



Identifying Risk Factors From Psychiatric History of Deliberate Self-Harm In Young Women With Tertiary Care

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ABSTRACT

Suicide attempts can be 10-40 times more frequent than completed suicides. Also, 15-23% of those who attempted suicide will receive treatment for a subsequent attempt within one year. Psychiatric illness is a factor in at least a third of the cases of completed suicides. Those who completed suicide or made serious attempt were psychotic and associated with any clinical psychiatric disorder. So the present study aimed that to identify the risk factors from the Psychiatric history of Deliberate Self-Harm in young women attending a tertiary care in the hospital. 50 patients those who are female patients aged between 12 – 24 years presenting with deliberate self harm using purposive sampling technique. Personal data blank and Case History Scheme and Mini International Neuro Psychiatric Interview (M.I.N.I PLUS) were used as a instruments. The study findings shows risk factors from the psychiatric history that, past history of medical illness, past suicidal attempt, history of abuse, family history of alcoholism and commonest psychiatric disorder is adjustment disorder. Hence, prevention and intervention will be helpful to treat psychiatric risk factors.

KEYWORDS : Suicide, Deliberate self Harm and Psychiatric history

INTRODUCTION

A high suicide rate in any society is an index of social disorganization (Gouda NM & Rao SM, 2008). In the last two decades the suicide rate has increased from 7.9 per lakh in 1985 to 10.3 per lakh in 2005 (Accidental deaths and suicides in India, 2006). The number of suicides in the country during the decade (1999-2009) has recorded an increase of 15% (from 1, 10, 587 in 1999 to 1, 27, 151 in 2009) (National Crime Records Bureau, 2011). The frequency of psychiatric disorders as reported in Indian studies ranges between 5.5 to 93% (Chandrasekaran R et al., 2003).

Although suicide can be interpreted as a deeply personal and an individual act, suicidal behavior is determined by a number of individual and social factors. Ever since it was proposed that suicide was an outcome of social / societal situations (Vijayakumar L, 2006). One stressor is almost invariably the onset or acute worsening of a psychiatric disorder, but other type of stressors, such as a psychosocial crisis, can also contribute. The diathesis for suicidal behavior includes a combination of factors, such as sex, religion, familial and genetic components, childhood experiences, psychosocial support system, availability of highly lethal suicide methods, and various other factors. Suicide can therefore, be understood as a multidimensional phenomenon with mental disorders occupying a premier position in the matrix of causation (Mann JJ, 2002).

Most suicides occur in patients with psychiatric disturbances that in most cases are probably treatable. A meta-analytic study found that 36 out of 44 psychiatric disorders showed an increased risk of suicide. Notably, only mental retardation and dementia did not exhibit increase in suicide risk (Harris E C. Barradough B, 1997). The psychiatric diagnoses of depression, substance abuse, and aggressive behavior disorders, have been found to distinguish attempters in carefully controlled studies in community and clinical population of adolescent and adults (Andrews JA, Lewinsohn PM, 1992). Depressive disorders are the major risk factor, a risk probably linked to a current episode just before the attempt. The association of depressive episodes to an anxiety disorder or the existence of impulsive traits (and/ or cluster B personality disorder or drug abuse) increases the risk of acting out. Ideation and attempts show parallel onset curves peaking between

the ages of 14 and 20 years, with the existence of a previous DSM-III-R diagnosis as a strong predictor. The number of associated disorders linearly increases the probability of attempting suicide and is the only significant predictor for lethality (Lecrubier Y, 2001). 33% had adjustment disorder, 32% had major depression and 10% had alcohol abuse / dependence in a sample of 100 suicide attempters (Kumar PN, 1998).

There are 57.5% of subjects had psychiatric illness. Among the subjects 37.5% had depressive episodes, 5.4% had adjustment disorders, 5.4% had schizophrenia, 3.6% had obsessive compulsive disorder and 5.3% had drug dependence (Jain V, Singh H, Gupta SC and Kumar S, 1999). Narang et al., (2000) revealed that 57% had a psychiatric diagnosis with 35% having mood disorder, 13% adjustment disorders, 3% substance use and schizophrenia each and 1% of personality disorder, panic disorder and dissociative disorder. A retrospective study was carried out by Sanjush Baby, Manju P, Haridas and Yesudas KF, (2006) concluded that 40% cases had adjustment disorders, 28% had depression, 1% had alcohol dependence and 73% had identifiable stressors.

