



Original Research Article

Clinico-epidemiological characteristics of self-inflicted injuries at tertiary care hospital in Barabanki

Mohammad Abdurrahman Khan¹, Zainab Khan², Manisha Verma^{3*}

¹Dept. of Forensic Medicine and Toxicology, Hind Institute of Medical Sciences, Barabanki, Uttar Pradesh, India

³Dept. of Community Medicine, Hind Institute of Medical Sciences, Barabanki, Uttar Pradesh, India

²Dept. of Dentistry, Hind Institute of Medical Sciences, Barabanki, Uttar Pradesh, India

Abstract

Background: Self-inflicted injury is an intentional and direct injury to one's own's body part without any suicidal motive. Adult males are the main victims in the majority of the cases. The incidence of self-harm is increasing throughout the world and the main reasons for its rise are pressure from society, overuse of social platforms, which increases the gap between parents and their children.

Materials and Methods: This retrospective study includes two-year data from January 2021 to December 2022. Inclusion criteria include the patients who came into the emergency department with self-inflicted injuries. A total of 58 patients were enrolled in the study.

Results: In this study, 22% of subjects were female and 78% were male, 79% were unmarried and 21% were married. Parents' education of most of the patients was below the metric (65.51%). 18 cases (31%) belonged to parents having low socioeconomic status, 23 cases (39.65%) belonged to medium socioeconomic status and 17 cases (29.3%) belonged to higher socioeconomic status. Most of the patients belonged to nuclear families. The most preferred location of self-harm was the left wrist. The blade was the most common weapon used to cause self-inflicted injury, followed by a knife. The most common risk factors associated with such injuries were psychiatric illness and matter of love affairs. The most common psychiatric illness was anxiety disorder followed by depression.

Conclusions: Various ignored issues which play a significant role in acquiring self-inflicted injury, such as the low academic status of parents, the low-to-medium socioeconomic status of parents and nuclear family must be taken into consideration. Rejection in love affairs and psychiatric illness are the most common precipitating factors. Regular follow-up and psychiatric evaluation may be beneficial for limiting self-inflicted injury in the future.

Keywords: Self-inflicted, Self-harm, Intentional, Self-mutilation, Parasuicide, Injuries, Psychiatric.

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1. Introduction

Self-inflicted injuries are an important medicolegal concern worldwide. Self-inflicted injury is one of the oversight aspects of health issue with considerable morbidity and mortality. Self-inflicted injuries are responsible for approximately 1.5% of all deaths, and it is the tenth leading cause of mortality worldwide.¹ It is defined as intentional and direct injury to one's own body part without any suicidal motive. This behaviour is also known as self-wounding, self-harm, moderate self-mutilation and parasuicide.² In most cases, the main victim of self-inflicted injuries is an adult

male and the associated agent is mainly a sharp weapon like a knife, blade, etc. It is a subject of concern and an alarming sign of such self-inflicted injuries are observed in the younger age group and in adolescent.³ Skin cutting is the most common self-inflicted injury. Scratching, hitting body parts, burning and interfering with the healing process of wound are other forms of self-harm. Such injuries differ from stereotypic self-harm behaviours as seen in psychotic people having an intellectual disability with self-mutilation behaviour. As revealed by recent research, self-harm is not

*Corresponding author: Manisha Verma
Email: drmak2005@gmail.com

only confined to psychiatric patients but also prevalent amongst nonclinical populations. Approximately 14% of college-going students and 4% amongst the general population have shown the incidence of self-harm. As revealed by recent research, approximately 35% of college students have reported self-harmful behaviour at least once in their lifetime.^{4,5} The incidence of self-inflicted injuries is increasing throughout the world and the main reasons for its rise are pressure from society and overuse of social platforms, which increases the gap between parents and their children. Due to this, youngsters are unable to face life's challenges and seek easy solutions from the internet to escape such life's challenges. Self-inflicted injuries are one of the easy solutions for young youngsters of the present generation.⁶ Self-inflicted injuries have an extreme emotional, social and economic influence not only on the victim but also on their family, their friends and also on their community. Since hospitalisation, treatment and prolonged care make self-inflicted injuries not only expensive, but it can also divert the shortened resources away from others indigent.⁷ As revealed by recent research, people with self-harm are the victim of other concerns such as psychiatric illnesses, drug abuse, ill health, poor socioeconomic status, family violence, illegitimate children etc.⁸ Delays in the diagnosis and treatment of self-inflicted injuries, especially of the wrist, and lack of psychiatric assessment may result in severe hand disabilities. Management of such injuries is always a tough task and, since medical and surgical interventions are limited, hence a psychiatric evaluation must be taken.⁹

