Socio-demographic and Clinical Characteristics of Patients with Bipolar Affective Disorder: A Cross-Sectional Study from Southern Rajasthan

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Abstract

Background: Bipolar affective disorder (BPAD) is a chronic, recurrent psychiatric illness associated with significant disability and psychosocial burden. Knowledge of the socio-demographic and clinical characteristics of affected individuals is essential for understanding disease patterns and improving patient care, particularly in resource-limited settings.

Objectives: To describe the socio-demographic and clinical characteristics of patients with bipolar affective disorder attending a tertiary care hospital in Southern Rajasthan.

Methods: A hospital-based cross-sectional study was conducted in the Department of Psychiatry, R.N.T. Medical College and M.B. Government Hospital, Udaipur, Rajasthan, from August 2020 to July 2021. A total of 180 patients aged 15–60 years diagnosed with bipolar affective disorder according to ICD-10 criteria were included. Sociodemographic and clinical information was collected using a predesigned semi-structured proforma. Data were analysed using SPSS version 17.0. Descriptive statistics were used to summarize study variables, and the Chi-square test was applied where appropriate. A p-value <0.05 was considered statistically significant.

Results: Among the 180 participants, 61.1% were males and 39.4% belonged to the 31–45-year age group. Most participants were Hindus (97.8%), from rural areas (86.1%), married (80.0%), and belonged to nuclear families (79.4%). Nearly four-fifths of the patients belonged to the lower middle and upper lower socioeconomic classes. Illiteracy was observed in 31.1% of participants, while 38.9% were unemployed or homemakers and 37.8% were farmers. Family history of psychiatric illness was present in 39.4% of patients. The duration of illness was less than 10 years in 54.4% of participants. Manic episodes constituted the predominant current presentation (86.7%). A statistically significant association was observed between sex and the polarity of the current episode (p=0.036), with manic episodes being more frequent among males and depressive episodes relatively more common among females.

Conclusions: Patients with bipolar affective disorder attending this tertiary care centre were predominantly middle-aged rural males from lower socioeconomic backgrounds, with manic episodes representing the most common clinical presentation. These findings provide important epidemiological information that may assist clinicians and policymakers in planning targeted mental health services and improving the delivery of psychiatric care in similar settings.

Keywords: Bipolar affective disorder; Socio-demographic characteristics; Clinical profile; Mania; Cross-sectional study; Southern Rajasthan.

Introduction

Bipolar affective disorder (BPAD) is a chronic, recurrent mood disorder characterized by alternating episodes of mania, hypomania, depression, or mixed affective states, interspersed with periods of remission. It is associated with substantial functional impairment, increased morbidity and mortality, and significant socioeconomic burden. According to the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*, bipolar disorders encompass a spectrum of illnesses that significantly affect emotional regulation, cognition, interpersonal relationships, and occupational functioning.[1]

Bipolar disorder is recognized as a major public health concern worldwide. The World Mental Health Survey reported a lifetime prevalence of bipolar spectrum disorders ranging from 0.6% to 2.4% across different countries, although the prevalence varies depending on diagnostic criteria and study populations.[2] Data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) further demonstrated that bipolar disorder is associated with high rates of psychiatric comorbidity, substance use disorders, and considerable functional disability.[3] The Global Burden of Disease Study 2013 identified bipolar disorder as one of the leading contributors to years lived with disability among mental illnesses, emphasizing its substantial impact on global health.[4]

In India, mental disorders contribute significantly to the overall disease burden. The India State-Level Disease Burden Initiative reported a considerable increase in the burden attributable to mental disorders between 1990 and 2017, with marked interstate variations in prevalence and healthcare access.[5] Despite advances in pharmacological and psychosocial interventions, individuals with bipolar disorder continue to experience increased rates of medical comorbidities, reduced quality of life, premature mortality, and suicide compared with the general population.[6,7] Psychiatric and physical comorbidities further complicate disease management and adversely affect long-term outcomes.[8]

Early recognition and timely diagnosis remain major challenges in the management of bipolar disorder. Several studies have demonstrated prolonged delays between symptom onset and initiation of appropriate treatment, often resulting in recurrent mood episodes, psychosocial deterioration, and poorer prognosis.[9–11] The National Institute for Health and Care Excellence (NICE) recommends comprehensive clinical assessment, accurate diagnosis, and long-term follow-up to optimize treatment outcomes and minimize recurrence.[12]

