

Evaluation of Mode and Psychiatric Co-morbidity of Intentional Self Harm: A Hospital Based Study.

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ABSTRACT

Introduction: Intentional self-harm is a potentially self-injurious action with a non-fatal outcome for which there is evidence, either explicit or implicit, that the individual intended to kill himself or herself. Suicide is a fatal act of self-injury (self-harm) undertaken with more or less conscious self-destructive intent. There has been an increase in the number of patients presenting with attempted suicide in the emergency settings of hospitals. This study aimed to explore socio-demographic characteristics, pattern of attempts, psychiatric diagnosis, psychosocial and personality factors among survivors of suicide attempt presenting to a tertiary care hospital. **Methods:** The study included 100 survivors of intentional self-harm registered over a period of six months visiting a tertiary care hospital. The cases directly presented to Psychiatry department and were referred from medical and other departments for psychiatric evaluation. They underwent evaluation by consultant psychiatrist and received appropriate interventions. **Results:** Majority of the victims were female (73%), belonging to the age group of 20-40 years. The most common method of attempt was self-poisoning with pesticides (65%) followed by hanging (16%) and overdose of drugs (7%). Most of the attempts (68%) were impulsive in nature. Mental illness was diagnosed in (65%) of the cases, mainly depressive disorder (51%), and personality disorder (10 %). Most of the attempts (67%) were triggered by psycho-social factors. **Conclusion:** The pattern shows predominance of female gender, young age group, a role of mental illness, impulsivity and psychosocial factors in intentional self-harm.

Key words: Intentional self-harm, Psychiatric co-morbidity, Psycho-social, Self-poisoning

INTRODUCTION:

Suicide presents as one of the serious social and public health problems. Its prevention is still a challenging task to the public health authorities and other health care providers. Worldwide, 100–300/million people commit suicide annually.[1,2] Intentional self-harm is considered to be the best predictor of an eventually completed suicide. It is a potentially self-injurious action with a non-fatal outcome for which there is evidence, either

explicit or implicit, that the individual intended to kill himself or herself. The action may or may not result in injuries.[3] There has been an increase in the number of patients presenting with attempted suicide in the emergency settings of teaching and general hospitals.[2] Psychiatrists and many other researchers have reported about the profile of and the risk factors among patients with attempted suicide presenting to general hospital settings.[1,4,5] Data show that for each adult who died of suicide, there may have been more than 20 others attempting suicide.[6] WHO had estimated an age-standardized suicide rate for Nepal in 2012, ranking it seventh in the world at 24.9 per 100,000 (WHO, 2014).[7] Suicide is a serious public health problem; however, suicides are preventable with timely, evidence-

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based and often low-cost interventions. It has been estimated that intentional self-harm can be up to 10- 40 times more frequent than completed suicides. [8] Hence, understanding the various aspects of suicide and self-harm behavior in Nepal, it is useful to devise effective suicide prevention strategies for this country. This study aimed to explore the socio-demographic characteristics, pattern of attempts, psychiatric diagnosis, psychosocial and personality factors among survivors of suicide attempt presenting to a tertiary care hospital.

METHODS:

This was a cross-sectional descriptive study based on the interview of the patients directly presenting to and those referred to the Department of Psychiatry at Lumbini Medical College and Teaching Hospital (LMCTH). Ethical approval was obtained from the Institutional Review Committee (IRC-LMC 01-G/019) prior to commencement of data collection.

The study population included all those patients who were admitted to various departments and being managed for intentional self-harm during the period of six months (1st January 2019 to 30 June 2019). They were identified as suicide attempt cases by medical emergency/other departments and referred to the department of psychiatry for evaluation. Each patient underwent a detailed psychiatric evaluation by a consultant psychiatrist. Psychiatric diagnoses were considered as per the ICD-10 criteria. In order to make an objective assessment, the Scale for Assessment of Risk of Suicide (SARS) developed by Faculty of Psychiatry at IHBAS, was used to find out the level of suicidal risk in a given case. [9] Those patients who were medically unstable (e.g. in altered sensorium) causing difficulty in detail psychiatric evaluation, with absence of reliable informants during evaluation, diagnosed as accidental cases and those who died during the hospital stay due to medical conditions were excluded from the study.

