Original Research Article

Medico legal update
Volume 23 No. 4, October-December 2023

Deliberate Self harm- A Hospital based cross sectional study

Afzal Haroon[1],Kaleem Khan[2], Kashif Ali[3]

[1,2]Associate Professor, [3]Assistant Professor, Department of Forensic Medicine, Jawaharlal Nehru Medical College, AMU, Aligarh, Uttar Pradesh

How to cite this article: Afzal Haroon A, Khan K, Ali K. Deliberate Self harm- A Hospital based cross sectional study. 2023;23(4):1-5.

ABSTRACT

Background: Self-harm is a growing concern especially among the teenagers and young adults. Non-Suicidal Self-Injury is defined as intentional destruction of one's body tissue without suicidal intent.

Material and methods: A 2 years' retrospective studyfrom January 2021 to December 2022 comprising of 434 cases of deliberate self-harm that presented at the Trauma center of Jawaharlal Nehru Medical College, A.M.U, Aligarh, Uttar Pradesh.

Results: Total 434 cases of self-harm were examinedin which 297 were males while 137 were females.Most of the survivors were from age groups 19-30 years (26.5%) and belonged to rural areas 291 (67.1%). The most common method used for self-harm was taking poison or medicinal drugs (80.9%).

Conclusion: A significant proportion of suicide attempts are impulsive, solitary efforts that are often the result of interpersonal conflicts which can be avoided by supportive communication with the patient.

Keywords: Self harm, Suicide, Poisoning, Hanging, Cut throat.

INTRODUCTION

Globally, there is a serious public health issue with suicide.One of the leading causes of death is suicide, and self-inflicted injury is a common way for people to try suicide worldwide.Intentional self-harm, self-abuse, or suicidal activity, including attempted or successful suicide, are all examples of self-directed violence.The deliberate self-harm (DSH) of teenagers and young adults is a growing source of concern.The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)[1] has proposed a category of Non-Suicidal Self-Injury (NSSI) since many people who present with acts of self-harm do not have suicidal intent.'Intentional destruction of one's body tissue without suicidal intent' is what NSSI is described as. The person acts in this way to either alleviate unpleasant emotions, address interpersonal conflicts, or to elicit pleasant emotions.

It should be noted that the risk of suicide is quite high following a non-fatal act of self-harm, which is why intentional self-injury is frequently linked to a disproportionately high number of completed suicides.[2, 3] Self-harming behaviour and self-inflicted wounds can, in fact, often signal a need for temporary support, but they can also indicate serious mental health issues and a real risk of suicide.[4] In this regard, risk factors range from having a family history of suicide to having a chronic illness that could cause pain, having a weak support system, and feeling like a burden

Corresponding author: Dr. Kaleem Khan, Associate Professor, Department of Forensic Medicine, Jawaharlal Nehru Medical College, AMU, Aligarh, Uttar Pradesh

Email: drkaleemkhanfmt@gmail.com

to others. [5,6] Additional danger indicators include having easy access to lethal means, learning about the suicide of a loved one or acquaintance, and having certain personality traits like impulsivity or poor emotional regulation, using illicit substances, or having an excessive amount of emotional distress. [7,8]

There are no specific medications available to treat self-harming behaviour. To address the underlying problem that is connected to self-injury, doctor may suggest antidepressants or other medications if an individual is diagnosed with a mental health condition like depression or an anxiety disorder. Treatment for these ailments might lessen the desire to harm oneself.The aim of this study is to evaluate which sociodemographic variables and comorbid psychological conditions in individualsare most predictive of self-harm.

MATERIAL AND METHODS

A 2 years' retr ospective study was conducted by identifying andreviewing all deliberate self-harm cases that presented at the Trauma center of Jawaharlal Nehru Medical College, A.M.U, Aligarh, Uttar Pradesh from January 2021 to December 2022. This study is based on the record of patients who were brought for medico-legalexamination. To achieve this objective, a documentary datacollection form was compiled to capture the relevant information. The details regarding age, gender,marital status, place of incidence, education level, reason and method of self-harm were noted. Ethical clearance was taken for this research from Institutional ethical committee.A documentary data collection form was compiled to capture the relevant information from the patients after obtaining informed consent.