Evidence from the National Mental Health Survey of India highlights substantial treatment gaps in psychiatric disorders, including bipolar disorder, with many patients remaining undiagnosed or inadequately treated due to limited awareness, social stigma, and inadequate access to mental healthcare services.[13] Furthermore, robust statistical approaches have been advocated for the analysis of psychiatric epidemiological data to improve the validity and interpretation of research findings.[14]

The clinical presentation and sociodemographic characteristics of bipolar disorder vary considerably across populations because of differences in genetic background, cultural influences, socioeconomic conditions, healthcare accessibility, and environmental factors. Understanding these characteristics within specific geographical regions is important for planning mental health services, identifying vulnerable groups, and developing targeted preventive and therapeutic strategies. Information regarding the sociodemographic and clinical profile of patients with bipolar affective disorder from Southern Rajasthan remains limited.

The present study was therefore undertaken to describe the sociodemographic and clinical characteristics of patients with bipolar affective disorder attending a tertiary care teaching hospital in Southern Rajasthan. The findings are expected to provide region-specific epidemiological evidence that may assist clinicians, mental health professionals, and policymakers in improving early recognition, optimizing management strategies, and strengthening mental healthcare services for patients with bipolar affective disorder. Additionally, improved management of bipolar disorder has the potential to reduce disability, improve quality of life, and decrease the number of days lost from productive roles among affected individuals.[15]

Aim

To describe the sociodemographic and clinical characteristics of patients with bipolar affective disorder attending a tertiary care hospital in Southern Rajasthan.

Objectives

1. To describe the sociodemographic characteristics of patients with bipolar affective disorder, including age, sex, religion, residence, educational status, occupation, socioeconomic status, marital status, and family type.
2. To assess the clinical characteristics of patients with bipolar affective disorder, including family history of psychiatric illness, duration of illness, and current episode polarity.

Materials and methods

Study Design and Setting

This hospital-based cross-sectional study was conducted in the Department of Psychiatry, R.N.T. Medical College and M.B. Government Hospital, Udaipur, Rajasthan, India, over a period of one year from 1 August 2020 to 31 July 2021.

Study Population

The study included patients diagnosed with bipolar affective disorder attending the Psychiatry Outpatient Department (OPD) or admitted to the psychiatry inpatient ward during the study period.

Eligibility Criteria

Inclusion Criteria

- Patients aged 15–60 years.
- Diagnosis of bipolar affective disorder according to the International Classification of Diseases, 10th Revision (ICD-10) criteria.
- Patients willing to provide written informed consent.

Exclusion Criteria

- Patients younger than 15 years or older than 60 years.
- Patients who refused to participate.
- Patients with severe medical or surgical illness likely to interfere with clinical assessment.
- Patients with major neurological disorders.
- Patients with substance dependence.

Sample Size and Sampling Technique

A total of 180 consecutive eligible patients fulfilling the inclusion criteria were enrolled during the study period using consecutive sampling.

Data Collection

After obtaining written informed consent, data were collected using a predesigned semi-structured proforma. Sociodemographic variables recorded included age, sex, religion, residence, educational status, occupation, socioeconomic status (Modified Kuppuswamy Scale), marital status, type of family, and family history of psychiatric illness.

Clinical information included duration of illness, duration of treatment, current episode polarity (mania or depression), number of previous mood episodes, and duration of illness. Diagnoses were confirmed by consultant psychiatrists according to ICD-10 diagnostic criteria.

Study Variables

Sociodemographic Variables

- Age
- Sex
- Religion
- Residence
- Educational status
- Occupation
- Socioeconomic status (Modified Kuppuswamy Scale)
- Marital status
- Type of family
- Family history of psychiatric illness

Clinical Variables

- Duration of illness
- Current episode polarity
- Number of previous mood episodes
- Duration of treatment

Ethical Considerations

The study protocol was approved by the Institutional Ethics Committee and the Research Review Board of Rabindranath Tagore Medical College, Udaipur, Rajasthan. Written informed consent was obtained from all participants before enrolment. Confidentiality of participant information was maintained throughout the study.

