



Deliberate Self harm in Alcohol Dependent Outpatients in Tertiary Care Centre

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ABSTRACT

Deliberate self harm (DSH) is a behavioral problem with significant clinical and public health importance. It is reported across several psychiatric illnesses like personality disorders, alcohol dependence syndrome (ADS) and affective disorders. A hospital based cross-sectional study was carried out to find the incidence of DSH in outpatients with alcohol dependence syndrome, to learn about the methods used for DSH and to describe the association of DSH with psychiatric co-morbidity in the study population. Data was collected from 100 consecutive outpatients with ADS using structured socio-demographic Performa and semi-structured pre-validated DSH questionnaire. ADS and psychiatric co-morbidities were diagnosed by International Classification of Diseases Diagnostic criteria for research- Tenth Revision. (ICD-10 DCR) Incidence of DSH in them in 1 year was 25%. The commonest method of deliberate self-harm was consuming poison (76%). 84% had done DSH under intoxication. 92% of them had stressful situation immediately before DSH. 48% had attempted DSH impulsively. 40% had past history of psychiatric disorder. 56% had past history of DSH. 56% had psychiatric co morbidities, of which Depressive disorders (39%) were the most common. 39% of patients with psychiatric co morbidity had past history of DSH. 16% with co morbid depressive disorder had attempted DSH in past 1 year. All patients presenting after deliberate self-harm need to be carefully screened for alcohol disorders and for co morbid psychiatric diagnoses. Abstaining from alcohol may be considered as a key to the resolution of deliberate self harm.

Keywords: *Deliberate Self-Harm, Alcohol Dependence Syndrome, Psychiatric Co Morbidity.*

INTRODUCTION

“Deliberate Self-Harm,” (DSH) is defined as “self-poisoning or injury, irrespective of the purpose of the act.”^[1] As in many countries, DSH in India is an unrecognized, hidden, and a silent epidemic. Incidence of DSH is increasing and is being reported in much younger age group, both in clinical and general population.^[2] Individuals who engage in DSH report using problematic coping mechanisms, one of which is alcohol consumption.^[1] Research on alcohol involvement and deliberate self-harm is conflicting.^[3] Alcohol dependence as well as co morbid psychopathology and negative life events, act as the distal risk factors for suicidal behavior. Proximal risk factors determine the timing of suicidal behavior by translating potential of distal risk factors into action.^[4] Acute effects of alcohol intoxication act as important proximal risk factor for suicidal behavior for patients with and without alcohol dependence. Alcohol consumption prior to suicide attempt is more important risk factor than the habitual alcohol consumption pattern. In addition to increasing likelihood of an attempt, alcohol may add considerably to danger of overdoses.^[5] Mechanisms responsible for alcohol’s ability to increase proximal risk for suicidal behavior include alcohol’s ability to increase psychological distress, increase aggressiveness, propel suicidal ideation into action through suicide-specific alcohol expectancies and constrict cognition, which impairs generation and implementation of alternative coping strategies.^[4] Alcohol dependence, depression and antisocial personality disorder form the formidable triad towards self-destruction.^[5] Methods employed for suicide attempt / self-harm in India are strikingly different from those reported in Western data.^[6] Alcohol dependent patients with DSH present a considerable challenge for clinical services.^[4] No published study conducted in this region examined both issues of the presence of psychiatric co- morbidity and deliberate self harm in patients with alcohol dependence.

AIMS & OBJECTIVES

1. To study the incidence and methods of deliberate self-harm in outpatients with alcohol dependence syndrome in a tertiary care centre.
2. To analyze the relationship between psychiatric co – morbidity and DSH in this population.

