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SOCIODEMOGRAPHIC AND CLINICAL VARIABLES IN SUICIDAL AND NON-SUICIDAL BIPOLAR PATIENTS

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ABSTRACT

Introduction: Most patients with bipolar disorder also exhibit suicidal behaviour. Early onset of illness and male preponderance have been noted in Indian population. There was no recent literature with regard to socio-demographic and clinical variables among suicidal behaviour in Indian population except a few earlier ones. This study was undertaken to find out the relationship of socio-demographic and clinical variables with suicidal behaviour in patients with bipolar disorder.

Method: 60 bipolar disorder patients in remission coming to the Central Institute of Psychiatry diagnosed as per DSM IV-TR (American Psychiatric Association, 2000) criteria, 30 with suicidal ideation and 30 without suicidal ideation were taken in the study. Their sociodemographic and clinical data were collected.

Results: The mean age of onset of the illness in the suicidal group (19.10±5.27 years) was significantly less than the mean age of onset of the illness in the non-suicidal group (23.33±7.56 years). Females were found to have higher BSI scores (mean = 8.20±8.88) than males (mean = 3.40±2.01). Most of the patients had a history of prior hospitalization and most of them had a manic episode as the most recent episode. Females were found to have higher BSI scores (mean = 8.20±8.88) than males (mean = 3.40±2.01). Positive history of prior hospitalization (mean=4.29±4.30) was associated with lower BSI scores as compared to higher scores of that without a positive history (mean=11.33±12.74).

Conclusions: Suicidal patients had earlier age of onset of illness than non suicidal patients. Females were found to have higher suicidal ideation than males. Hospitalization can reduce the suicidal ideation in patients.

Key words: Bipolar disorder, suicidal behavior, hospitalization.

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INTRODUCTION

The 1-year prevalence of bipolar disorder ranges between values of 0.01 and 1.7%. Bipolar disorders consist of depressive episodes and/or at least one hypomanic, manic, or mixed episode. Around 80% of patients with bipolar disorder exhibit suicidal behaviour.[1] Further, depressive and mixed phases have been found to be associated with suicidal behaviour.[2]One Indian study found that age of onset among bipolar illness was earlier (15-40yrs) in 91.2% of the cases. 70.2% of their bipolar patients were males and 29.8% were females.[3] Another study on psychiatric illness in patients with suicide attempts in India found that 78% of the subjects were in the age group of 15 to 34 years. Vast majority of their patients were from urban area. Hindus constituted 3/4th and Muslims slightly more than l/5th of the sample. Majority of their subjects (62%) was unmarried, about l/3rd being

married. 18% of the subjects had education up to primary class and 36% had educational status of intermediate or graduate level. 16% were unemployed while 37% were skilled workers, businessmen, office workers or agriculturists, and labourers.[4] Apart from these few studies we could not find other literature with regard to socio-demographic and clinical variables among suicidal behaviour in in Indian population. Therefore, the current study was undertaken to study the relationship of socio-demographic variables with suicidal behaviour and to study the relationship of clinical variables with suicidal behavior.

MATERIAL AND METHODS

The study was a cross-sectional comparative hospital based study. It was conducted for two years between 2008 and 2010. Institutional Ethics Committee approval was taken and only those subjects who gave written informed consent were recruited for the study by the purposive sampling technique. The study was conducted at the Central Institute of Psychiatry, Ranchi. It is a tertiary referral centre having a wide catchments area with bed strength of 673, and a postgraduate teaching hospital, which imparts training in psychiatry, clinical psychology, psychiatric social work and psychiatric nursing. The study sample consisted of 60 bipolar disorder patients diagnosed as per DSM IV-TR (American Psychiatric Association, 2000) criteria, 30 with suicidal ideation and 30 without suicidal ideation.

Inclusion criteria for group of bipolar disorder with suicidal ideation

- Diagnosis of bipolar disorder according to DSM IV-TR.
- Patients with suicidal ideation (either in the present or past episodes) as assessed by Beck's scale for suicidal ideation.
- Patients aged between 18 and 50 years
- Bipolar disorders with duration of illness at-least 5 years.
- Patients giving written informed consent.

Inclusion criteria for group of bipolar disorder without suicidal ideation

- Diagnosis of bipolar disorder according to DSM IV-TR.
- Patients without suicidal ideation (either in the present or past episodes) as assessed by Beck's scale for suicidal ideation.
- Patients aged between 18 and 50 years.
- Bipolar disorders with duration of illness at-least 5 years.
- Patients giving written informed consent.