Statistical Analysis

Data were entered into Microsoft Excel and analysed using SPSS version 17. Continuous variables were summarized as mean ± standard deviation or median (interquartile range), depending on data distribution. Categorical variables were expressed as frequencies and percentages. The Chi-square test or Fisher's exact test, wherever appropriate, was used to compare categorical variables. A two-tailed p-value <0.05 was considered statistically significant.

Results

A total of 180 patients diagnosed with bipolar affective disorder were included in the study.

Table 1. Socio-demographic characteristics of the study participants (N = 180)

Variable	Category	N	%
Sex	Male	110	61.1
	Female	70	38.9
Age group (years)	15–30	54	30.0
	31–45	71	39.4
	46–60	55	30.6
Religion	Hindu	176	97.8
	Muslim	4	2.2
Residence	Rural	155	86.1
	Urban	25	13.9

The majority of participants were males (61.1%). The largest proportion belonged to the 31–45-year age group (39.4%). Most patients were Hindus (97.8%) and resided in rural areas (86.1%).

Table 2. Educational status of participants

Education	n	%
Illiterate	56	31.1
Primary	31	17.2
Middle	31	17.2
High school	43	23.9
Intermediate/Diploma	4	2.2
Graduate/Postgraduate	15	8.3
Total	180	100.0

Illiteracy was observed in 31.1% of patients. Nearly 90% of participants had education up to the high-school level.

Table 3. Occupational status of participants

Occupation	n	%
Unemployed/Homemaker	70	38.9
Farmer	68	37.8
Semi-skilled/Unskilled worker	25	13.9
Professional	9	5.0
Student	8	4.4
Total	180	100.0

The majority of participants were unemployed/homemakers (38.9%) or farmers (37.8%).

Table 4. Socioeconomic status (Modified Kuppuswamy)

Socioeconomic status	n	%
Upper	1	0.6
Upper middle	28	15.6
Lower middle	71	39.4
Upper lower	74	41.1
Lower	6	3.3
Total	180	100.0

Most participants belonged to the upper lower (41.1%) and lower middle (39.4%) socioeconomic classes.

Table 5. Family characteristics

Variable	Category	n	%
Family type	Nuclear	143	79.4
	Joint	35	19.4
	Extended	2	1.1
Marital status	Married	144	80.0
	Single	31	17.2
	Separated	3	1.7
	Divorced	2	1.1

Most patients belonged to nuclear families (79.4%) and were married (80.0%).

Table 6. Clinical characteristics

Variable	Category	n	%
Family history of psychiatric illness	Present	71	39.4
	Absent	109	60.6
Duration of illness	<10 years	98	54.4
	≥10 years	82	45.6
Current episode	Mania	156	86.7
	Depression	24	13.3

Family history of psychiatric illness was present in 39.4% of patients. More than half (54.4%) had illness duration of less than 10 years. Manic episodes constituted the majority (86.7%) of current presentations.

Table 7. Sex-wise distribution of current episode

Sex	Mania n (%)	Depression n (%)	Total	P value
Male	100 (64.1)	10 (41.7)	110	0.036
Female	56 (35.9)	14 (58.3)	70	
Total	156	24	180	

A statistically significant association was observed between sex and the current episode (p=0.036). Manic episodes were more common among males, whereas depressive episodes were proportionately more frequent among females.

Summary

The study population predominantly consisted of middle-aged rural male patients. Most belonged to lower socioeconomic classes, had education up to high school or less, were married, and lived in nuclear families. More than half had illness duration of less than 10 years, and manic episodes represented the predominant clinical presentation.

Discussion

The present study describes the sociodemographic and clinical characteristics of patients with bipolar affective disorder attending a tertiary care teaching hospital in Southern Rajasthan. Bipolar affective disorder is a chronic psychiatric illness associated with recurrent mood episodes, substantial disability, and considerable socioeconomic burden worldwide. Despite advances in diagnosis and treatment, delayed recognition and inadequate access to mental

healthcare continue to influence disease outcomes, particularly in low- and middle-income countries.[1]

In the present study, males constituted 61.1% of the study population. Although epidemiological studies suggest that bipolar disorder affects males and females almost equally, hospital-based studies frequently report a higher proportion of male patients, which may reflect gender differences in healthcare utilization, cultural attitudes, and access to psychiatric services rather than true differences in disease occurrence.[2,3] In India, disparities in healthcare-seeking behaviour and mental health service utilization have been documented, with women often experiencing barriers to timely psychiatric consultation.[5]

