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**Short Communication**

# Prevalence and correlates of suicidal ideation and attempts in patients with bipolar mood disorder- a retrospective study

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Suicide , Bipolar affective disorder, Suicidal ideation ,Suicidal attempt.

**Abstract**

Background: Suicide which is a highly individualized act is a common endpoint for many patients with severe psychiatric illness especially bipolar affective disorder.
Objective: To investigate the prevalence of and risk factors for suicidal ideation and attempts among representative samples of psychiatric patients with bipolar affective disorders.
Methods: The study design was a retrospective one. Charts were screened over a time period from June 2012- December 2012. The charts which were diagnosed as bipolar affective disorder were included in the analysis. The patients were diagnosed using DSM IV TR criteria. The charts were analyzed for the sociodemographic data, age at onset, past, personal and family history, symptamatology, presenting symptoms, treatment details.
Results: T he total number of charts which met the inclusion and exclusion criteria were 50 in number. About 34(68%) were males and 16(32%) were females, 35(70%) were married. Most of the sample 64 %( 34) were from 20-40 age group and 84% were educated, almost all the subjects came from the middle and lower socio economic strata. Study found that 5(10%) patients had attempted suicide and 14(28%) had suicidal ideation; all attempters also reported ideation. On comparing the people who attempted suicide with those who had suicidal ideation there was a significant difference (p<.oo5).
Conclusion: The study gives important implications in terms of the assessment and emphasis on risk factors .The immediate implication of this study is the importance and need for proper assessment, follow up and psycho education of the patients suffering from bipolar disorder in order to reduce a significant morbidity of suicide



## INTRODUCTION

Suicide which is both a stereotypic yet highly individualized act is a common endpoint for many patients with severe psychiatric illness[1]. Suicide is among the top three causes of death among youth worldwide. According to the WHO, every year, almost one million people die from suicide and 20 times more people attempt suicide; a global mortality rate of 16 per 100,000, or one death every 40 seconds and one attempt every 3 seconds, on average. Suicide worldwide was estimated to represent 1.8% of the total global burden of disease in 1998; in 2020, this figure is projected to be 2.4% [1]. The majority of suicides (37.8%) in India are by those below the age of 30 years. The fact that 71% of suicides in India [2] are by persons below the age of 44 years imposes a huge social, emotional and economic burden on our society. The near-equal suicide rates of young men and women [3] and the consistently narrow male: female ratio of 1.4: 1 denotes that more Indian women die by suicide than their western counterparts. Poisoning (36.6%), hanging (32.1%) and self-immolation (7.9%) were the common methods used to commit suicide [4]. Although suicide is a deeply personal and an individual act, suicidal behavior is determined by a number of individual and social factors [5]. The debate on vulnerability of individuals *vs.* social stressors in the causation of suicide is relevant today. Suicide is best understood as a multidimensional, multifactorial malaise [6]. Suicide is perceived as a social problem in our country and hence, mental disorder is given equal conceptual status with family conflicts,

social maladjustment etc.[4] As per statistics, the reason for suicide is not known in about 43% of cases while illness and family problems contribute to about 44% of suicides. Mental disorders occupy a premier position in the matrix of causation of suicide. Majority of studies note that around 90% of those who die by suicide have a mental disorder [5].

It is observed that affective disorders are the most important diagnosis related to suicide [6]. In Chennai (India), 25% of completed suicides were found to be due to mood disorders [7]. The majority of cases committed suicide during their very first episode of depression and more than 60% of the depressive suicides had only mild to moderate depression [6]. The significant risk factors for fatal suicide include presence of previous suicidal attempt, interpersonal conflicts marital disharmony, alcoholism, presence of a mental illness, sudden economic bankruptcy, domestic violence, and unemployment [5].Individuals completing suicides did not have a positive outlook towards life, problem-solving approaches, and coping skills. 45-70% of suicides have mood disorder [8].15% of mood disorders subsequently commit suicide [8]. 19-24% of suicides have a prior suicide attempt. Bipolar subjects with history of suicidal attempts experience more episodes of depression and react to them by having severe suicidal ideation. The first 7-12 years subsequent to onset of affective illness and less than 35 years may be high risk period for suicide [8,9].

