

Sociodemographic Correlates of Unipolar and Bipolar Depression in North-East India: A Cross-sectional Study

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ABSTRACT

Introduction: Early diagnosis and management of depression is important for better therapeutic outcome. Strategies for distinguishing between unipolar and bipolar depression are yet to be defined, resulting improper management. This study aims at comparing the socio-demographic and other variables between patients with unipolar and bipolar depression, along with assessment of severity of depression. **Materials and Methods:** This cross sectional study was conducted in a tertiary care psychiatry hospital in North-East India. The study included total of 330 subjects selected through purposive sampling technique from outpatient department after obtaining due informed consent. Mini-International Neuropsychiatric Interview (M.I.N.I.) version 6.0 and Beck Depression Inventory (BDI) were applied. Statistical Package for Social Sciences (SPSS) version 16.0 was applied for analysis. **Results:** Bipolar group had onset of illness at significantly younger age with more chronicity (32.85 ± 11.084). Mean BDI score was significantly higher in the unipolar depressive group. **Conclusion:** Careful approach in eliciting symptom severity and associated socio demographic profiles in depressed patients may be helpful in early diagnosis of bipolar depression.

Key words: Beck depression inventory, bipolar, depression, unipolar

INTRODUCTION

Depression is a common mental disorder, with an estimated global burden of 350 million.^[1] Lifetime prevalence rates range from approximately 3% to 16.9%, with most countries falling somewhere between 8% and 12%.^[2]

Depressive disorder is diagnosed when the patient suffers from depressed mood, loss of interest and enjoyment, and reduced energy leading to increased fatigability and diminished activity for at least 2 weeks

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along with other common symptoms such as reduced concentration and attention, reduced self-esteem and self-confidence, ideas of guilt and unworthiness, blank and pessimistic views of future, ideas or acts of self-harm or suicide, disturbed sleep, and diminished appetite.

If there is a history of at least one hypomanic, manic, or mixed affective episode in the past, then the depressed person is diagnosed to have bipolar depression. Psychotic symptoms may emerge in both types of depression along with relapse and remission.^[3,4]

Unipolar depressive disorders were ranked fourth in 2004 and will rise to the first place by 2030 in terms of the global burden of all diseases.^[1] Bipolar disorder affected an estimated 29.5 million individuals worldwide in 2004, according to the World Health Organization.^[5] If the current trends for demographic and epidemiologic transition continue, it is estimated that by the year 2020, the burden of depression will increase to 5.7% of the total burden of disease and it would be the second leading cause of disability-adjusted life years.^[6,7]

The distinction between unipolar and bipolar depression remains a challenging clinical problem, particularly when bipolar individuals present in the depressive phase and they may easily be mistaken for unipolar depression.^[8-10] There are differences in the optimal management of these conditions. Patients with bipolar depression who are assumed to have unipolar depression will receive inappropriate therapy that can increase the risk of manic switch or cycle acceleration.^[11,12] Measures to clinically recognize or at least to suspect the kind of disorder in the early stage can greatly improve diagnosis and management of such disorders, with more appropriate treatment selection which will help in long-term care of these groups of people.

We are yet to know the details of the biological processes involved in these clinical conditions and the different factors associated. This study was undertaken with the objective of comparing the sociodemographic variables associated with unipolar and bipolar depression groups. It also aimed at assessing the degree of depression among the unipolar and bipolar groups.

MATERIALS AND METHODS

This study is a cross-sectional study conducted in a Tertiary Care Psychiatry Hospital in North-East India. Patients with unipolar and bipolar depression from outpatient department fulfilling the inclusion criteria were selected by purposive sampling. A total of

330 depression patients, 164 unipolar and 166 bipolar cases, were included in the study.

Inclusion criteria

Patients of the age group of 18–65 years, irrespective of their genders, diagnosed with depression both unipolar and bipolar as per the International Statistical Classification of Diseases and Related Health Problem Tenth Revision (ICD-10), were included. Patients without medication for at least 1 month before the onset of the current episode who gave written informed consent were considered.

Exclusion criteria

Patients with comorbid medical illness or any other psychiatric disorder including substance dependence and personality disorders were excluded from the study.