The aim of the present study was to describe the aetiology, pattern and characteristics of self-inflicted injuries amongst the male and female adults who arrived at the tertiary care hospital, Hind Institute of Medical Sciences, Barabanki.

2. Materials and Methods

The present retrospective study includes two years of data from January 2021 to December 2022. Inclusion criteria include patients who come into the emergency department with self-inflicted injuries. A total of 58 patients were enrolled in the study. Cases having doubts about whether the injuries were self-harm or not were excluded from the study. The institutional ethics committee was given the ethical clearance to conduct the study with reference number HIMS/IRB/2021-22/3103.

3. Results

Sociodemographic data such as age, sex, religion, socioeconomic status, marital status, occupation, religion was filled in excel sheet and data were analysed using SPSS (Statistical package for Social Sciences) software.

The total number of self-inflicted cases in our study was 58, out of which 13 cases (22%) were female and 45 cases (78%) were male (**Figure 1**). Out of 58 self-inflicted cases,

46 (79%) were unmarried and 12 (21%) were married (**Figure 2**). This study revealed that education has a key role in such self-harm as the education of the parents of the majority of the subjects was below metric (38 cases), followed by graduates (18 cases) and at least one was uneducated (2 cases) (**Table 1**). 18 cases (31%) of self-harm belonged to parents having low socioeconomic status, 23 cases (39.65%) belonged to medium socioeconomic status and 17 cases (29.3%) belonged to higher socioeconomic status (**Table 2**). Most of the patients in the present study were from nuclear families (69%), whereas 31% belonged to joint family (**Figure 3**). The most preferred location of self-harm was the left wrist, whereas the right wrist was the least preferred location of self-harm (**Table 3**). Only 24% of cases of self-inflicted injuries were multiple in nature, whereas the majority of cases (76%) of self-harm were isolated in nature (**Figure 4**). The blade was the most common weapon used to produce self-inflicted injury, followed by a knife, whereas broken glass produce least self-inflicted injury (**Table 4**). The most common risk factor associated with such injuries was psychiatric illness and matter of love affairs, each with 17 cases (29.31%) whereas, substance abuse is least common risk factor associated with self-inflicted injuries (**Table 5**). Amongst 17 cases of self-inflicted injury associated with psychiatric illness, 6 (35.3%) patients had anxiety disorder, five (29.4%) patients had depression, 3 (17.6%) patients were addicted to alcohol/drugs, 2 (11.8%) patients were suffering from post-traumatic stress disorder and 1(5.9%) patient had borderline personality disorder (**Table 6**). Out of 58 cases of self-inflicted injuries, 54 (93%) patients took the follow-up whereas 4 (7%) cases didn't take the follow-up (**Figure 5**).