## OBJECTIVE

Few studies have investigated the prevalence of and risk factors for suicidal ideation and attempts among representative samples of psychiatric patients with bipolar affective disorders

## METHOD

The study design was a retrospective one. All the patient's charts maintained at the outpatient section of the psychiatry department of Sir Sunder Lal hospital of Institute of Medical Sciences, Banaras Hindu University, Varanasi, India were screened over a time period from June 2012- December 2012. The charts which were diagnosed as bipolar affective disorder were included in the analysis. The patients were diagnosed by the consultant in charge using DSM IV TR criteria. The charts were analyzed for the sociodemographic data, age at onset, past, personal and family history, symptamatology, presenting symptoms, treatment details. The presence of suicidal attempt, suicidal ideation were assessed based on the information available in the charts. Charts having incomplete data, unclear diagnosis, those who had come alone hence the data was unreliable were excluded from the study.

## RESULTS

The total number of charts which met the inclusion and exclusion criteria were 50 in number. About 34(68%) were males and 16(32%) were females, 35(70%) were married. Most of the sample 64 %( 34) were from 20-40 age group and 84% were educated, almost all the subjects came from the middle and lower socio economic strata. Study found that 5(10%) patients had attempted suicide and 14(28%) had suicidal ideation; all attempters also reported ideation. Most attempters resorted to hanging as a method of attempting suicide. 4 suicidal attempts were found in patients with bipolar depression and 1 attempt in bipolar mania. Males were over represented within the sample and 80% were within age group 21-40.All attempts occurred in those with a previous history of bipolar episode. On comparing the people who attempted suicide with those who had suicidal ideation there was a significant difference ($p<.oo5$).

## DISCUSSION

Our study was a retrospective chart review which looked at the charts maintained during a specified period of time (June 2012- December 2012).Majority of the males who attempted suicide had a past history of bipolar affective disorder. The suicidal ideation and attempts were mostly in depressives. The majority of our sample was educated and married. The suicidal ideation group and attempter group differed significantly on doing the chi square test. In our sample the commonest method of attempting suicide was by hanging.

Over their lifetime, 25-30% of psychiatric patients with bipolar disorders have either suicidal ideation or ideation plus suicide attempts [8].In a large naturalistic study Goodwin [10] found a tenfold increase of suicide in this group in contrast to the general population. Depression and hopelessness, co morbidity, and preceding suicidal behavior are key indicators of risk [11].Male gender, bipolarity, 20-30 years age group were found to be high risk factors in the above study and similar results have been shown by our study. We found that all patients who attempted suicide were males belonging to lower middle socioeconomic status within age group of 20-30.All of them had a previous episode of bipolar disorder. Mixed states and agitated depression are risk factors for suicide attempts, our study however did not look at the mixed state but the suicide attempts during manic states were less, this observation has been reported in multiple studies [8].Bipolarity as a suicidal risk factor decreases markedly if optimal treatment and follow up are a part of treatment, in a retrospective study on a group of veterans it was shown that a discontinuation of treatment served an eighteen fold increase in the risk of completed suicide [12].

**Table 1.** Age, gender, marital, educational, & socioeconomic status distribution of the study sample.

| | Number/Frequency | % | Suicidal attempt % |
|---|---|---|---|
| **Age group** | | | |
| 1-20 | 7 | 14 | 20 |
| 21-40 | 32 | 64 | 80 |
| 41-60 | 8 | 16 | 0 |
| 60 Above | 3 | 6 | 0 |
| Total | 50 | 100 | 100 |
| **Gender** | | | |
| Male | 34 | 68 | 100 |
| Female | 16 | 32 | 0 |
| Total | 50 | 100 | 100 |
| **Marital status** | | | |
| Married | 35 | 70 | 80 |
| Unmarried | 15 | 30 | 20 |
| Divorced | 0 | 0 | 0 |
| Total | 50 | 100 | 100 |
| **Educational status** | | | |
| Illiterate | 8 | 16 | 0 |
| High school | 24 | 48 | 80 |
| Graduation | 18 | 36 | 20 |
| Total | 50 | 100 | 100 |
| **Socio- economic status** | | | |
| Middle | 15 | 30 | 40 |
| Lower middle | 34 | 68 | 40 |
| Lower | 1 | 2 | 20 |
| Total | 50 | 100 | 100 |

Our study found that suicidal ideation was present in all those who attempted suicide, on the face of it, it appears an obvious chain of events but similar results have been reported by Tsai et.al. [13]. The same study also found the presence of a previous episode as a significant risk factor, like we also found . This study also found that there is higher rate of suicide in those with lesser education and those belonging to middle and lower middle socioeconomic status. This finding is echoed by our study, although our sample was educated but majority were up to class $12^{th}$.Majority of attempts occurred in bipolar depression as we also found [13].