Tools

A semi-structured pro forma was used for the assessment of the sociodemographic and clinical variables of the patients.

ICD-10 was used. Mini-International Neuropsychiatric Interview Version 6.0 was used to validate the clinical diagnosis.

The severity of depression among the depressive patients was assessed by 21-item Beck Depression Inventory (BDI).

Statistical analysis

Results were described using descriptive and analytical statistics with the help of SPSS version 23.0 (SPSS South Asia Pvt Ltd., Bengaluru, Karnataka, India).

RESULTS

The sociodemographic data, BDI score, and the severity of the depression have been summarized in Tables 1 and 2. Both groups did not differ significantly age-wise at the time of assessment.

Of total 330 subjects, 197 (59.7%) were male. In the whole sample, there was over-representation of male as depressed patients. 59.4% of the male and 36.8% of the females are found to have bipolar depression and this difference was statistically significant. Thus, male-depressed persons are significantly more likely to get bipolar depression.

The mean age at onset of unipolar depression was 36.83 ± 11.57 years which is significantly higher than the mean age at onset of bipolar depression [Table 1]. Of 330 patients, 192 (58.2%) were in the age group of

Table 1: Sociodemographic and illness profile of patients with unipolar and bipolar depression (for continuous variables)

Variables	Mean±SD/mean ranking (median)		Test done	Test statistics	Significant value (P)
	Unipolar	Bipolar			
Age (years)	38.87±11.34	36.78±10.60	t-test	t=1.734	0.084
Age at onset (years)	36.83±11.57	32.85±11.08	t-test	t=3.191	0.002
Duration of illness (months)	134.85 (11.5)	195.78 (36)	Mann-Whitney U-test	U=8585.000	0.000
BDI score	24.57±6.52	22.37±4.40	t-test	t=3.594	0.000

SD – Standard deviation; BDI – Beck depression inventory

Table 2: Sociodemographic profile of patients with unipolar and bipolar depression (for discrete variables)

Variable	Character of diagnosis		Frequency (%)	
	Unipolar	Bipolar	χ^2	P
	Variable			
Gender				
Male	80 (40.6)	117 (59.4)	16.148	0.000
Female	84 (63.2)	49 (36.8)		
Age group (years)				
≤20	9 (60.0)	6 (40.0)	7.694	0.021
21-40	83 (43.2)	109 (56.8)		
>40	72 (58.5)	51 (51.5)		
Marital status				
Married	129 (52.0)	119 (48.0)	2.147	0.143
Single	35 (42.7)	47 (57.3)		
Employment status				
Employed	60 (42.6)	81 (57.4)	5.026	0.025
Unemployed	104 (55.0)	85 (45.0)		
Economic status				
BPL	44 (49.4)	45 (50.6)	0.003	0.954
APL	120 (49.8)	121 (50.2)		
Religion				
Hindu	85 (42.5)	115 (57.5)	11.8	0.003
Islam	74 (59.7)	50 (40.3)		
Christian	5 (83.3)	1 (16.7)		
Education level				
Above matriculation	66 (50.4)	65 (49.6)	3.357	0.187
Below matriculation	61 (44.9)	75 (55.1)		
Illiterate	37 (58.7)	26 (41.3)		
Family type				
Nuclear	113 (48.9)	118 (51.1)	0.187	0.665
Joint/extended	51 (51.5)	48 (48.5)		
Locality				
Rural	133 (47.8)	145 (52.2)	2.429	0.119
Urban	31 (59.6)	21 (40.4)		

BPL – Below poverty line; APL – Above poverty line

21–40 years and 56.8% of them had bipolar depression. Only 15 (4.5%) of the total sample were younger than 20 years of age and had depression both in unipolar and bipolar [Table 2]. Thus, the risk of depression rises with age peaking in the middle age [Figure 1]. Table 3 shows that the age at onset of illness after 40 years is significantly associated with unipolar depression.

Marital status, socioeconomic status, education, family type, and locality of the patient did not

have any significant relationship with the type of depression [Table 2]. Interestingly, Hindu depressed patients were likely to have bipolar depression as compared to their Muslim and Christian counterparts. Of 330 patients, 141 were employed and they had more likelihood of having bipolar depression (57.4%).