The majority of participants belonged to the 31–45-year age group, representing the economically productive period of life. This observation is consistent with the established epidemiology of bipolar disorder, which typically begins during late adolescence or early adulthood but often remains underdiagnosed for several years.[2,9–11] Diagnostic delay remains an important public health concern, resulting in recurrent episodes, functional impairment, and increased healthcare utilization.[9]

Most patients in the present study were from rural areas and belonged to lower socioeconomic strata. Similar socioeconomic patterns have been described in national mental health surveys conducted in India, which demonstrate significant treatment gaps and unequal distribution of mental health services across rural populations.[5] Limited availability of specialist psychiatric services, poor mental health literacy, financial constraints, and stigma may contribute to delayed diagnosis and treatment among rural communities.[13]

Educational attainment among the study participants was generally low, with nearly one-third being illiterate and the majority having education up to the secondary-school level. Lower educational status may adversely influence illness awareness, treatment-seeking behaviour, medication adherence, and long-term psychosocial functioning. Socioeconomic disadvantage and lower educational achievement have been identified as important determinants of mental healthcare utilization and treatment outcomes in population-based studies.[6]

Most participants were married and belonged to nuclear families. Marriage does not appear to protect against bipolar disorder but may influence social support, caregiving, and treatment engagement. Family support plays an important role in long-term management because bipolar disorder affects interpersonal relationships, occupational functioning, and quality of life throughout the course of illness.[6,15]

Approximately two-fifths of patients had a positive family history of psychiatric illness, supporting the well-established genetic contribution to bipolar disorder. Family aggregation and heritability of bipolar disorder have been consistently demonstrated in previous research, emphasizing the interaction between genetic susceptibility and environmental influences in disease expression.[1–3]

More than half of the participants had illness duration of less than 10 years. Although the duration of illness varies considerably among individuals, several studies have highlighted that prolonged untreated illness is associated with poorer clinical outcomes, recurrent mood episodes, greater psychosocial disability, and reduced quality of life.[9–11] Early diagnosis and prompt initiation of evidence-based treatment therefore remain essential for improving long-term prognosis.

Mania represented the predominant current clinical presentation in the present study. This finding may reflect the greater likelihood of hospital attendance during manic episodes because of behavioural disturbances, impaired judgement, aggression, or reduced insight requiring urgent psychiatric intervention. Previous epidemiological studies have shown that bipolar disorder is characterized by recurrent episodes of both mania and depression, although the pattern of presentation varies across healthcare settings.

A statistically significant association was observed between sex and the polarity of the current episode, with manic episodes being more common among males and depressive episodes relatively more frequent among females. Sex-related differences in the clinical presentation of bipolar disorder have been reported previously and may reflect biological, hormonal, psychosocial, and healthcare-related factors influencing illness expression and treatment-seeking behaviour.[2,3]

The findings of this study should be interpreted in the context of certain limitations. The cross-sectional design precludes assessment of causal relationships, and the hospital-based nature of the study may limit generalizability to the wider community. Patients attending a tertiary referral centre are more likely to have severe illness or recurrent episodes, potentially introducing referral bias. Nevertheless, the study provides valuable regional data on the sociodemographic and clinical profile of bipolar affective disorder from Southern Rajasthan, where published evidence remains limited.

Overall, the present findings contribute to the growing evidence regarding the epidemiological and clinical characteristics of bipolar affective disorder in India. Strengthening early detection strategies, reducing diagnostic delay, improving access to specialist mental healthcare in rural settings, and addressing socioeconomic barriers may help improve long-term clinical outcomes and reduce the substantial burden associated with bipolar affective disorder.4,5,9–15

Conclusion

The present study demonstrates that patients with bipolar affective disorder attending a tertiary care hospital in Southern Rajasthan were predominantly middle-aged males from rural areas, with lower educational attainment and lower socioeconomic status. Most participants were married, belonged to nuclear families, and presented with manic episodes. Nearly two-fifths had a positive family history of psychiatric illness, emphasizing the contribution of genetic predisposition.