Mood disorder is the diagnostic category most often represented among persons who attempt suicide. Studies show that the presence of mood disorders in persons who attempt suicide ranges from 45% to as high as 77% and mood disorder as the strong predictor than other disorders for suicide (Kessler et al., (1999). Goodwin and Jamison (1990) stated that the rate of suicide completion associated with untreated bipolar disorder to be as high as 19%, and estimated that 25% to 50% of patients with bipolar disorder make at least 1 suicide attempt during their life span.

Various studies show that affective illness is the commonest diagnosis in suicide attempters and completers. A study by Haw et al., (2001) on 150 patients with deliberate self-harm, found that disorders with prominent depressive symptoms (Depressive episode, F32; Dysthymia, F34; Schizoaffective disorder – Depressive type, F21.1; Mixed anxiety and depressive disorder, F41.2; Adjustment disorder with Depressive symptoms, F43.2) were present in 117 cases (78%). There were no gender differences in the presence of severity of a Depressive episode.

One of the most important findings of recent years is that anxiety, particularly panic, is a major short-term risk factor. Fawcett et al., (2003) found that six of the factors were correlated with suicide within the first year of the follow-up; panic attacks, severe psychic anxiety, diminished concentration, global insomnia, alcohol abuse, and anhedonia. In a meta analysis by Harris and Barraclough, (1997) revealed that suicide risk was six times the expected rates for those with anxiety neurosis and suicide risk to be 14 times the expected value in adjustment disorder. Risk was estimated to be highest in the first 3 months after hospital discharge. Risk for those with panic disorder was estimated to be 2 times (range=0–37.5 times), and those with OCD to be 10 times the expected rates. Indian studies have quoted rates from 0% to 34.6% for the diagnosis of adjustment disorder.

Schizophrenia has been found to be associated with increased risk of suicide in multiple studies. Inskip H M, Harric E C, Barraclough B, in 1998 estimated the lifetime risk for suicide as 4%. Suicide attempters were reported to be precipitated by depression (27%), loss of a significant other or other stressful life event (24%), being bothered by psychotic symptoms (11%), and responding to command hallucinations among patients with schizophrenia (4%) (Harkavy Friedman et al., 1999).

Personality disorder in self-immolators had been the focus in many studies. Certain researchers had opined that the incidence of personality disorders was higher in burns patients than in normal population. In a study of burns patients, 33% had character disorder. Antisocial personality disorder was over represented in many studies of burns patients (Noyes et al., 1992). In the study by Suominen et al., (1996), personality disorder diagnosis was made in 40% of cases. Borderline personality disorder was more common in females (26%) than in males (9.1%). One third of all cases received a diagnosis of personality disorder NOS, because of the mixed features involved. In a study by Chandrasekaran et al., (2003) on 341 first time suicide attempters, 7% of the patients had a diagnosable personality disorder. The most common personality disorders identified in the study were, Anankastic personality disorder (1.7%) followed by histrionic personality disorder (1.46%).

There are huge studies available related to suicide but very few studies on women attempting suicide and there are only small amount of studies in young women attempting suicide and related risk factors. Based on above facts as a consideration to identify the risk factors risk factors from the psychiatric history of deliberate self-harm in young women. This will be helpful to intervene or develop a new module or strategy for preventing the Suicidal attempt.

METHODOLOGY

Aim:

To identify the risk factors from the Psychiatric history of Deliberate Self-Harm in young women attending a tertiary care in the hospital

Objectives:

To identify the risk factors in terms of,

- Past Medical and Past Psychiatric History
- Past Suicidal Attempt and Family History of Suicide
- Family History of Alcohol use, History of Abuse and Menstrual phase
- Day of attempt and Reason for the Act
- Methods of Suicide and Psychiatric diagnosis
- Events in one year and Life time

Sample:

50 patients those who are female patients aged between 12 – 24 years presenting with deliberate self harm using purposive sampling technique and selected from Pondicherry Institute of Medical Sciences for a period of one and a half years after obtaining ethical clearance for the study from the institutional ethical committee. Patients who refused to sign the informed consent and patient who were chronically/seriously ill and/or medically ill were excluded.