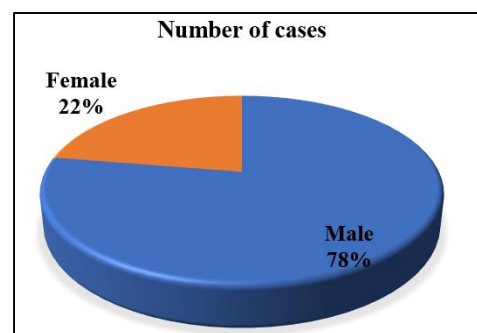


Figure 1: Sex distribution

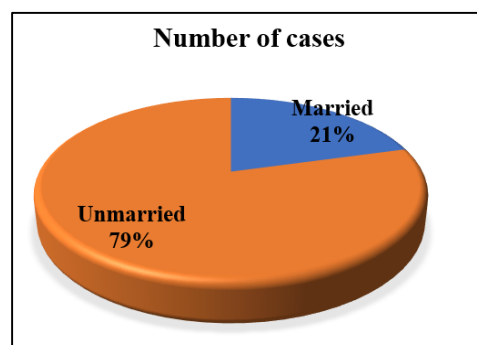


Figure 2: Marital status of cases in percentage

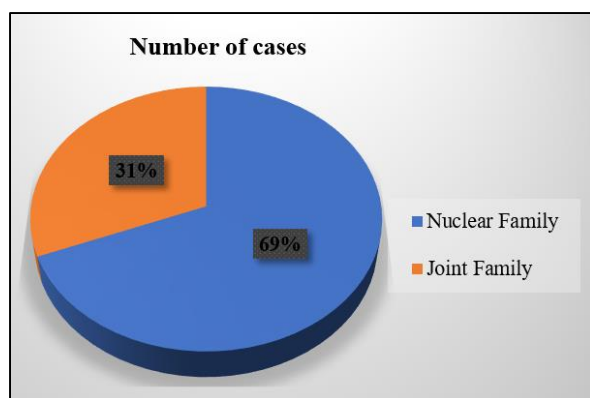


Figure 3: Percentage and types family of patients having self-inflicted injuries

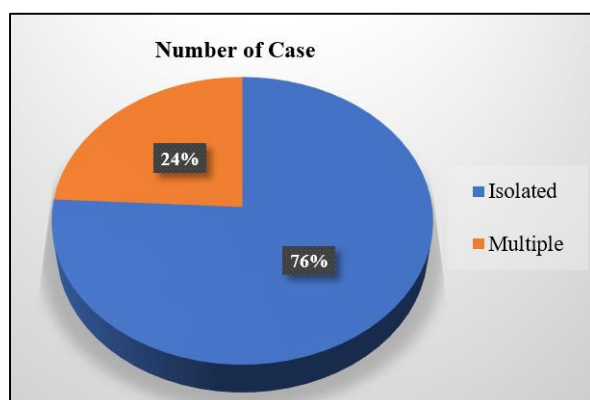


Figure 4: Percentage and types of injuries

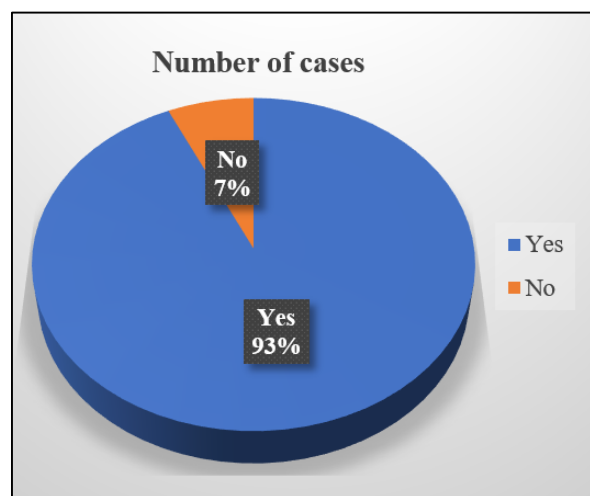


Figure 5: Follow-up taken by the patient of self-inflicted injuries

Table 1: Academic status of cases

Academic status of the parents	Number of cases
Uneducated	2
Below metric	38
Graduate	18

Table 2: Socioeconomic condition of cases

Socioeconomic condition of the parents	Number of cases
Low	18
Medium	23
High	17

Table 3: Distribution of injuries

Position of injuries	Number of Cases
Right Wrist	3
Left Wrist	40
Front of Chest	8
Thigh	7

Table 4: Various weapon used for producing self-inflicted injuries

Weapon used	Number of cases
Blade	39
Knife	9
Needle	6
Broken Glass	4

Table 5: Various risk factors responsible for self-inflicted injuries

Risk factor	Number of cases
Rejection in love affair	17
Psychiatric illness	17
Quarrel with spouse or love partner	9
Loss of employment	5
Failure in Exam	5
Criticism from family or work place	3
Substance Abuse	2