MATERIALS & METHODS

This is a cross sectional hospital based study. Participants were recruited by purposive sampling based on the inclusion and exclusion criteria for a study period of 6 months. Cases for this study included 100 consecutive participants, aged 18-65 years, who met the ICD 10 DCR diagnostic criteria for alcohol dependence syndrome, who were willing to participate in the study and who had given written informed consent. Patients with co morbid organic mental disorders, severe physical problems and those who were unable to give written consent were excluded from the study. All patients were under the management of a consultant psychiatrist. Participants were interviewed with Socio- demographic Performa and DSH Questionnaire specially prepared by the researcher for this purpose. Past history and family history of ADS, or psychiatric disorders, or suicide and deliberate self harm, methods and details of attempts were recorded. Face-to-face interview rather than self-administered format was used to enhance cultural, language and literacy sensitivity. The draft schedule was given to 5 experts in the field for face validation. Based on their suggestions and comments, final schedule was prepared. Detailed history and mental state examination was done for all patients to diagnose psychiatric co-morbidities as per ICD-10 DCR. Data collected was entered in and later analyzed using the computer program, Statistical Packages for Social Sciences (SPSS) Version 13. Descriptive statistical tools like frequency, percentage, mean and standard deviation were used. Categorical variables were analyzed using Chi- square or Fisher’s exact test and continuous

variables were analyzed using student's t test. A p value < 0.05 was considered significant.

RESULTS

The study group comprised of 100 patients whose age ranged from 22 to 60 years, with a mean of 41.38 years and a standard deviation of 9.45 years. Majority of the patients were in the age group of 41-50 yrs (40 %). Hindus (74%) dominated the sample. (Figure1). Majority (98%) of the sample were males. Only 2 females were there in the study group who were Hindus in the age group of 41-50 years. Majority of the patients had primary education (72%), were employed (66%), married (65%), and hailed from rural areas (74%) and joint families (60%). (Table 1)

Out of 100 patients in the sample, 25 patients had attempted DSH in the past 1 year (25%). Table: 2 shows characteristics of patients with history of deliberate self harm (DSH) in last one year. The

commonest method of deliberate self-harm were consuming poison (76%). 92% had history of stressful situation immediately before the attempt. 84% were under intoxication when they attempted DSH. 40% of the sample had past history of a psychiatric disorder and 56% had past history of deliberate self harm. 48% reported attempt as an impulsive act.

79% patients had co morbid nicotine dependence. 56% had psychiatric co morbidities. Depressive disorders (39%) were the most common psychiatric co morbidity encountered. (Figure 2) Patients with psychiatric co morbidity were more likely to have DSH (39%). (Figure 3) Table: 3 shows that higher number of patients with co morbid depressive disorders or adjustment disorders had attempted DSH in past 1 year when compared with patients with other co morbid psychiatric diagnosis and this relation was statistically significant.