INSTRUMENTS USED:

Personal data blank and Case History Scheme:

It includes age, education, past medical, past psychiatric history, past suicidal attempt, family history of suicide, family history of alcohol use, history of abuse, menstrual phase, day of attempt, reason for the

act, methods of suicide, psychiatric diagnosis and events in one year and lifetime.

Mini International Neuro Psychiatric Interview (M.I.N.I PLUS):

M.I.N.I PLUS developed by Sheehan et al., in 1998 is a structured diagnostic interview designed to provide a brief diagnostic evaluation of most common mental disorders. It includes 23 disorders. It features questions on rules-out, disorder typing, chronology and includes modules for somatization disorders, conduct disorder, attention-deficit/hyperactivity disorders, adjustment disorders, premenstrual dysphoric disorder and mixed anxiety-depressive disorders. It takes approximately 45-60 minutes to administer. The MINI PLUS provides diagnosis according to DSM-IV and ICD-10 criteria and thus it was intended to be used internationally.

Procedure:

After getting informed consent form by the participants, 50 patients aged between 12 – 24 years presenting with deliberate self harm. The patients who underwent tracheostomy were assessed when tracheostomy was closed & when they were able to communicate properly. Patients were explained about the nature of study & informed that their non-participation will not affect the treatment in anyways. Confidentiality and anonymity was assured. Personal data blank, case history scheme and MINI International Neuro Psychiatric Interview were administered.

RESULTS AND DISCUSSION

For identifying the risk factors from the psychiatric history, frequency and percentages were performed.

Table 1 shows the Frequency and Percentage of Age and Education of Deliberate Self-Harm in Young Women with Tertiary Care (n=50)

Variables		Frequency	Percentage
Age	12-18	17	34.0%
	19-24	33	66.0%
Education	Primary	2	4.0%
	High School	19	38.0%
	Intermediate	10	20.0%
	Graduate	19	38.0%

In the sample of 50 patients, 34% of the patients were between the age group of 12-19 years and 66% of the patients were between the age group of 19-24 years. Thirty eight percent of the subjects in the present study sample were graduates and thirty eight percent had completed or were studying in high school, twenty percent had finished or were studying intermediate schooling. Only four percent fell in the category of primary school education.

Table 2 shows the Risk factors from the Psychiatric History of Deliberate Self-Harm in Young Women with Tertiary Care (n=50)

Risk Factors		Frequency	Percentage
Past Medical History	Yes	3	6.0%
	No	47	94.0%
Past Psychiatric History	Yes	0	0%
	No	50	100%
Past Suicidal Attempt	Yes	4	8.0%
	No	46	92.0%
Family History of Suicide	Yes	4	8.0%
	No	46	92.0%
Family History of Alcohol Use	Nil	27	54.0%
	Husband	6	12.0%
	Father/Brother	16	32.0%
	Husband + Father/Brother	1	2.0%
History of Abuse	Yes	3	6.0%
	No	47	94.0%
Menstrual Phase	Follicular	38	76.0%
	Luteal	12	24.0%

Day of Attempt	Week Days	29	58.0%
	Saturday/ Sunday	21	42.0%
Reason for the Act	Interpersonal Problem	34	68.0%
	Broken Love Affair	9	18.0%
	Failure In Exams	4	8.0%
	Severe Pain	3	6.0%
Method Used	Op Poisoning	21	42.0%
	Drug Overdose	15	30.0%
	Corrosive Poisoning	4	8.0%
	Rodenticides	4	8.0%
	Others	6	12.0%
Psychiatric Diagnosis	Nil	43	86.0%
	Major Depression	2	4.0%
	Dysthymia	1	2.0%
	Adjustment Disorder	4	8.0%
Events in One Year and Life Time	<=2 & <=2	4	8.0%
	<=2 & >=3	9	18.0%
	>=3 & <=2	21	42.0%
	>=3 & >=3	16	32.0%