Figure 2 shows that the duration of illness in both types of depression follows a similar curve with majority of them having <48 months of illness. However, the distribution is seen to be more uniformly distributed among the bipolar depression group [Figure 3]. Unipolar depression had a relatively significant lesser duration of total illness as compared to that of bipolar illness. Most patients in both groups had a moderate level of depression. The mean BDI score in unipolar depression is 24.57 ± 6.52 , which is significantly higher than that of the bipolar depression group [Table 1].

DISCUSSION

The average age of the unipolar group at the time of interview was found to be higher nonsignificantly compared to the bipolar group which is consistent with the previous studies.^[13-16]

Like other studies,^[15-18] the mean age of illness onset and the illness onset age group is significantly earlier among the bipolar patients than among those with unipolar depression, with the median of the duration of illness more in bipolar group compared to unipolar.^[13,16-18] Patients with unipolar depression had a shorter duration of illness. Bipolar group may have earlier onset with a more chronic course.

Although the prevalence of unipolar depression is more in female but in bipolar depression, male are found to be equally exposed. We have found male are equally exposed in unipolar group which is contrary to many other studies which were population based.^[16,19-22] As the sample comprised both unipolar and bipolar depression cases and also the sampling was done on purposive method from a psychiatric hospital, we may explain over-representation of males in the sample.

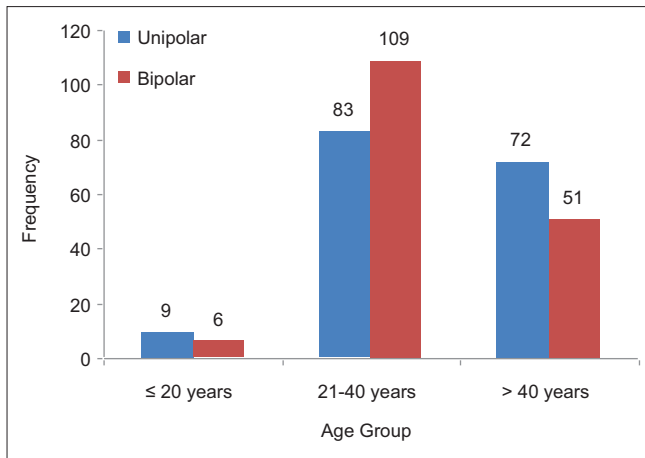


Figure 1: Frequency distribution based on age group

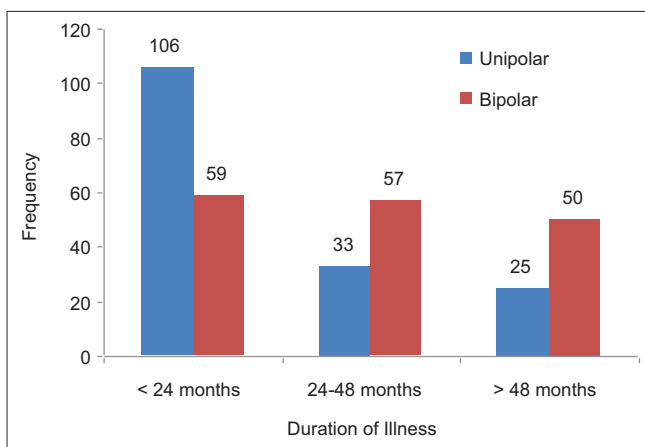


Figure 2: Frequency distribution based on illness duration

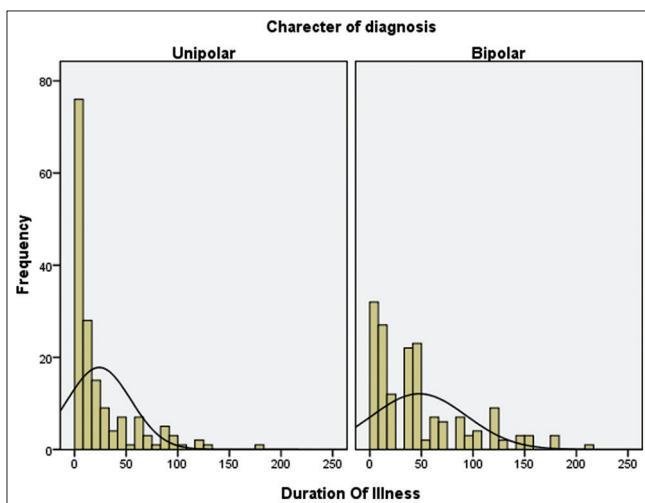


Figure 3: Normality curve of illness duration in unipolar and bipolar groups

Married group comprised the majority in both unipolar and bipolar groups, similar to the findings of Berlin *et al.*, 2004.^[14] In contrast to their result, we found married patients were more prone to unipolar depression