RESULTS

Total 434 cases of self-harm were examined in the Trauma center of Jawaharlal Nehru Medical College over the span of 2 years in which 297 were males while 137 were females.In this study, we found that most of the survivors were from age groups 19-30 years (26.5%) and 31-40 years (22.6%) while least were in age less than 18 years (6.7%) as shown in Table 1.

The majority of victims belonged to rural areas 291 (67.1%) as compared to urban areas 143 (32.9%) as depicted in Table 2.

According to Table 3, individuals who were married were 354 in number (81.6%) followed by unmarried (11.7%) and divorced (6.7%).

Table 1: Distribution of cases according to age and gender

Age group	Male	Female	Total	Percentage
0-18 years	22	07	29	6.7
19-30 years	81	34	115	26.5
31-40 years	66	32	98	22.6
41-50 years	61	31	92	21.2
51-60 years	41	18	59	13.6
>61 years	26	15	41	9.4
Total	297 (68.4%)	137 (31.6%)	434	100

Table 2: Distribution of cases according to place of residence

Place of residence	No. of cases	Percentage
Rural	291	67.1
Urban	143	32.9
Total	434	100

Table 4 depicts that 147 individuals (33.8%) were illiterate, 109 (25.1%) had primary level education, 97 (22.4%) had secondary level education while 81 (18.7%) were graduates.

In the detailed evaluation of the different qualitative aspects, the history about the precipitating factor was taken and it was seen that majority of the participants reported relationship problem (25.6%), financial problem (20.1%), job related stress (15.2%) and love failure (11.7%) as major precipitating factor (as shown in Table 5).

The most common method used for self-harm was taking poison or medicinal drugs (80.9%) followed by hanging (9.9%), cut injury to wrist (4.8%) and cut throat (4.4%) as shown in Table 6.

Table 3: Distribution of cases according to marital status

Marital status	No. of cases	Percentage
Married	354	81.6
Unmarried	51	11.7
Divorced	29	6.7
Total	**434**	**100**

Table 4: Distribution of cases according to education level

Education level	No. of cases	Percentage
Illiterate	147	33.8
Primary	109	25.1
Secondary	97	22.4
Graduate	81	18.7
Total	**434**	**100**

Table 5: Distribution of cases according to reason or precipitating event

Precipitating event	No. of cases	Percentage
Relationship problem	111	25.6
Financial problems	87	20.1
Job related stress	66	15.2
Love failure	51	11.7
Physical illness	49	11.3
Death of loved one	41	9.4
Failure in exams	29	6.7
Total	**434**	**100**

Table 6: Distribution of cases according to method of self-harm

Method of self-harm	No. of cases	Percentage
Poison/Drug	351	80.9
Hanging	43	9.9
Cut injury to wrist	21	4.8
Cut throat	19	4.4
Total	**434**	**100**

DISCUSSION

The current research attempted to analyze various risk factors of deliberate self-harm. The results from statistical analysis indicate that relationship problems, financial problems, job related stress and love failure to be the significant predictors of deliberate self-harm. Bhattacharya et al.[9] and Sarkar et al.[10] classified hospitalized cases of self-harm into two categories based on intentionality, lethality, mode, and age i.e., Failed suicide (those with high intent to die) and Deliberate self-harm (those with low intent to die).

Astonishingly, family interpersonal problems seemed to be the most frequent background stresses or triggering concerns in a rural society where joint family structures are so important to a way of life. The robust joint family system, long thought to be protective against suicide, paradoxically appears to be the most frequent initial cause for suicide attempts in our study. This stands in direct contrast to the often used suicide literature, especially that from Western nations where being alone is a major risk factor. [11,12]

The high incidence of self-harm amongst males (68.4%) as shown in this study is easily comprehensible by the fact that males are more often exposed to the stress of day to day life, occupational hazards, financial difficulties, loss of job, discord at home and workplace etc which is similar to study conducted by Rabi et al.[13] but in disparity to Suyemoto [14] in which self-harm is more common in females as compared to male population.