Figure (a) shows the Percentage distribution of used methods of suicide

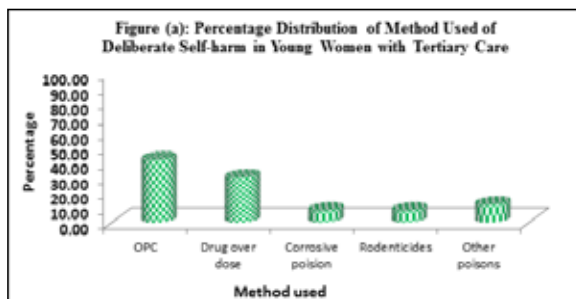


Figure (a) shows that the use of poison was the method used by almost two – thirds of subjects in this study. The most common method of deliberate self harm in this sample was by ingestion of Organophosphorous compound poison (42%), the next common method was drug overdose (30%) (commonly used were paracetamol, voveran, few subjects used oral hypoglycemic agents, anti-hypertensive and benzodiazepines), 8% subjects used corrosive poisons like laundry detergents, floor cleaning agents, bathroom cleaning acids. Consumption of rodenticides was the method used by 8% of subjects and 12% subjects used other poisons like hair dye, medicated hair oil and hair shampoo.

Figure (b) shows the Percentage distribution of Psychiatric diagnosis

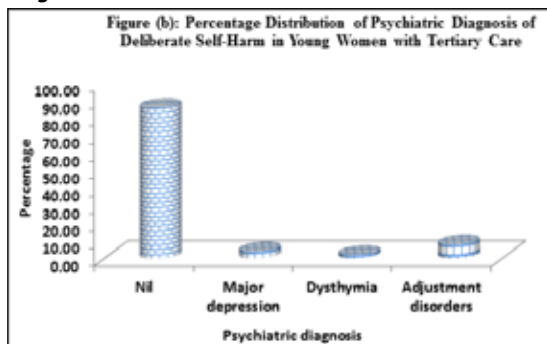


Figure (b) shows that the majority of the subjects (86%) in this sample did not have any psychiatric diagnosis. As low as 4% subjects had major depression. Only one subject (2%) had Dysthymia and 8% cases had adjustment disorder.

DISCUSSION

Through this study, an attempt was made to study the risk factors such as Past Medical and Past Psychiatric History, Past Suicidal Attempt and Family History of Suicide, Family History of Alcohol use, History of Abuse and Menstrual phase, Day of attempt and Reason for the Act, Methods of Suicide and Psychiatric diagnosis and Events in one year and Life time associated with deliberate self-harm in young women.

Past Medical and Psychiatric History:

In the present study, 6% of the subjects reported of significant past history of medical illness. Ninety four percent did not have a past history of medical illness. However, the six percent of the subjects did not have any association between their past medical illness and the current attempt. There is a western study (Najomia et al., 2008) and an Indian study (Srivatsava et al., 2004), that found high rates of deliberate self-ham among patients with physical illness in their sample population. None of the participants in this study had a past history of psychiatric illness. This finding is similar to the findings of an Indian study (Parkar SR, Varsha Dawani and Mitchell G Weiss, 2006). On past Suicidal attempt shows that eight percent of the study sample had past history of deliberate self- harm. This is comparable to findings from another similar Indian study (Pratha Pratin Das et al., 2008).

History of Abuse and Family history of Alcohol Use:

A very low percentage of the sample have reported of history of abuse (verbal, physical, psychological, sexual). This low rate may be due to safe guard the family's reputation or due to the threat given by the concerned individual involved. However, in a study by Arabinda N Chowdhury, Arabinda Brahma, S. Banerjee, M.K Biswas (2009) had found a significant relationship between abuse and deliberate self-harm. Nearly half of the subjects had family history of alcohol use, either in husband or in father / brother or in both. In an Indian study by Partha Pratim Das et al., (2008) found that 85.5% of the subjects in his sample had a family history of substance use.

Menstrual Phase:

Baca- Garcia, Diaz- Sastre C, de leon J, Saiz- Ruiz J (2000) in their study found that the number of self- harm behaviors during the follicular phase was high. This finding with the menstrual phase correlates with the above finding. A contrary finding was reported by Moasari S.Gh, Koocheky A, Bateni v, Ardanian (2008) in which most women were found to be in luteal phase at the time of deliberate self- harm.