Exclusion criteria for both the groups

- Comorbid psychiatric disorders other than anxiety disorders.
- Comorbid neurological illness and significant head injury.
- Comorbid substance dependence except nicotine and caffeine dependence.
- Major medical disorders including diabetes mellitus, hypertension, bronchial asthma and ischemic heart disease.
- Patients not willing to give consent.

Tools

1. Socio-demographic and clinical data sheet.
2. Suicidal Ideation .[5]
3. Hamilton Rating Scale for Depression.[6]
4. Young Mania Rating Scale.[7]
5. The Mini International Neuropsychiatric Interview. English Version 5.0.0 DSM-IV.[8]

Procedure for data collection

Patients coming to the Central Institute of Psychiatry were selected according to above mentioned inclusion and exclusion criteria. Mini International Neuro-psychiatric Interview was used to rule out comorbid conditions other than anxiety. The patients were assessed on Young Mania Rating Scale and Hamilton Rating Scale for Depression for the severity of mania and depression. They were also assessed on suicidal ideation scale for the present episode as well as past. Based on the score of suicidal ideation scale the patients were further divided into suicidal ideation group and non suicidal ideation group (patients responding positively in even one of the first five screening items or to the last two items were taken as belonging to the suicidal ideation group) during the period of remission that is when the score is ≤ 4 on Young Mania Rating Scale and ≤ 7 on Hamilton Rating Scale for Depression. The data was analysed using SPSS version 16.0 for Windows.

RESULTS

Table 1:Comparison of Socio-demographic and Clinical variables (Continuous variables) between Suicidal and Non-suicidal bipolar patients

Variable	Suicidal (N=30) Mean ± SD	Non-suicidal (N=30) Mean ± SD	t	df	P value
Age	29.63 ±8.07	33.06 ±7.76	-1.68	58	0.098
Education (in years)	8.93 ±4.48	8.73 ±4.93	0.16	58	0.870
Duration of illness (in years)	10.53 ±5.68	10.76 ±5.31	-0.16	58	0.870
Age of onset of illness	19.10 ±5.27	23.33 ±7.59	-2.52	58	0.015*

*p < 0.05, **p < 0.01 & ***p < 0.001 (2 tailed).

Table 1 shows the comparison of age, education, duration of illness and age of onset of illness between Suicidal and Non-suicidal bipolar patients. No statistical significance could be observed with age, education and duration of illness. It was observed that mean age of the suicidal group was 29.63±8.07 years and of the non-suicidal group was 33.06±7.76 years. The mean of education in years and the mean duration of illness in suicidal and non-suicidal groups were similar. The mean age of onset of the illness in the suicidal group (19.10±5.27 years) was significantly less than the mean age of onset of the illness in the non-suicidal group (23.33±7.56 years).

Table 2 shows the comparison of sex, background, occupation, family type, income, marital status, religion, family history of psychiatric illness, prior hospitalization and diagnosis between Suicidal and Non-suicidal bipolar patients. No statistical significance could be observed in sex, background, occupation, family type, income, marital status, religion, family history of psychiatric illness, prior hospitalization and diagnosis. It was observed that in both the groups males were in majority, most of the participants were from rural background, were from a nuclear family type, with a monthly income of less than 5000 rupees per month and were from Hindu religion. It was observed that most of them had a history of prior hospitalization and most of them had a manic episode as the most recent episode.

Table 2:Comparison of Socio-demographic and Clinical variables (Categorical variables) between Suicidal and Non-suicidal bipolar patients

Variable		Suicidal N=30 n (%)	Non-suicidal N=30 n (%)	Chi-square	df	P value
Sex	Male	20 (66.7)	20 (66.7)	0.00	1	1.000
	Female	10 (33.3)	10 (33.3)			
Place of residence	Rural	21 (70.0)	24 (80)	0.80	1	0.371
	Urban[1]	9 (30.0)	6 (20.0)			
Occupation	Employed	17 (56.7)	16 (53.5)	0.07	1	0.795
	Unemployed	13 (43.3)	14 (46.7)			
Family type	Nuclear	22 (73.3)	21 (70.0)	0.08	1	0.774
	Joint	8 (26.7)	9 (30.0)			
Income	<5000	20 (66.7)	22 (73.3)	0.32	1	0.573
	>5000	10 (33.3)	8 (26.7)			
Marital status	Single	14 (46.7)	8 (26.7)	2.58	1	0.108
	Married	16 (53.3)	22 (73.3)			
Religion	Hindu	26 (86.7)	23 (76.7)	1.00	1	0.317
	Others	4 (13.3)	7 (23.3)			
Family history of psychiatric illness	Absent	17 (56.7)	21 (70.0)	1.15	1	0.284
	Present	13 (43.3)	9 (30.0)			
Prior hospitalization	Absent	3 (10.0)	3 (10.0)	0.00	1	1.000
	Present	27 (90.0)	27 (90.0)			
Diagnosis	BAD Mania[a]	23 (76.7)	23 (76.7)	0.00	1	1.000
	BAD Depression[b]	7 (23.3)	7 (23.3)			

*p< 0.05, **p < 0.01 & ***p < 0.001 (2 tailed); [1] patients belonging to the suburban group were also included in the urban background; [a] bipolar 1 disorder, most recent episode manic currently in remission, [b] bipolar 1 disorder, most recent episode depressed currently in remission.