Details of these patients including socio-demographic data, psychiatric diagnosis considered were analyzed using SPSS-20. Socio-demographic data like age, sex, religion, residence, education, occupation, marital status and family type, and clinical information including psychiatric co-morbidity, pattern of attempts, and psychiatric diagnosis of the patients were taken into account. The socio-demographic data was assessed by using

a semi- structured proforma sheet. The mode of suicide attempt was assessed by history taking and physical examinations.

All the data were analysed with Statistical Package for Social Sciences (SPSS™) software version 20. Qualitative data were presented in frequency and percentages and quantitative data in mean with standard deviations.

RESULTS:

During the study period, there were a total of 100 registered intentional self-harm cases who met the eligibility criteria for the study. Of the total 100 cases of intentional self-harm, 73 (73%) were females (female to male ratio 2.70). The mean age ($\pm$ SD) of the patients was 33.6 years ($\pm$ 11.01), and the majority 62(62%) of the patients were in the age group of 20–40 years. Table 1 presents the socio-demographic profile of the patients.

Table 1. Socio-demographic profile of intentional self-harm (N=100).

Variables		Male	Female
Age (years)	<20	11	8
	20-40	11	47
	>40	5	18
Marital status	Married	14	46
	Unmarried	12	16
	Separated	1	11
Family type	Nuclear	10	39
	Joint	17	34
Occupation	Housewife	0	42
	Farmer	13	8
	Student	6	11
	Service	6	11
	Business	1	2

Majority (65%) of the cases of intentional self-harm had mental illnesses. Fifty-one (51%) were cases of depressive disorder, impulsive act was 31(31%), 10 (10%) were patients with personality disorders, five (5%) were patients with underlying psychosis and others were three (3%).

The details about intentional self-harm are mentioned in Table 2. Self-poisoning with pesticides was the most common attempted method (n=65), mainly with organophosphates. Seven (7%) cases had attempted to overdose themselves with

prescribed psychotropic medications. Hanging was attempted by 16 (16%), whereas few had inflicted cut injuries upon themselves. Most of the victims had moderate (n=41) to high intent (n=20) indicating that they had stronger intent to die. Most of the attempts were impulsive 6(68%) in nature. Only one third of the patients reached hospital within 24 hours of the index suicidal attempt. Based on the psychiatrist's clinical assessment and treatment before discharge, the suicide risk following discharge was found to be moderate to high in 39 and low in 61 cases. Most (n=94) of these patients required hospitalization and half of them required additional psychotropic medications and rest as counseling.

Table 2. Details of the intentional self harm /related to index suicidal attempt (N=100).

Variables		Male	Female
Modes of attempt	Poisoning	8	57
	Hanging	7	9
	Overdose of drugs	4	3
	Cut injury	2	1
	Others	6	3
Time gap reporting in emergency	≤24 hours	6	20
	>24 hours	21	53
Lethality of suicide	Severe	17	55
	Moderate	9	18
	Mild	1	0
Intent	Severe	5	15
	Moderate	14	27
	Mild	8	31
Suicide risk	High	11	28
	Low	16	45
Impulsive attempt	Yes	15	53
	No	12	20
Past history of attempt	Yes	11	24
	No	16	49

Majority of the attempts (n=67) were preceded by at least one psychosocial factor, mainly interpersonal conflicts (n=26). The most common psychosocial factor was argument with spouse leading to impulsive attempt which was seen mostly in female cases. Married men under influence of alcohol were also found to impulsively attempt suicide after conflict with their wives. In unmarried adolescents, acute stress due to arguments with

parents/siblings were the common psychosocial issues (Table 3).

Table 3. Diagnosis and psychosocial stress in intentional self-harm (N=100).

Psychiatric diagnosis	Male	Female
Depression with intentional self-harm	13	38
Intentional self-harm with impulsive act	6	25
Psychosis with intentional self-harm	3	2
Intentional self-harm with personality disorder	4	6
Others	0	3
Psycho-social stressors		
Present	15	52
Interpersonal conflicts	8	18
Conflicts with spouse	3	18
Arguments with parents/siblings	3	12
Academic	1	4

DISCUSSION:

