

The Psychopathology and the Sociodemographic Determinants of Attempted Suicide Patients

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ABSTRACT

Background: Suicide and suicidal behaviour are known since the birth of humanity. Unfortunately, it is not possible to predict suicidal behaviour with certainty. Suicide is common, but there scanty data on this topic from India.

Materials and Methods: A cross sectional study was performed for a period of 1 year in a medical college and research center in North India.

Results: A majority of the samples were males (61%), 70% were less than 30 years of age, 57% were married, 25% were

housewives and had high school education. The most common method of suicide was self poisoning (69%), followed by burning, hanging, getting electrocuted and getting run over by trains. The most common psychiatric illness which was found was affective disorder (57%). Depressive disorder (46%) constituted a major category of the affective disorders.

Conclusion: Awareness programmes and preventive measures should be undertaken and a proper psychiatric referral system should be built up to reduce the incidence of suicides.

Key Words: Depressive Disorder, Suicidal Behavior, Self Injury

INTRODUCTION

Attempted suicide, both fatal and non fatal, is a challenging public health issue. Although many terms like deliberate self poisoning and self injury [1], para suicide [2], nonfatal self deliberate harm [3] and pseudo suicide [4] are used, the term 'attempted suicide' continues to have widespread use.

Suicide and suicidal behaviour are known since the birth of humanity. While humanity has triumphed over several diseases that cause suffering and loss of lives, suicidal behaviour still continues to lead to the loss of precious lives. In India, about 100,000 persons commit suicide every year, contributing to about 10% of the suicides in the world [5]. Suicide is among the top 10 causes of death in India and among the top 3 causes of death in those between 16 and 35 years of age [6].

Attempted suicide is regarded by many as an irrefutable evidence of a psychiatric disorder. Harrington and Cross were the first to question this. Various studies have found varying degrees of psychopathology in the suicide attempters. Among the psychiatric disorders, mood disorders are the ones which are most commonly associated with suicide attempts. As there is a lack of data in Punjab regarding the psychopathology in suicide attempters, we aimed to conduct this study.

MATERIAL AND METHODS

This study was conducted in a medical college in the Malwa region of Punjab, in North India, from January 2010 to December 2010. After getting permission from the institutional ethics committee, the cases who were kept under observation were interviewed. The inclusion criteria of a case with a suicide attempt, was a patient who reported to the causality department with a suicide attempt and was later shifted to the hospital, to the patient services. Those cases who attempted suicide and received treatment outside, were later shifted to the hospital, to the Psychiatry department for

further management. Those patients who were not willing and who had initially admitted a suicide attempt but had later denied it, were not included in the study.

A total of 100 patients were studied. Whenever possible and as advised, these subjects were shifted to the Psychiatry ward or were called for follow up to the Psychiatry O.P.D. An informed consent was taken from the family members after explaining the purpose of the study to them. The general descriptive and demographic data and the psychiatric history were recorded by holding a semi structured interview. The present status examination was carried out with the help of a structured proforma which was developed by Wing et al. The psychiatry diagnosis of the probands were made according to I.C.D. [10].

RESULTS

Of the 100 patients, 61 were males and 39 were females. A majority of the samples belonged to the less than 30 years age group (70%), had an urban residence (68.9%), were married (57%), had a high school education (55%) and belonged to joint families (53%). The samples included 25% housewives, 15% students, 10% business men, 9% farmers and 9% unemployed people. The most common method of suicide was poisoning (69%), followed by burning (13%), hanging (6%), stabbing (4%), jumping from heights (3%), getting electrocuted (2%) and getting run over by trains (1%). A majority of the suicide attempters were suffering from mood disorders (57%). Depression was found in 46% subjects, out of which 30% had severe depressive episodes, 9% had recurrent depression, 6% had bipolar illness with currently depressive episodes and 1% had dysthymia. In addition, 4% of the subjects had bipolar illness (currently manic), 5% had bipolar illness (currently mixed), 2% had manic episodes and 2% had psychotic symptoms which were associated with affective disorders. All the 19 cases of substance dependence were exclusively males (31.1%). There were 3 cases of schizophrenia and delusional disorder. Others

