Original Research

Comparative Study of Inpatient vs. Outpatient Care in the Management of Acute Bipolar Disorder

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ABSTRACT

Aim: To compare the effectiveness and clinical outcomes of inpatient versus outpatient care in the management of acute episodes of bipolar disorder.

Materials and Methods: This prospective, comparative observational study was conducted at a tertiary care hospital with 140 patients diagnosed with acute bipolar disorder (DSM-5 criteria). Patients were divided into two groups: Inpatient (n=70) and Outpatient (n=70), based on clinical necessity. All participants received standard pharmacological treatment, psychoeducation, and follow-up for 8 weeks. Clinical assessments included the Young Mania Rating Scale (YMRS), Hamilton Depression Rating Scale (HAM-D), and Clinical Global Impressions (CGI) scale at baseline, week 4, and week 8. **Results:** Baseline characteristics were comparable between groups. Both groups showed significant improvement over 8 weeks; however, the inpatient group demonstrated greater reductions in YMRS scores at weeks 4 and 8 (p=0.04 and p=0.01, respectively), and better CGI scores by week 8 (p=0.02). Depressive symptom reduction (HAM-D) and medication adherence were also better in the inpatient group, though not statistically significant. Remission rates were higher and relapse rates lower in the inpatient group, without significant differences.

Conclusion:Both inpatient and outpatient care effectively manage acute bipolar episodes, but inpatient care may offer superior clinical improvement, especially for severe presentations. These findings support individualized treatment strategies and emphasize the need for integrated mental health services across care settings.

Keywords:Bipolar disorder, inpatient care, outpatient care, acute mania, treatment outcomes

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Introduction

Bipolar disorder is a chronic mental health condition characterized by alternating episodes of mania and depression, often requiring intensive intervention during acute phases. These episodes can drastically impair cognitive, emotional, and social functioning, and in severe cases, pose risks of self-harm or harm to others. The management of acute bipolar disorder whether during manic, depressive, or mixed episodes—demands timely and effective treatment strategies to stabilize mood, ensure safety, and initiate long-term recovery plans. Central to this management is the setting in which care is delivered: inpatient or outpatient.¹

Inpatient and outpatient care represent two distinct modalities in the mental health continuum. Inpatient

care involves hospitalization, providing round-theclock medical supervision and a structured environment for individuals in severe crisis. Outpatient care, on the other hand, offers a more flexible treatment approach, allowing patients to receive psychiatric services while continuing to live at home. Each model has its own advantages, limitations, and implications for clinical outcomes, cost-effectiveness, patient satisfaction, and long-term stability.²

The choice between inpatient and outpatient treatment for acute bipolar episodes is complex and often influenced by a variety of factors. Clinical severity, risk of harm to self or others, social support systems, previous treatment responses, and comorbid conditions all play a role in determining the most

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appropriate setting for care. For instance, individuals experiencing psychosis, extreme agitation, or suicidal ideation may require inpatient care for safety and stabilization. Conversely, patients with less severe symptoms or those who have strong support systems and adherence to treatment may be effectively managed in outpatient settings.³

Inpatient treatment offers a controlled environment where medication adjustments can be made swiftly and side effects monitored closely. It often includes a multidisciplinary involving team approach psychiatrists, nurses, psychologists, and social workers, delivering intensive therapeutic interventions. Patients benefit from immediate access to crisis intervention services, psychoeducation, and peer support groups. The intensive structure can be especially valuable during acute manic episodes, where individuals may have impaired judgment, poor insight, or high levels of impulsivity.4

Despite these advantages, inpatient care is associated with high costs and can be emotionally distressing for patients due to loss of autonomy, separation from loved ones, and potential stigmatization. It also may not always translate into sustained recovery once the patient is discharged, particularly if community are follow-up and support systems weak. Additionally, some patients may find the hospital environment restrictive, leading to resistance or disengagement from treatment. On the other hand, outpatient care emphasizes continuity of care within a patient's community, fostering autonomy and allowing individuals to maintain daily routines and relationships. Outpatient treatment includes regular psychiatric consultations, medication management, psychotherapy, and support from community mental health services. This approach can be particularly effective for patients who are motivated, have insight into their condition, and can adhere to treatment plans with minimal supervision.⁵

The outpatient model is generally more cost-effective and less disruptive to patients' lives. It supports the long-term management of bipolar disorder by integrating treatment into a person's real-world context. However, its success depends heavily on the availability and quality of outpatient services, patient reliability, and the presence of a supportive environment. In cases of severe mania or suicidal depression, outpatient care may be insufficient to address immediate risks or provide the intensity of intervention required.⁶