## CONCLUSION

Although our study is a retrospective analysis, hence it is liable to have biases in terms of diagnosis, tabulation of data and other confounding data. Our study gives important implications in terms of the assessment and emphasis on risk factors .The immediate implication of our study is the importance and need for proper assessment, follow up and psycho education of the patients suffering from bipolar disorder in order to reduce a significant morbidity of suicide [14]. Timely follow up and proper drug compliance are major protective factors and these can be achieved by a good psycho education and communication. Compliance of medication has been a significant protective factor in terms of suicidal intent [10].Our study is a retrospective study. Cases were included from patient's charts which were maintained, hence observer bias cannot be ruled out. The absence of patients for interview is a major limiting factor. Our study had a small sample size therefore extrapolation of results is difficult. Future studies can attempt to find out chances of suicidal attempt in bipolar disorder using a risk scoring scale which includes age of onset, nature of current episode, previous bipolar episodes, adherence to treatment, life stressor, and previous suicidal attempts. Moreover prospective studies would be helpful.

**Table 2.** Suicidal ideation & attempt in the study sample

| Variable | Frequency | Percentage |
|---|---|---|
| Suicidal ideation | | |
| Yes | 13 | 26 |
| No | 37 | 74 |
| Total | 50 | 100 |
| Suicidal attempt | | |
| Yes | 5 | 10 |
| No | 45 | 90 |
| Total | 50 | 100 |

| Suicidal attempt | Suicidal ideation | | Total |
|---|---|---|---|
| | Yes | No | |
| No | 9 | 36 | 45 |
| Yes | 5 | 0 | 5 |
| Total | 14 | 36 | 50 |

**Table 3.** Chi-square comparison in the ideators Vs attempters

| | Mean | Standard deviation | P value | Chi square |
|---|---|---|---|---|
| With suicidal ideation | 1.74 | .443 | .009 | 12.375 |
| With suicidal attempt | .08 | .274 | .000 | |

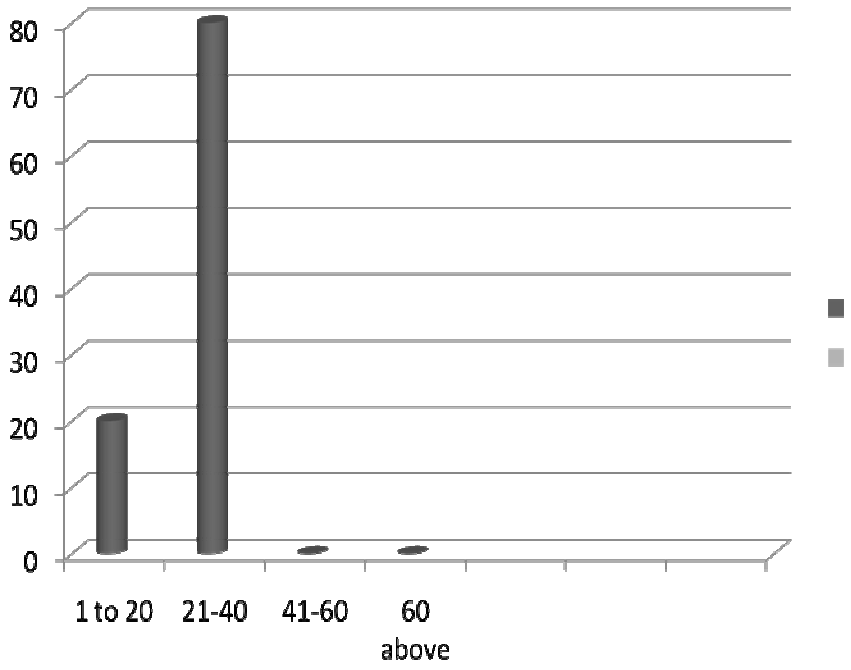


**Fig 1.** Age wise distribution of suicide attempts

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