Ingestion of agricultural poisons including pesticides, insecticides along withcelphos and medicinal drugs (80.9%) accounted for the vast majority of attempts in our study mostly because these are readily available and accessible to everyone which is similar to study conducted by Mohanraj et al.[15] This trend is due to the gradual urbanization of the country and easy availability of over the counter drugs both in urban as well as in rural areas.

CONCLUSION

Poisoning is the most frequent way of deliberate self-harm among patients, which is a very prevalent condition. These preliminary data show that a significant proportion of suicide attempts are impulsive, solitary efforts that are often the result of interpersonal conflicts. Contrary to expectations, young males appear to be trying suicide in higher numbers. The findings of this study are helpful in identifying patients who are likely to intentionally injure themselves. The involvement of family and friends should be taken into account in programs designed to stop intentional self-harm. To avoid relying on dubious online sources, it is strongly advised that family and friends build up a line of supportive communication with the patient. In order to ensure that the patient receives the care they require, the doctor and hospital staff should establish a cooperative therapeutic relationship with them. They should also inform the patient and their family members about their condition and diagnosis.

Conflict of interest- None

Source of Funding- Self

Ethical clearance- Taken from Institutional Ethical Committee

REFERENCES

[1] American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Arlington: American Psychiatric Publishing; 2013.

[2] Madsen T, Agerbo E, Mortensen PB, Nordentoft M. Deliberate self-harm before psychiatric admission and risk of suicide: Survival in a Danish national cohort. The Social Psychiatry and Psychiatric Epidemiology. 2013;48(9):1481-1489.

[3] Runeson B, Haglund A, Lichtenstein P, TidemalmD. Suicide risk after nonfatal self-harm: A national cohort study, 2000-2008. The Journal of Clinical Psychiatry.2016;77(2):240-246.

[4] Fliege H, Lee JR, Grimm A, Klapp BF. Risk factors and correlates of deliberate self-harm behavior: A systematic review. Journal of Psychosomatic Research. 2009;66(6):477-493.

[5] Rijsselberge, Van L, Portzky G,Heeringen van C. (2009). Self-harm in adolescents in Flanders. Dutch Journal of Psychiatry. 2009; 51:629-640.

[6] Vargas PA, Robles E. Asthma and allergy as risk factors for suicidal behavior among young adults. Journal of American College Health.2019;67(2):97-112.

[7] Hill RM, Pettit JW. Perceived burdensomeness and suiciderelated behaviors in clinical samples: Current evidence and future directions. Journal of Clinical Psychology. 2014;70(7):631-643.

[8] Brown RC, Plener PL. Non-suicidal Self-Injury in Adolescence. Current Psychiatry Report. 2017;19(3):19-20.

[9] Bhattacharya AK, Bhattacharjee S, Chattopadhyay S, Roy P, Kanji D, Singh OP. Deliberate self-harm: A search for distinct group of suicide. Indian J. Psychol. Med. 2011; 33:182–7.

[10] Sarkar P, Sattar FA, Gode N, Basannar DR. Failed suicide anddeliberate self-harm: A need for specific nomenclature. Indian J.Psychiatry. 2006;48:78-83.

[11] Stickley A, Koyanagi A. Loneliness, common mental disorders and suicidal behavior: Findings from a general population survey. J Affect Disord 2016;197:81-7.

[12] Ebenezer JA, Joge V. Suicide in rural central India: Profile of attempters of deliberate self harm presenting to padhar hospital in Madhya Pradesh. Indian J Psychol Med 2016;38:567-70.

[13] Rabi S, Sulochana J, Pawan S. Self-inflicted cut injury as common method of deliberate self harm: A retrospective study from Nepal. Indian J Psychol Med 2017;39:579-83.

[14] Suyemoto KL. The functions of selfmutilation. ClinPsychol Rev1998;18:53154.

[15] Mohanraj R, Kumar S, Manikandan S, Kannaiyan V, Vijayakumar L. A public health initiative for reducing access to pesticides as a means to committing suicide: findings from a qualitative study. Int Rev Psychiatry. 2014; 26(4):445-452.