A comparative study of inpatient versus outpatient care in the management of acute bipolar disorder is essential for several reasons. First, it helps identify which treatment settings are most effective under specific clinical circumstances. Second, it allows healthcare providers to balance clinical outcomes with economic and social considerations. Third, such a study contributes to individualized treatment planning, ensuring that patients receive the most appropriate level of care based on their unique needs and circumstances.Moreover, as mental healthcare systems face increasing demand and resource constraints, optimizing the use of inpatient and outpatient services becomes a public health priority. Understanding the strengths and limitations of each setting can guide policymakers in allocating resources, designing integrated care models, and improving overall access to mental health services. In addition, it can empower patients and families to make informed decisions about treatment options during acute episodes. In recent years, there has been a shift toward reducing unnecessary hospitalizations in favor of community-based care. This trend is driven by both financial imperatives and a growing emphasis on patient-centered care. Nevertheless, acute episodes of bipolar disorder often present with complex and urgent clinical challenges that require flexibility in treatment planning. Therefore, rather than viewing inpatient and outpatient care as mutually exclusive, there is increasing recognition of the need for a continuum of care that allows for smooth transitions between levels of treatment intensity.^{7,8} This study aims to explore the comparative effectiveness, challenges, and outcomes of inpatient and outpatient care in managing acute bipolar disorder. It will examine clinical factors influencing the choice of setting, evaluate patient outcomes across both models, and discuss the broader implications for mental health systems and policy. By providing a nuanced analysis of the two approaches, the study seeks to contribute to more informed, efficient, and compassionate care for individuals navigating the complexities of bipolar disorder.

Materials and Methods

This was a prospective, comparative, observational study conducted at tertiary care hospital. The study aimed to compare the effectiveness and outcomes of inpatient versus outpatient care in the management of acute episodes of bipolar disorder. A total of 140 patients diagnosed with acute bipolar disorder, according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria, were enrolled. Participants were recruited from both emergency psychiatric services and outpatient psychiatry clinics.

Inclusion criteria were:

- Age between 18 65 years
- Clinical diagnosis of Bipolar I or II disorder presenting with an acute manic, depressive, or mixed episode
- Willingness to participate and provide informed consent (or consent from a legal guardian, if required)

Exclusion criteria included:

- Comorbid substance use disorder (except nicotine)
- Severe cognitive impairment or intellectual disability

- Organic brain disease or severe medical comorbidities requiring immediate hospitalization
- Pregnant or lactating women

Group Allocation

- Patients were non-randomly assigned to one of two groups based on clinical necessity and psychiatrist recommendation:
- **Inpatient Group (n=70):** Patients requiring hospitalization due to severity of symptoms, risk of harm to self/others, or lack of support at home.
- **Outpatient Group** (n=70): Patients deemed stable enough for management on an outpatient basis with adequate social support.

Demographic and clinical baseline data were collected at enrollment, including age, sex, duration of illness, number of previous episodes, type of current episode (mania, depression, mixed), and current medication regimen.

Treatment and Follow-Up

All patients received standard treatment in accordance with current clinical guidelines, which included the use of mood stabilizers such as lithium or valproate, antipsychotic medications, and antidepressants when indicated. In addition to pharmacological management, psychosocial interventions including psychoeducation and family counseling were administered as appropriate to enhance treatment outcomes. Patients were monitored over a period of 8 weeks, with clinical assessments conducted at baseline, at 4 weeks, and at the 8-week mark. Symptom severity and treatment response were evaluated using the Young Mania Rating Scale (YMRS) for manic symptoms, the Hamilton Depression Rating Scale (HAM-D) for depressive symptoms, and the Clinical Global Impressions (CGI) scale for overall clinical status. Throughout the study period, medication adherence and any adverse events were systematically recorded.

Statistical Analysis

Data were analyzed using SPSS v26. Descriptive statistics were used for demographic variables. Between-group comparisons were performed using independent t-tests for continuous variables and chi-square tests for categorical variables. Repeated measures ANOVA was used to assess changes over time within and between groups. A p-value of <0.05 was considered statistically significant.