Table 3:Comparison of various Socio-demographic and clinical variables with BSI scores in Suicidal group.

Variable		BSI Score[@] Mean ± SD	t	df	p
Sex	Male (N=20)	3.40±2.01	-2.34	28	0.027*
	Female (N=10)	8.20±8.88			
Family type	Nuclear (N=22)	4.36±5.12	-1.02	28	0.318
	Joint (N=8)	6.75±7.13			
Income	<5000 (N=20)	5.50±6.74	0.67	28	0.506
	>5000 (N=10)	4.00±2.62			
Marital status	Single (N=14)	4.57±5.34	-0.38	28	0.707
	Married (N=16)	5.37±6.13			
Religion	Hindu (N=26)	4.69±5.90	-0.75	28	0.460
	Others (N=4)	7.00±4.08			
Family history	Absent (N=17)	5.24±5.23	0.25	28	0.801
	Present (N=13)	4.69±6.46			
Prior hospitalization	Absent (N=3)	11.33±12.74	2.15	28	0.040*
	Present (N=27)	4.29±4.30			
Diagnosis	BAD Maniaa (N=23)	4.48±4.66	-0.91	28	0.372
	BAD Depressionb (N=7)	6.71±8.52			

*p < 0.05, **p < 0.01 & ***p < 0.001 (2 tailed); [a]bipolar disorder, most recent episode manic, [b]bipolar disorder, most recent episode depressed. [@]BSI – Scores obtained on Beck's scale for suicidal ideation.

Table 3 shows the comparison of BSI scores in respect to Sex, Family type, Income, Marital status, Religion, Family history, Prior hospitalization and diagnosis in the Suicidal group. Statistically significance was found with respect to sex and prior hospitalization. It was observed that females were found to have higher BSI scores

(mean = 8.20±8.88) than males (mean = 3.40±2.01). It was observed that positive history of prior hospitalization (mean=4.29±4.30) was associated with lower BSI scores as compared to higher scores of that without a positive history (mean=11.33±12.74).

DISCUSSION

Most of the patients in present study belonged to the young age group composed of 40 males and 20 females which comparable to other Indian studies.[3] Majority patients from rural background. Most patients in the study were Hindus (86.7% in the suicidal group and 76.7% in the non-suicidal group) similar to other Indian sample characteristic.[4] Hinduism being most widely followed religion in India can explain this.Studies have shown that females appear to be at higher risk than males for suicide attempts.[2,9] In our study also, females in the suicidal group had significantly higher scores on the Beck's scale for suicidal ideation as compared to men. No difference was found in the education, employment and socioeconomic status between the suicidal and non suicidal groups. There was no difference in the family types and marital status between the suicidal and non suicidal groups which is in agreement with other studies.[10,11,12]

No difference was found in the family history of psychiatric illness between suicidal and non suicidal groups contradicting findings of earlier studies which predict suicidal behavior in those with family history of psychiatric illness.[2,11] Our sample population did not have rapid cyclers and included those have been either inpatients or outpatients in the past which was not the case in the other studiesThe suicidal and non suicidal groups did not differ as regards past hospitalization as in other studies.[13] A study found that patients with Depressive Polarity had a higher mean number of suicide attempts.[14] In our study sample with subjects in remission, no difference was found in the suicidal ideation scores between the participants who had manic or depressive episode as the most recent episode.We found no difference in the duration of illness between the suicidal and non-suicidal patients in agreement to a similar study.[15] We found that the suicidal group had a significantly earlier age of onset of illness than the non suicidal group as found in other previous studies in bipolar I disorders.[11,12,16]

CONCLUSIONS

The important features and findings of this study were as follows:-

1.The age and sex in the current study were matched.

2.There were no significant difference in terms of domicile, occupation, marital status, family type, religion, education, socio-economic status, family psychiatric history, prior hospitalization, duration of illness and most recent episode of illness.

3.The age of onset of illness in the suicidal group was significantly less than that of group without suicidal ideation.

4.Females were noted to have significantly higher scores on the suicidal ideation scale than the males.

5.Those without a prior history of hospitalization had higher scores on the suicidal ideation scale than those with a prior history.

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