Age in Year	Male (61)	Female (39)
20 and Younger	16 (26%)	12 (30.8%)
21 – 30	30 (49%)	12 (30.8%)
31 – 40	12 (19.6%)	14 (36%)
41-50	2 (3.5%)	1 (2.6%)
51 and older	1 (1.6%)	0 (0%)

[Table/Fig-1]: Sociodemographic variable study characteristics

Married	31 (50.8%)	26 (66.7%)
Single	31 (50.8%)	10 (25.6%)
Separated/ Divorced/ Widowed	2 (3.2%)	3 (7.8%)

[Table/Fig-2]: Marital Status

Urban	42 (68.9%)	27 (69.2%)
Rural	19 (31.1%)	12 (30.8%)

[Table/Fig-3]: Residence

Joint Family	32 (52.5%)	21 (53.8%)
Nuclear Family	29 (47.5%)	18 (46.2%)

[Table/Fig-4]: Family Type

Professional degree	1 (1.6%)	0
Graduate	6 (9.8%)	13 (33.3%)
High School	38 (62.3%)	17 (43.6%)
Primary School	10 (16.4%)	5 (12.8%)
Illiterate	6 (4.8%)	4 (10.3%)

[Table/Fig-5]: Education

Housewives	0	25 (64%)
Students	5 (8.2%)	10 (25.7%)
Businessmen	10 (16.4%)	0
Office Worker	3 (4.9%)	0
Professional	0	3 (7.1%)
Farmers	9 (14.8%)	0
Unskilled Workers	1 (1.6%)	1 (2.6%)
Skilled Worker	18 (29.5%)	0
Unemployed	9 (14.8%)	0

[Table/Fig-6]: Occupation

were 1 male with a personality disorder, 1 female with an organic mental disorder and 1 female with an adjustment disorder, with a depressed mood. Epilepsy was present in 2 cases. One of these was also diagnosed as an affective disorder, a manic episode without psychotic features. Co morbidity of the affective disorder with substance dependence was present in 2 cases. There was a F32.2 severe depressive episode without psychotic features with F19.2 multiple drug dependence in one case. The other proband with co morbidity had a F31.1 bipolar affective disorder (currently manic) with F19.2 multiple drug dependence. Previous suicide attempts were present in 22 cases. Of these, 10 had made a single suicide attempt and 12 had made multiple suicide attempts.

DISCUSSION

The present study was carried out with an aim to evaluate the psychopathology in the suicide attempters. The demographic factors which were associated with attempted suicide were also studied. Our previous study was conducted to evaluate the psychiatric

Method Used	Male	Female
Poisoning	41 (67.2%)	28 (71.8%)
Hanging	41 (67.2%)	28 (71.8%)
Jumping from heights/ Drowning/ Getting run over by trains/ Stabbing	7 (11.4%)	3 (7.8%)
Burning	7 (11.5%)	6 (15.4%)
Getting electrocuted	2 (3.3%)	0

[Table/Fig-7]: Methods and characteristics in patient of suicide attempts

Single pass suicide attempts	5 (8.2%)	5 (12.8%)
Multiple pass suicide attempts	6 (9.8%)	6 (15.3%)

[Table/Fig-8]: Previous suicide attempts

Psychiatric disorder among suicide attempters	Male	Female	Total
Organic mental disorders F06.30 Organic depressive disorder		1 (2.6%)	1 (1%)
Mental and behavioral disorders due to psychoactive substance use F10-F19	19 (31.1%)	0	19 (19%)
Schizophrenia, schizotypal and delusion disorders F20.0 Paranoid Schizophrenia F22.0 Delusion disorder	2 (3.2%) 1 (1.6%)		3 (3%)
Mood [affective] disorders F30-F39	34 (55.7%)	23 (58.9%)	57 (57%)
Neurotic, stress related and somatoform disorders F43.20 Adjustment disorder, brief depressive reaction		1(2.6%)	1 (1%)
Personality disorders F60.31 Emotionally unstable personality disorder, borderline type	1(1.6%)		1 (1%)
No psychiatric disorder	7 (11.5%)	14 (35.9%)	20 (20%)
Total	61	39	100