Results

Table 1 presents the demographic and baseline clinical characteristics of the two groups. The mean age of patients was comparable between the inpatient group $(34.80 \pm 9.20 \text{ years})$ and the outpatient group $(35.30 \pm 8.70 \text{ years})$, with no significant difference (p = 0.68). Gender distribution was also similar, with a slightly higher proportion of males in both groups

(54.29% in inpatient vs. 51.43% in outpatient; p = 0.72). The mean duration of illness and the number of previous episodes did not differ significantly between groups, indicating that both cohorts were clinically comparable at baseline (p = 0.46 and p = 0.33, respectively). In terms of the type of current episode, manic episodes were the most common in both groups (60.00% in inpatient vs. 54.29% in outpatient), followed by depressive and mixed episodes. However, the distribution of episode types was not statistically different (p = 0.48).

Table 2 outlines the treatment modalities received by both groups. The vast majority of patients in both groups received mood stabilizers (94.29% inpatient vs. 91.43% outpatient; p = 0.55). Antipsychotic use was more frequent in the inpatient group (85.71%) compared to the outpatient group (74.29%), though this difference approached but did not reach statistical significance (p = 0.08). The use of antidepressants, psychoeducation, and family counseling was also similar across both groups, with no significant differences noted (p-values ranging from 0.41 to 0.65), indicating comparable treatment approaches in both settings aside from potentially more intensive pharmacotherapy in the inpatient setting.

Table 3 presents the changes in clinical symptom scores over time. At baseline, YMRS scores were slightly higher in the inpatient group, although the difference was not statistically significant (p = 0.09). However, by week 4 and week 8, the inpatient group showed significantly greater reductions in manic symptoms (YMRS scores of 14.50 and 8.20 vs. 16.20 and 10.10; p = 0.04 and p = 0.01, respectively). HAM-D scores for depressive symptoms showed improvement in both groups, with the inpatient group showing slightly greater reductions by week 8, though not reaching statistical significance (p = 0.06). CGI-Severity scores also improved more in the inpatient group by week 8 (2.40 \pm 0.60 vs. 2.80 \pm 0.70; p = 0.02), indicating better overall clinical improvement in hospitalized patients.

Table 4 examines treatment adherence and adverse events. Good medication adherence was higher in the inpatient group (88.57%) compared to the outpatient group (78.57%), though this difference was not statistically significant (p = 0.11). Similarly, fewer inpatient participants missed more than two doses per week (8.57% vs. 15.71%), and the rate of reported side effects was comparable between groups (34.29% vs. 31.43%). Medication changes due to side effects or inefficacy were slightly more frequent in the inpatient group (14.29%) than in the outpatient group (11.43%), but again, this was not statistically significant (p = 0.62).

Table 5 summarizes clinical outcomes at the 8-week

 endpoint. A greater proportion of the inpatient group

achieved symptomatic remission, defined as a CGI score of ≤ 2 (74.29% vs. 62.86%), although this difference was not statistically significant (p = 0.13). Clinical relapse occurred in fewer inpatients than

outpatients (8.57% vs. 14.29%), and rehospitalization was also less frequent in the inpatient group (4.29% vs. 10.00%). These differences, while clinically notable, did not reach statistical significance.

Table 1. Demographic and Dasenne Chinical Characteristics			
Variable	Inpatient Group (n = 70)	Outpatient Group (n = 70)	p-value
Age (mean \pm SD)	34.80 ± 9.20	35.30 ± 8.70	0.68
Gender (Male/Female)	38 / 32 (54.29% / 45.71%)	36 / 34 (51.43% / 48.57%)	0.72
Duration of illness (yrs)	5.60 ± 3.10	5.20 ± 2.80	0.46
No. of previous episodes	3.40 ± 1.70	3.10 ± 1.50	0.33
Current episode type (%)			
– Manic	42 (60.00%)	38 (54.29%)	0.48
- Depressive	18 (25.71%)	20 (28.57%)	
- Mixed	10 (14.29%)	12 (17.14%)	

Table 1: Demographic and Baseline Clinical Characteristics

Table 2: Medication and Psychosocial Interventions Received

Treatment Type	Inpatient Group (n = 70)	Outpatient Group (n = 70)	p-value
Mood stabilizers	66 (94.29%)	64 (91.43%)	0.55
Antipsychotics	60 (85.71%)	52 (74.29%)	0.08
Antidepressants	20 (28.57%)	24 (34.29%)	0.48
Psychoeducation provided	68 (97.14%)	67 (95.71%)	0.65
Family counseling offered	58 (82.86%)	54 (77.14%)	0.41

Table 3: Mean Symptom Scores Over Time (YMRS, HAM-D, CGI)