The findings provide valuable regional epidemiological data that may assist clinicians and healthcare planners in identifying vulnerable populations, promoting early diagnosis, and improving access to mental healthcare services, particularly in rural communities. Further multicentric longitudinal studies are recommended to better understand the evolving clinical profile and long-term outcomes of bipolar affective disorder in India.

Strengths of the study

- This study provides comprehensive sociodemographic and clinical data on patients with bipolar affective disorder from Southern Rajasthan, where published evidence is limited.
- Standardized ICD-10 diagnostic criteria were used for patient selection.
- The study included both outpatient and inpatient populations, improving the representation of patients attending a tertiary psychiatric centre.
- Consecutive enrolment of patients reduced selection bias within the hospital setting.

Limitations of the study

- The cross-sectional study design limits the establishment of causal relationships.
- Being a hospital-based study, the findings may not be generalizable to the community.
- Patients attending a tertiary referral centre may have relatively severe illness, introducing referral bias.
- The study was conducted at a single centre with a moderate sample size, limiting external validity.
- Longitudinal follow-up was not performed to assess changes in clinical characteristics over time.

Conflict of Interest

The authors declare that there is no conflict of interest.

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References

1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington (DC): American Psychiatric Association; 2013.
2. Merikangas KR, Jin R, He JP, Kessler RC, Lee S, Sampson NA, et al. Prevalence and correlates of bipolar spectrum disorder in the World Mental Health Survey Initiative. Arch Gen Psychiatry. 2011;68(3):241-251.

3. Hasin DS, Grant BF. The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) Waves 1 and 2: review and summary of findings. Soc Psychiatry Psychiatr Epidemiol. 2015;50(11):1609-1640.
4. Ferrari AJ, Stockings E, Khoo JP, Erskine HE, Degenhardt L, Vos T, et al. The prevalence and burden of bipolar disorder: findings from the Global Burden of Disease Study 2013. Bipolar Disord. 2016;18(5):440-450.
5. India State-Level Disease Burden Initiative Mental Disorders Collaborators. The burden of mental disorders across the states of India: the Global Burden of Disease Study 1990-2017. Lancet Psychiatry. 2020;7(2):148-161.
6. Kupfer DJ. The increasing medical burden in bipolar disorder. JAMA. 2005;293(20):2528-2530.
7. Osby U, Brandt L, Correia N, Ekbom A, Sparén P. Excess mortality in bipolar and unipolar disorder in Sweden. Arch Gen Psychiatry. 2001;58(9):844-850.
8. Parker GB. Comorbidities in bipolar disorder: models and management. Med J Aust. 2010;193(S4):S18-S20.
9. Lublóy Á, Keresztúri JL, Németh A, Mihalicza P. Exploring factors of diagnostic delay for patients with bipolar disorder: a population-based cohort study. BMC Psychiatry. 2020;20:75.
10. Dagani J, Signorini G, Nielssen O, Bani M, Pastore A, Girolamo G, et al. Meta-analysis of the interval between the onset and management of bipolar disorder. Can J Psychiatry. 2017;62(4):247-258.
11. Drancourt N, Etain B, Lajnef M, Henry C, Raust A, Cochet B, et al. Duration of untreated bipolar disorder: missed opportunities on the long road to optimal treatment. Acta Psychiatr Scand. 2013;127(2):136-144.
12. National Institute for Health and Care Excellence. Bipolar disorder: assessment and management (NICE guideline CG185) [Internet]. London: NICE; 2014 [cited 2023 Oct 30]. Available from: https://www.nice.org.uk/guidance/cg185
13. Gautham MS, Gururaj G, Varghese M, Benegal V, Rao GN, Kokane A, et al. The National Mental Health Survey of India (2016): prevalence, socio-demographic correlates and treatment gap of mental morbidity. Int J Soc Psychiatry. 2020;66(4):361-372.
14. Suhas S, Manjunatha N, Kumar CN, Benegal V, Rao GN, Varghese M, et al. Firth's penalized logistic regression: a superior approach for analysis of data from India's National Mental Health Survey, 2016. Indian J Psychiatry. 2023;65(12):1208-1213.
15. Alonso J, Petukhova M, Vilagut G, Chatterji S, Heeringa S, Üstün TB, et al. Days out of role due to common physical and mental conditions: results from the WHO World Mental Health Surveys. Mol Psychiatry. 2011;16(12):1234-1246.