To the best of our knowledge, this is the first study on cases of intentional self-harm presenting to the emergency department in a tertiary care centre. In this study, female intentional self-harm outnumbered male self-harm attempters with a ratio of 2:1. Similar findings have also been reported by other studies.[1,4,6,10] Majority of the intentional self-harm in this study were in the age group of 20–40 years, a finding similar to the other studies, suggesting that this most productive age group in the society has a high vulnerability to suicidal attempts.[2,11] Preponderance of young in this sample of intentional self-harm suggests that the young who attempt intentional self-harm are more likely to be brought for the treatment immediately as comparison to older people.[11] More than threefourth of intentional self-harm in the study belonged to the joint family in rural area, a finding similar to the one reported in another study.[12] There has been an increase in the number of nuclear families over the years in Nepal. A higher level of stress is associated with living arrangements in the nuclear families due to urbanization. The buffering effect of sharing the burden by all the members in joint families is lacking in nuclear families resulting in increased vulnerability of individuals

to stress and psychiatric disorders, as well as to intentional self-harm. However, this finding may partly be due to predominance of urban domicile of the study subjects as nuclear families are more common in urban areas. Availability of a particular method plays an important role in the method of choice, especially when the attempts are impulsive in nature.[13] Easy availability and lack of safety precautions of pharmaceutical agents and pesticides in countries like Nepal make them a preferred choice for suicidal attempt. In this study, self-poisoning with pesticides, (mainly organophosphates) was found to be the most common method of intentional self-harm similar to past studies of suicide attempt cases.[14,15,16,17,18] Contrary to this, hanging has been found to be the commonest method of mortality due to suicide in another study in Nepal.[19] The discrepancy in the hospital based and police data could be because hanging cases have higher fatality and these individuals are less likely survive to reach the hospitals and are more likely to be reported to the police. On the other hand, self-poisoning cases in the remote regions might be under-reported to the police and mistaken for accidental cases. Hence, suicide research with more robust methodology is required in Nepal to clarify these aspects. This study also showed that majority of the intentional self-harm (>68%) were impulsive, i.e. without pre-meditation, which was also seen in a previous study from Eastern Nepal.[18] .Most of the attempts survivors had moderate to high intent to die, similar to past studies in Nepal.[20,21] Thus, it is a big challenge to identify the individuals who are vulnerable to impulsive intentional self-harm with strong intent to die. Our study revealed that the psychiatric disorders accounted 65% of these intentional self-harms. This is similar to the study done in Nepal by Thapaliya et al. which showed 60% of psychiatric disorders amongst the suicidal attempts .[22] In the current study, there was a significant delay in seeking treatment after the index suicidal attempt, that is, 2/3 of cases reached hospital after a delay of more than 24hours after the suicidal attempt. This is probably due to remote hilly location and transportations delay in western part of Nepal and also many of the patients and families might not have realized the seriousness of intentional self-harm. Study shows three-fourth of index suicidal attempts had moderate to high lethality and 61 % of the self-harm attempts were associated with moderate to severe intent. This emphasizes the need of educating people regarding suicidal behavior as a public health measure for suicide

prevention.[23] Ghimire S et al. also highlighted the role of several psychosocial factors in triggering suicide attempts. The presence of interpersonal conflicts (mainly in females) like verbal arguments with husbands/romantic partners or family members were common, mainly in adolescents, similar to findings from the past studies.[15] Overall, it can be inferred that the attempts were triggered by contribution of impulsivity and easy access to lethal means in groups with high vulnerability due to either immediately preceding psychosocial factors, distress due to psychiatric disorder and in few, under the influence of alcohol.

Despite some important reflections in the overall trend regarding suicidal behavior, there are several limitations in this study. It is a hospital-based study with a small sample size and reviews cases registered during the period of only six months. The center was chosen purposively thus limiting generalization of the results for the whole country. Studies also need to focus on individuals who intentionally inflict self-harm without intent to die. A more detailed exploration regarding role of psychosocial issues and personality factors is warranted in Nepalese context. Additionally, qualitative data might be required to further explore associated factors, attitude and stigma towards the survivors. A national level epidemiological survey with robust methodology is important to understand the burden of the problem and devise suicide prevention strategies.

CONCLUSION:

Most of the attempts were by self-poisoning, impulsive in nature with moderate to high intent. Besides psychiatric disorders, there seemed to be prominent role of impulsivity and acute psychosocial stressors in triggering the intentional self-harm. Besides the acute clinical management, these individuals also need to be regularly followed up for continued aftercare to prevent further attempts and mortality risk due to suicide in future. These findings need to be verified with methodologically superior studies to devise effective, economical and socio-culturally feasible suicide prevention strategies for the country.

Conflict of interest: Authors declare that no competing interest exists.

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