[Table/Fig-9]: Distribution of psychiatric disorders among suicide attempters according to sex

morbidity and the socio-demographic determinants of self harm. The difference between attempted suicide and self harm is that, the intention in self harm is to gain attention but not to end the life. The injury in self harm is not life threatening, whereas in suicide, the intention is to kill oneself, with a fatal outcome. The purpose in suicide is to escape from life, whereas the purpose in self harm is to express anger, push oneself, generate normal feelings and to distract oneself.

In this study, males outnumbered the females (61% v/s 39%), which correlated with the findings of other studies [7,8,9,10]. The mean age of the sample was found to be 26.98 +8.13 years, which corroborated with the findings of other studies [7,11,12]. There were more people from the urban areas as compared to those from the rural areas (69% v/s 31%). The reason for this could be that this study was conducted in a referral hospital in an urban city. Housewives constituted the largest occupational group (64% female suicide attempters), followed by skilled workers (29.5%), businessmen (16.4% of male probands) and farmers (9%), which was accordance with the findings of other studies [9,10,13]. Unemployment was an important factor which contributed to the suicidal behaviour [14]. As marriage is an important cultural factor in India, most of the suicidal attempters were married, which was similar to the findings of other studies [7,10,11,12,15]. A majority

ICD-10 CODE	Mood [affective] disorder	Males		Females		Total	
		No	% age	No	% age	No	% age
F30.1	Affective disorder , Manic episode, without psychotic features	1	1.6%	1	2.6%	2	2%
F31.1	Bipolar affective disorder, currently manic without psychotic features	3	4.9%	1	2.6%	4	4%
F 31.4	Bipolar affective disorder, currently depressed without psychotic features	5	8.1%	1	2.6%	6	6%
F 31.6	Bipolar affective disorder, currently Mixed	2	3.2%	3	7.6%	5	5%
F32.2	Severe depressive episode, without psychotic features	17	27.0%	12	30.0%	29	29%
F32.30	Severe depressive episode, severe with psychotic features	1	1.6%	–	–	1	1%
F 33.2	Recurrent depression, current episode without psychotic features	3	4.9%	5	13.0%	8	8%
F33.30	Recurrent depression, current episode server with psychotic features	1	1.6%	–	–	1	1%
F 34.1	Persistent mood(affective) disorder, dysthymia	1	1.6%	–	–	1	1%
Total		34	55.7%	23	59.0%	57	57%

[Table/Fig-10]: Distribution of mood disorders in suicide attempters:

of the cases had high school education, which was consistent with the findings of 2 Indian studies [9,15]. Self poisoning was the most commonly adopted method for attempting suicide, which was also supported by the findings of other Indian studies [8,10,19]. This may be due to the easy availability of insecticides and pesticides in every home. In particular, pesticide self poisoning is now considered by the WHO to be the commonest method of committing suicide [16,17], but it is rarely seen in the western countries (18). Among the psychiatric disorders, affective disorders were the commonest (57%), which was supported by the findings of Indian [7,10,14,19] as well as western studies [20,21,22,23]. 19 subjects had substance dependence. Some studies [10,21] had reported a higher percentage of substance dependence, while some had reported the reverse [22]. The variations in the findings of these studies and of the present study are probably due to the differences in the diagnostic criteria which were used by the various researchers.

LIMITATIONS

Our study was a hospital based study where a majority of the patents got admitted from the urban population. Most of the cases of suicidal attempts were not referred for psychiatric assessment and many of the family members didnt want to disclose the true facts because of the possible legislative actions. The findings of the present study may not be applicable to other regions. So, the findings of our study should be interpreted in this background.

CONCLUSION

The findings and the interpretations on the patients in our study were confined to the hospital patients only, which is the tip of the iceberg. So, population based studies should be promoted.