Table 6: Types of psychiatric illness associated with self-inflicted injuries

Psychiatric illness	Number of cases
Anxiety disorder	6
Depression	5
Alcohol or drug abuse	3
Post-traumatic stress disorder	2
Borderline Personality disorder	1

4. Discussion

Self-inflicted injuries are injuries which are produced by an individual with the intention of his own body.¹⁰ Deliberate self-harm, self-wounding and moderate self-mutilation are other terms used for self-inflicted injuries.² Such injuries are frequently observed during medicolegal examination of physical injuries. Most such injuries are easily recognised

during medicolegal examination, whereas some self-inflicted injuries need an expert opinion.¹¹ Our study revealed that males are more victims of self-harm injuries than females, which was similar to study of Manzoor et al.⁶ and Alowais et al.⁹ The reason for male dominance is more social engagement, more outdoor activities and employment by males, so they confront greater medicolegal examination and thus have more tendency for such self-harm injuries.¹² Sanchez-Teruel et al.¹³ revealed female predominance in their study, which was contradictory to our study.¹³ Our study revealed that unmarried subjects were more sufferers of self-inflicted injuries than married individuals, which was similar to the study of Sanchez-Teruel et al.¹³ and Stanley et al.¹⁴ Our study revealed that the education of the parents of the majority of the subjects was below the metric, which was similar to the study of Manzoor et al.⁶ It exhibits the lack of interest and interaction of such parents with their children.¹⁵ Most of the cases of self-harm in our study belonged to families having medium to low socioeconomic status, which was similar to the study of Rabi et al.⁵ Individuals belonging to low and medium socioeconomic conditions are prone to developing multiple stress, are prone to developing mental disorders. Social withdrawal due to lack of family assets results in low self-esteem and depressive signs, which have become a significant cause of self-harm.¹⁶ In the present study, most of the cases belonged to a nuclear family, which was similar to the finding of Manzoor et al.⁶ In comparison to joint families, nuclear families' children get less time from their parents and hence are more prone to developed self harm.¹⁷ The most common distribution of injury in this study was wrist (69% at left wrist, 4% at right wrist) i.e., at forearm, which was similar to the studies of Rabi et al.⁵ and Manzoor et al.⁶ The reason for more self-inflicted injuries to the left wrist is due to the fact that most people are right-handed, and the wrist is easily approachable. Most of the time, injuries were isolated and in very few cases, there were multiple, and it was in accordance with study of Alowais et al.⁹ The blade was the most common weapon used to produce self-inflicted injury in our study, which was similar to the finding of Rabi et al.⁵ The reason behind this is the easy availability of such weapons. The present study revealed that the most common risk factor for self-inflicted injury was rejection in love affairs (29.31%), which was similar to the study of Sánchez-Teruel et al.¹³ and psychiatric illness (29.31%), which was almost similar to the study of Forman et al.¹⁸ The reason behind this is that the younger population faces stressful conditions which result not only in psychiatric illness but also impact on their personal lives. Our study revealed that anxiety disorder was the most common psychiatric illness associated with self-harm injuries and was similar to the study of Hawton et al.¹⁹ In our study, 93% of patients had taken the follow-up.

5. Conclusions

Self-inflicted injuries are very common nowadays, especially in the younger population. The present study focusses on various important issues which play a significant role in

acquiring self-inflicted injury. Low academic status of parents, low to medium socioeconomic status of parents, nuclear family, all these are the ignored issues that must be taken into consideration. The present study found the most common site of self-inflicted injury is in the left wrist. Rejection in love affairs, psychiatric illness, and quarrels with spouses or family members are important precipitating factors. Regular follow-up and psychiatric evaluation may be beneficial for limiting such consequences in the future.

6. Source of Funding

Nil.

7. Conflict of Interest

Nil.

8. Ethical Clearance

Taken from the institutional ethics committee

9. Consent

Not required.

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