Table 3: Illness profile of patients with unipolar and bipolar depression (for discrete variables)

Variable	Character of diagnosis		Frequency (%)	
	Unipolar	Bipolar	χ^2	P
Age group at onset of illness (years)				
≤20	15 (41.7)	21 (58.3)	11.189	0.004
21-40	87 (44.2)	110 (55.8)		
>40	62 (63.9)	35 (36.1)		
Duration of illness (months)				
<24	106 (64.2)	59 (35.8)	28.110	0.000
24-48	33 (36.7)	57 (63.3)		
>48	25 (33.3)	50 (66.7)		
Family history				
Present	28 (60.9)	18 (39.1)	2.669	0.102
Absent	136 (47.9)	148 (52.1)		
Class of severity (BDI score)				
Mild	10 (52.6)	9 (47.4)	10.394	0.034
Borderline	25 (39.1)	39 (60.9)		
Moderate	106 (49.8)	107 (50.2)		
Severe	17 (60.7)	11 (39.3)		
Extreme	6 (100.0)	0 (0.0)		

BDI – Beck depression inventory

compared to bipolar depression, similar to the study of Motovsky and Pecenek, 2013.^[15] Employment status of the patient and depression were found to be strongly associated, most cases being unemployed, comparatively more among unipolar group. This is in consistent with the findings from the study conducted in University Hospital, Trencin, Slovakia.^[15]

Economic status of the patients did not show any marked difference between unipolar and bipolar groups. However, most of them represented the economically healthy class, in contradiction to other studies where socially disadvantaged people are seen more prone to depression, either unipolar or bipolar.^[20,23-26] Our finding may be explained on the basis of site of the study and the relative ability of the patients to bear travel expenses.

Hindu community comprised the majority in both unipolar and bipolar groups, with significantly more subjects in bipolar group. A deep look into religio-ethno-cultural phenomenological aspects of depression may give interesting finding.

There is no significant association observed between education level of the subjects and the character of diagnosis; however, the majority of the unipolar cases are found above matric education, but bipolar groups are found to have lower level of education as seen in other studies.^[14,20,22] This may be due to the fact of preferences to services by the highly educated group.

Family type of the patients did not show any significant difference between unipolar and bipolar groups; however, majority in both were from nuclear type of family. This could be explained by the fact that emergence of nuclear family from the breakdown of joint family resulting in reduced family support.

The rural population comprised the majority as the study is based on the setting with rural majority, with no significant difference between unipolar and bipolar groups.

The severity of depression is more in unipolar group compared to bipolar group, which is in concordance with the findings of Katz *et al.*, 1982,^[28] Mitchell *et al.*, 2004^[26] and Forty *et al.*, 2008.^[13] Majority of the cases were in the moderate class of severity, with significantly higher mean BDI scores in unipolar group, as seen in the study of Kessler *et al.*, 2005.^[27]

Most of the patients had no family history of illness earlier, with nonsignificant association of family history and character of diagnosis. This finding suggests that either these ailments are associated with other nonfamilial factors or most of the cases in the earlier days might be subclinical that went unnoticed or undiagnosed. Again, recall bias could also be an important factor.

Our study is an effort, to find out the differences among the unipolar and bipolar groups of patients on the basis of certain sociodemographic variables along with clinical findings. This is believed to facilitate the proper management of the two conditions.

CONCLUSION

Male gender, employment status, Hindu religion, onset of illness before 40 years, and a long chronic course of illness are the risk factors associated with bipolar depression. As this study is a hospital-based study done using purposive sampling technique, generalizability of the findings should be done with caution.

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Conflicts of interest

There are no conflicts of interest.

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