ The same has been also reported by Wladis et al., who found in their study that 72% of the

respondents had suffered cranio-cerebral injuries.¹² Here we see the abdomen is most common site whereas head is fourth common site of injury. This study substantiates the significant costs of assault injuries and emphasizes the financial burden that Sherpur Upazila Health Complex has to bear and specifically the Department of Emergency through its casualty cost centre. Furthermore, any policy that decreases the incidence of assault will improve the financial bottom line of the casualty department. The integration of hospital services with other institutions, such as the police, schools, social welfare organizations and victim support centre is advocated. These departments should work together and collaborate in recommending multidisciplinary intervention strategies to reduce violence in the community. Study¹² reported that trauma centers and emergency rooms represent laboratories where violence prevention research, injury epidemiology and potential collaboration for public development can be instituted. Unless we continue to investigate and find solutions or alternatives to violence, we can expect intentional injuries to be the bulk of our workload in the casualty department, especially at night and over weekends. The implication is that an increased number of health professionals must be available to deal with the workload.

The total of more than 65% in the type of injuries sustained indicates that some of the victims of assault had more than one injury; this was also clinically confirmed by the treating doctors. The preponderance of minor injuries among the victims of assault was reported in most of the studies. The same pattern was found by Hedeboe et al., who noted that the majority of lesions suffered by their respondents were classified as minor injuries.¹³ The trend is similar in the studies done by many other authors where Hutchinson et al. reported that the victims of assault suffered mainly bruises 59%, abrasions or lacerations 49%¹⁴, Butchart and colleagues¹⁵ reported the same findings,⁹ as did Sumner and colleagues, who reported that contusions were the injuries suffered most by the victims of assault and Hocking¹¹, on the contrary, found that lacerations came first, followed by contusions and abrasions. Our study also confirmed that the victims of assault suffered primarily minor injuries and they could be treated as outpatients without the need for admission for in-hospital treatment.

The findings of this study correlate with those of Hocking, who found that most 46% of his respondents were assaulted with fists.¹³ Other weapons, used to a lesser extent, were knives in 15% of cases and bottles in 9% of cases.¹¹ The differences in the use of the last two weapons could be explained by the different settings in which the two studies were conducted (UK and South Africa). Shepherd et al. found that assault injuries most often resulted from punching (72% of cases) or kicking 42%.⁷ Only 6% of the victims in their study reported injuries with knives, but 11% were injured by broken drinking glasses. The different types of societies could possibly account for the different weapons used.⁹

The overwhelming majority 81.4% of the victims of assault in our study were admitted. This trend is explained by the fact that the victims of assault suffered mainly minor injuries and the majority were not discharged immediately after treatment. Those who were admitted spent only a few days in the hospital, with very few of them (1.8% of the total number of victims of assault in this study) spending more than a week in hospital. These findings opposed with those of other studies. Hocking reported that only 12% of the victims of assault in his study were admitted.¹¹ Wladis et al. found that about 15% of assault victims required admission.¹² Our findings of 58,33% of respondents being admitted reflect the opposite pattern around the world. This was due to high rate of compiling suit against assailants and admission in the hospital may falsely indicate the severity. This happened due to undue pressure from the influential persons of the society.

Conclusion

The results of this study provide a picture of the typical assault victim as being Bangladeshi male between the ages of 21 and 30 years. They had been punched by a known person. They attended the casualty department at night or over the weekend. They are more likely not to report the incident to the police because he probably knows his attacker. They have a good chance of having been assaulted before, and he would have suffered minor injuries. Taking into consideration these findings, it can be recommended that legislation should prohibit the carrying of dangerous weapons in public places.

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