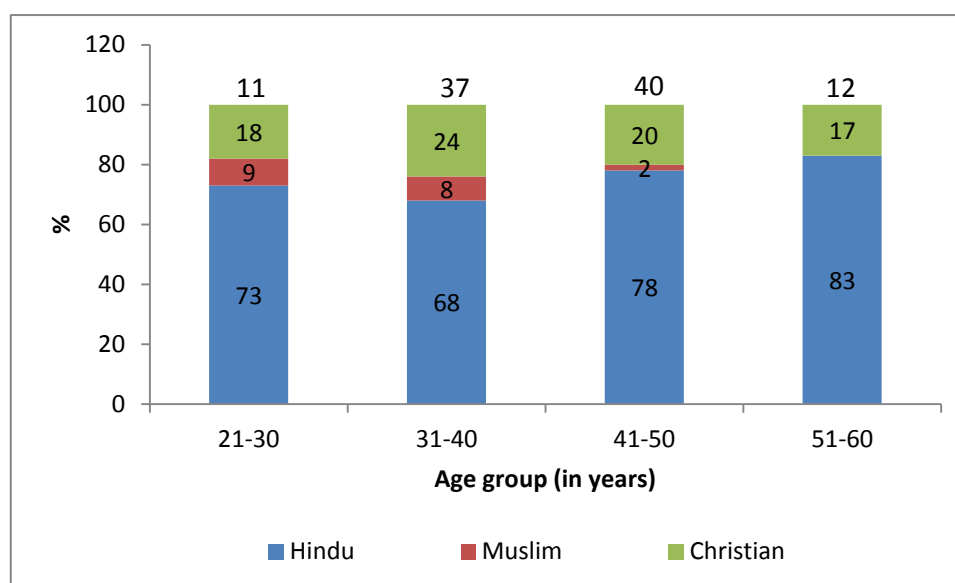


Figure: 1 Age group and religion wise distribution

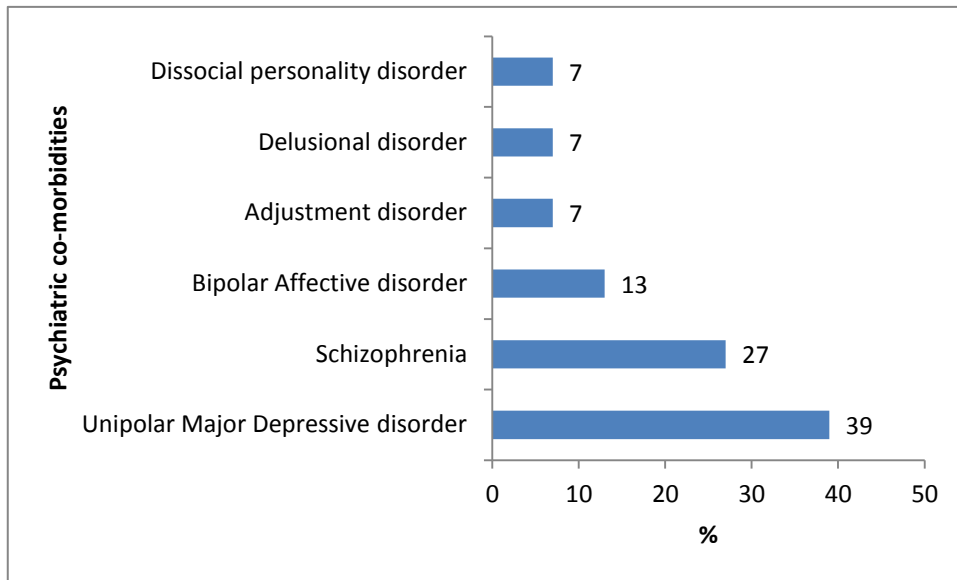


Figure: 2. Psychiatric co morbidity in the sample

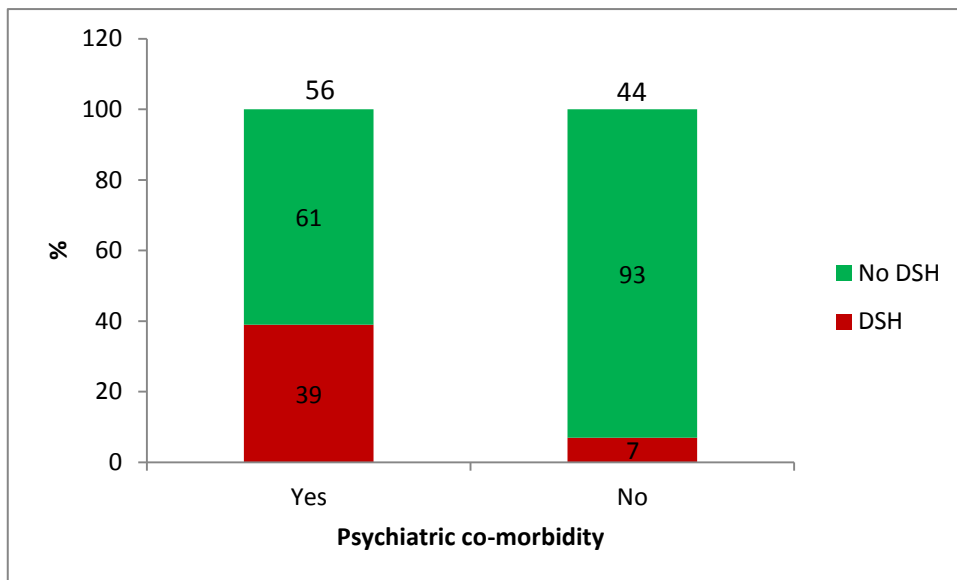


Figure: 3. Deliberate self harm (DSH) and psychiatric co morbidity

Table: 1. Socio- demographic data

Variables		N	%
Sex	Male	98	98
	Female	2	2
Marital Status	Single	22	22
	Married	65	65
	Separated	13	13
Educational Status	Primary	72	72
	Above primary	28	28
Domicile	Urban	26	26
	Rural	74	74
Occupation	Unemployed	34	34
	Employed	66	66
Family type	Nuclear	40	40
	Joint	60	60