REFERENCE

- [1] Kessel N. Self poisoning. *British Medical Journal*- 1965; ii: 1265- 70 and 1336.
- [2] Kreitman N, Philip AE, Greer S, Bagely. Parasuicide. *British Jr of Psychiatry* 1969;15:746.
- [3] Morgan HG, Barton J, Pottle S, Pocock H, Burns- Cox CJ. Deliberate self harm – A follow up of 279 patients. *British Jr of Psychiatry* 1976 ; 126: 319-28.
- [4] Lenard Jones JE, Asher RC. Why do they do it ? A study of suicide. *Lancet* 1959;1: 1138-49.
- [5] Vijay Kumar L. Prevention; the urgent need in developing countries. *World Psychiatry* 2004; 3:158-9.
- [6] Government of India, Nation crime record bureau 2002. Available at <http://www.india stat.com>.
- [7] Satyavati K. Attempted suicide in psychiatric patients.
- [8] Ponnudurai R, Jeyakar J, Saraswathy M. Attempted suicide in Madras. *Indian Journal of Psychiatry* Jan 1986; 28 /1 59-62.
- [9] Gupta SC, Singh H. Psychiatric illness in suicide attempters. *Ind. J. of Psychiatry* 1981; 23/ 1: 69-74.
- [10] Jain V, Singh H, Gupta SC, Kumar S. A study on hopelessness, suicidal intentions and depression in cases of suicide attempts. *Indian J of Psychiatry* 1999; 41 20: 122-130.
- [11] Venkoba Rao A. Suicide attempters in Madurai. *Journal of Indian Medical Association*; 1971; 57/ 8: 278-284.
- [12] Weissman MM. The epidemiology of suicide attempts. *Archives of Psychiatry* 30:737-746.
- [13] Adityarjee. Suicide attempts and suicide in India. *International Journal of Social Psychiatry* 1986; 32:64-73.
- [14] Bagadia VN, Ghadiali HN, Mankodi R, Shah LP, Saraf KR. Unemployment and attempted suicide. *Indian Jr of Psychiatry* 18: 131
- [15] Lal N, Sethi BB. Demographic and socioeconomic variables in attempted suicide by poisoning. *Indian Jr of Psychiatry* 17: 100-107
- [16] Murphy GE, Wetzel RP. A family history of suicidal behavior among suicide attempters. *The Journal of Nervous and Mental Disease* 170/ 2: 86
- [17] Mitterauer B, Leibetseder H, Pritz WF, Sorgo G. Comparison of the psychopathological phenomina of 422 manic depressive patients with suicide positive and suicide negative family histories. *Acta Psychiatrica Scand*, 1988; 77: 438-42.
- [18] Johnson BA, Brent DA, Bridge J, Connolly J. The familial aggregation of adolescent suicide attempts. *Acta Psychiatric Scand* 1998; 97: 18-24.
- [19] Badrinaryana A. Suicidal attempt in Gulbarga. *Ind. J. of Psychiatry* 1977; 19/4: 69-70,
- [20] Gregory JR. Grief and loss among Eskimos who attempted suicide in western Alaska. *Am. J. Psychiatry* 1994; 151: 1815-1816.
- [21] Stenager EN, Jensen K. Attempted suicide and contact with the primary health authorities. *Acta Psychiatr Scand* (Denmark), Aug 1994; 90/2: 109-13.
- [22] Pelkonen M, Marttunen M, Pulkkinen E, Laippala P, Aro H: Characteristics of out patient adolescents with suicidal tendencies. *Acta. Psychiatric Scand*. 1997; 95: 100-107..
- [23] Beautrais AL, Joyu PR, Muldev RT: Psychiatric illness in a New Zealand sample of young people making serious attempts. *New Zealand Medical Journal* 1998; 111 : 44-48..
- [24] Das PP, Grover S, Avasthi A. Intentional self harm which was seen in psychiatric referrals in a tertiary care hospital. *Indian Journal of Psychiatry* 2008;50: 187-192.
- [25] Chowdhary AN, Banerjee S, Brahma A. A prospective study of suicidal behaviours in the Sunderbans delta. *National Med. Journal of India* 2010; 23: 201-205.

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