Reason/Precipitating Event Prior To Deliberate Self-Harm:

The commonest precipitating event was interpersonal problems (with parents, siblings, friends, boyfriends, spouses) that accounted for sixty eight percent, followed by broken love affair and failure in exams. A very few subjects accounted severe pain as the reason for deliberate self-harm. Siwach and Gupta (1995) reported marital disharmony, economic hardships and scolding, disagreement with other family members as the major precipitating factor. Failure in examination was an important antecedent in student population was the finding reported was the finding by an Indian study (Pratha Pratin Das et al., 2008).

Method Used:

No one in the present study sample used violent methods like hanging, drowning, self- immolation and jumping from the height, whereas a finding reported by Agharwa (2000), 12.8% of his study sample used violent methods. In the present study finding that, organophosphorous compound poisoning was the method used by the majority of the subjects. This finding is common with several other Indian studies (Logaraj, M., Ehitajan, N., Feliz, J., & Roseline,F, 2005; Nagaraj, R., Mishra, B., & Mphan, 2000; Latha K S, Bhat S M, D'souza P, 1996; Kumar P N S, 1998; Sanjush Baby, Manju P, Haridas and K F Yesudas, 2006). Whereas, drowning was the commonest method reported in an Indian study (Sathyavathi 1971). Aghanwa (2000) found that 46.2% of his study subjects took drug overdose, which is the second commonest method used by the subjects in our sample.

Psychiatric Diagnosis:

The majority (86%) of our subjects did not have a psychiatric diagnosis and only 14% subjects had a psychiatric diagnosis. This finding is in line with the findings of Srivatsava et al (2004). Yet another study

reported a similar finding (Pratha Pratin Das, 2008). Parkar SR, Dawani V, Weiss MG (2006) found that 45% of his study subjects did not have a diagnosable psychiatric illness.

The commonest psychiatric diagnosis in our sample was adjustment disorder (8%). Kumar PNS (1998) found the same diagnosis to be the commonest diagnosis among his study sample. Dysthymia accounted for 2% and depression accounted for 4% in the current study, whereas, depression was found to be the most common psychiatric illness associated with deliberate self-harm in several other studies (Chandrasekaran R et al., 2003; Kumar C T S & Chandrasekaran R A, 2000 and Parkar SR, Varsha Dawani and Mitchell G Weiss, 2006).

Stressful Life Events:

Majority of the subjects had experienced more number of stressful life events in the past one year than compared to that of life time, which signifies that the recent stressful life events had played a significant role in the act of deliberate self-harm. Srivatsava et al (2004) reported of 34% subjects in his study sample had experienced stressful life events in 6 months prior to the attempt. Similar finding was reported in several other studies (Latha K S, Bhat S M, D'souza P, 1996 and Kumar C T S & Chandrasekaran R A, 2000).

FINDINGS OF THE PRESENT STUDY:

The present study findings revealed that 6% of the subjects reported of significant past history of medical illness, past Suicidal attempt shows that eight percent of the study sample had past history of deliberate self-harm, very low percentage of out sample have reported of history of abuse (verbal, physical, psychological, sexual), nearly half of the subjects had family history of alcohol use, either in husband or in father / brother or in both, the commonest precipitating event was interpersonal problems (with parents, siblings, friends, boyfriends, spouses) that accounted for sixty eight percent, followed by broken love affair and failure in exams. A very few subjects accounted severe pain as the reason for deliberate self-harm, organophosphorous compound poisoning was the method used by the majority of the subjects and commonest psychiatric diagnosis in our sample was adjustment disorder (8%). Majority of the subjects had experienced more number of stressful life events in the past one year than compared to that of life time, which signifies that the recent stressful life events had played a significant role in the act of deliberate self-harm. These findings are evident for the risk factors from psychiatric history and associated factors. Thus, prevention and intervention will be provided for the patients with deliberate self harm to treat the associated conditions. One of the greatest limitation is small sample size and additional variables will be used for further studies.

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