Table: 2. Characteristics of patients with history of DSH

Characteristics	N=25	%
Intoxicated at the time of DSH	21	84
Impulsive act	12	48
Stressor	23	92
Past history of DSH	14	56
Family history of DSH	18	72
Past history of psychiatric illness	10	40
Agents used for DSH		
Organophosphorus	17	68
Organochlor compounds	2	8
Self inflicted cuts	3	12
Acids	3	12

Table: 3. Psychiatric co-morbidity and DSH

Psychiatric morbidity	co-	Deliberate self harm				Significance
		Yes		No		
	n	%	n	%		
Depression	11	50	11	50	#<0.005	
schizophrenia	6	40	9	60	NS	
Delusional disorder	0	0	5	100	NS	
Personality disorder	1	20	4	80	NS	
Adjustment disorder	5	100	0	0	€ p≤0.001	

#chi square test

€ fisher’s exact test

NS- Non significant

DISCUSSION

Incidence of DSH in patients with alcohol dependence syndrome was 25%. This was similar to other recent Indian studies. [7, 8, 9] DSH was found to be more in males in this study. Most

patients with DSH belonged to younger age group with slight male preponderance in other Indian studies. [8, 9] But association between gender and deliberate self harm could not be statistically examined because of poor representation of

females in this sample. Majority of the sample was less educated. This was also reported in other Indian studies.^[2, 7]

Most common method of DSH was poisoning (76%) in our study. 68% of alcohol dependent patients used organo phosphorus compounds for self harm. This is similar to other studies.^[7, 8, 10]

More patients belonged to rural and agrarian background with farmers and agricultural laborers being the highest among males and housewives among females. Higher economic instability, risks associated with agriculture and easy availability and easy accessibility of pesticides explain these findings. Pesticide self-poisoning is now considered by the WHO to be the commonest method of fatal self-harm worldwide but it is rarely seen in the west.^[2, 6] Restricted access to lethal means was associated with decline in suicide and in many cases also with overall suicide mortality.^[11]

In this study 84% of alcohol dependent patients were intoxicated at the time of deliberate self harm replicating other studies.^[8, 9, 10, 12] Ingestion of alcohol during or before the act sometimes can be considered to be part of the actual method of attempted suicide (when used to bring about unconsciousness, or to increase risk of a fatal outcome), as part of the preparation (to lower the threshold for engaging in an attempt because of disinhibition).^[13] In addition to increasing the likelihood of an attempt, alcohol may add considerably to the danger of overdoses. For those at high risk of repeated suicide attempts, previous self-harm involving alcohol may represent a warning sign and access to medication should be limited to prevent recidivism.^[14] In a qualitative interview of patients' experiences, several participants identified abstaining from alcohol as key to the resolution of deliberate self harm. Given the correlation between alcohol dependence and the risk of deliberate self harm, as well as the potential for brief interventions in emergency departments, this may be an issue for further research, particularly as some participants saw

deliberate self harm as a way of accessing services.^[15]

Majority of our patients had history of stressful situation immediately before the attempt. The negative life events, another distal risk factor was found to be statistically significant in association to deliberate self harm in alcohol dependent patients in this study. Association of masculinity and drinking and use of alcohol as a means of coping with stress by men are key factors behind the rising toll of alcohol-related premature mortality.^[16]

48% reported self harm as an impulsive act. This is similar to another study where the suicide attempters differed from non-attempters by higher levels of impulsive aggression and psychiatric co morbidity, particularly personality and depressive disorders.^[7]

Past history of deliberate self harm was significantly associated with recurrent suicidal attempts in this study similar to observations by Mendelson.^[17] This risk increases with co morbid psychopathology and its severity. Our findings also show a statistically significant risk of repetition of DSH with co morbid psychiatric disorder. Persistence of intention to die among high number of DSH patients with psychiatric co morbidity has important bearing on the plan of management of these patients.^[18]

Compared with non attempters, alcohol dependent attempters had history of deliberate self harm in a close relative. This was similar to other studies.^[19, 20]

In our study 39 % of alcohol dependent subjects with history of DSH had psychiatric co morbidity on assessment and this association was statistically significant. This was similar to other studies.^[20, 21] Higher number of alcohol dependent patients with co morbid depressive disorders had attempted DSH in past 1 year when compared with patients with other co morbid psychiatric diagnosis. Alcohol dependent patients with co morbid depression may be at greater risk of psychosocial and interpersonal problems and attempted and completed suicide.^[4] A review

reported that nearly one third of patients with major depressive disorder also had substance use disorders, and co morbidity yielded higher risk of suicide, greater social and personal impairment and other psychiatric conditions.^[22] Recognition and treatment of depression, especially in men, in primary care remains important in the prevention of suicidal behavior, as is the greater challenge of public education campaigns to improve public (and professional) understanding of mental illness and the effective treatments available.

In one study, alcohol dependent patients with independent major depression were found to be more likely to attempt suicide than those with substance-induced depression.^[21] However, major depression that occurs before the onset of a substance-related disorder might relate differently to suicidal behavior than major depression that occurs during the period of sustained abstinence. The latter is more likely to occur while patients are in treatment.^[22] This differentiation was not possible with our study and this warrants a future prospective to ponder.

All alcohol dependent patients with adjustment disorders resorted to deliberate self harm. Majority of them had psychosocial stressors leading to psychological distress, which in turn may act as a proximal risk factor for suicidal behavior. Proximal risk factors associated with acute intoxication are consistent with Baumeister's escape theory of suicide.^[23]

A high rate of adjustment disorders in this study is probably a reflection of influence of socio cultural milieu. Similar rates were reported by another recent Indian study where adjustment disorder among males and depression and adjustment disorder among females were major psychiatric disorders.^[7]

In our study, those alcohol dependent patients who attempted DSH had multiple psychiatric diagnoses (e.g., depression, Dissocial personality disorder) similar to Hesselbrock et al's observations.^[24] This indicates severity of illness. Presence of psychopathology elevates probability of self injurious behaviors and thoughts, and self-

injury is associated with more symptoms and greater severity of psychopathology among both men and women. Alcohol dependence, depression and antisocial personality disorder form the formidable triad towards self-destruction. Having a personality disorder may be determinant of suicidal behavior in several ways by predisposing to major psychiatric disorders like depressive disorder or alcohol dependence by leading to difficulties in relationship and social adjustment.^[25]

But only 5 among 25 alcohol dependent patients who committed deliberate self harm had bipolar affective disorder. This may be because suicidal attempt is rare in manic phase.

Universal preventive interventions are directed toward the entire population; selective interventions are directed toward individuals who are at greater risk for suicidal behavior; and indicated preventions are targeted at individuals who have already begun self-destructive behavior.^[11] This study is a beginning in this venture which provides an understanding of the burden of DSH from alcohol addiction, emphasizes the need for early identification and intervention, and the need for training primary health care service providers to effectively assess and manage alcohol dependence in primary health care settings.

4.1. Limitation: This was a cross sectional study from a hospital set up which limits the generalizability of the observations. Further current study did not use any structured instruments for assessing patients. Lifetime comorbidity associations and retrospective evaluation of DSH especially when self reported may be subject to recall bias. Tendency of patients and families to keep problems hidden could lead to underestimation of results. A large scale community based study in the same area with validated instruments and questionnaires will give an actual picture of the problem in this community.

4.2. Strength of the study: Cross sectional evaluation of 100 patients with alcohol dependence was done. This was a decent number for any time limited cross sectional research. This study was able to highlight the incidence and pattern of deliberate self harm in alcohol dependent patients.

CONCLUSION

All patients presenting after deliberate self-harm need to be carefully screened for alcohol disorders and for co morbid psychiatric diagnoses. This study suggests that depressive disorder and alcohol dependence are critical combinations for high risk of deliberate self harm. Treatment of deliberate self-harm patients with alcohol disorders should include the treatment of any co morbid psychiatric illness especially depressive disorder. Effective strategies of stress management may help in the reduction of prevalence of psychiatric co morbidities in alcohol dependence and their culmination in deliberate self harm. In addition to increasing the likelihood of an attempt, alcohol may add considerably to the danger of organo phosphorus poisoning and hence appropriate legislative measures should be implemented to restrict its availability. Abstaining from alcohol may be considered as a key to the resolution of deliberate self harm.

Conflict of interest: None declared.

Ethical approval: The study was approved by the institutional Ethics committee.

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