YMRS Baseline 28.30 ± 6.10 26.70 ± 5.90 0.09	09
Week 4 14.50 ± 4.80 16.20 ± 5.10 0.04°)4*
Week 8 8.20 ± 3.30 10.10 ± 3.60 0.01°)1*
HAM-Baseline 24.10 ± 5.40 22.90 ± 5.20 0.18	18
D	
Week 4 14.00 ± 4.30 15.30 ± 4.70 0.10	10
Week 8 8.50 ± 3.10 9.70 ± 3.40 0.06	06
CGI-S Baseline 5.90 ± 0.80 5.70 ± 0.90 0.22	22
Week 8 2.40 ± 0.60 2.80 ± 0.70 0.02°)2*

*Statistically significant

Table 4: Treatment Adherence and Adverse Events

Outcome	Inpatient Group (n = 70)	Outpatient Group (n = 70)	p-value
Good medication adherence	62 (88.57%)	55 (78.57%)	0.11
Missed >2 doses/week	6 (8.57%)	11 (15.71%)	0.19
Reported side effects	24 (34.29%)	22 (31.43%)	0.70
Required medication change	10 (14.29%)	8 (11.43%)	0.62

Table 5: Remission and Relapse Rates at 8 Weeks

Outcome	Inpatient Group (n = 70)	Outpatient Group (n = 70)	p-value
Symptomatic remission (CGI ≤ 2)	52 (74.29%)	44 (62.86%)	0.13
Clinical relapse	6 (8.57%)	10 (14.29%)	0.28
Rehospitalization (if any)	3 (4.29%)	7 (10.00%)	0.19

Discussion

This study aimed to evaluate and compare the clinical outcomes of inpatient versus outpatient management in patients experiencing acute episodes of bipolar disorder. Both groups in the study were well-matched in terms of demographic and baseline clinical characteristics, including age, gender distribution, duration of illness, and number of previous episodes. This comparability allowed for a more accurate assessment of how the treatment setting impacted outcomes. The most common episode type in both groups was mania (60.00% in inpatients vs. 54.29% in outpatients), followed by depressive and mixed episodes, similar to the episode distributions seen in previous clinical samples of acute bipolar presentations.

The therapeutic strategies employed were aligned with standard clinical guidelines. The majority of

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patients in both inpatient (94.29%) and outpatient (91.43%)groups received mood stabilizers. Antipsychotic use was higher in the inpatient group (85.71% vs. 74.29%), likely reflecting the greater severity of manic symptoms requiring more intensive pharmacological management. Rates of psychoeducation and family counseling were also high in both groups, indicating the integration of psychosocial interventions across care settings. These findings resonate with Raune and Daddi (2011), who emphasized the therapeutic benefit of structured psychosocial interventions, even in acute inpatient populations, where over 75% of participants reported positive clinical gains.9

Clinical assessments demonstrated a significant improvement in manic symptoms among inpatients compared to outpatients. At week 8, the inpatient group had lower YMRS scores (8.20 ± 3.30) than the outpatient group (10.10 ± 3.60 ; p = 0.01), indicating a statistically significant reduction in mania. Improvements in depressive symptoms, measured via HAM-D, were also greater in the inpatient group by week 8 (8.50 \pm 3.10 vs. 9.70 \pm 3.40), although not statistically significant (p = 0.06). These results suggest a slightly superior trajectory of symptom improvement in hospitalized patients, possibly due to structured environments, consistent monitoring, and medication adherence. These findings align with Osby et al. (2009), who noted that inpatient care is often associated with quicker symptom stabilization and lower relapse risk, albeit with higher associated costs.10

In terms of overall functioning and treatment adherence, the inpatient group again showed modestly better outcomes. Medication adherence was higher in inpatients (88.57%) versus outpatients (78.57%), and fewer inpatients missed more than two doses per week. This greater adherence may be attributed to supervised medication administration and a more controlled environment. Reported side effects and medication changes were similar between groups, suggesting comparable tolerability of treatment across settings. These results are consistent with Wheeler et al. (2011), who reported that post-discharge adherence plays a crucial role in long-term outcomes, with poor compliance correlating with higher relapse rates and readmissions.¹¹

At the end of 8 weeks, a higher proportion of inpatients achieved symptomatic remission (74.29%) compared to outpatients (62.86%), although the difference did not reach statistical significance (p = 0.13). Clinical relapse was lower in the inpatient group (8.57% vs. 14.29%), and rehospitalization was also less frequent (4.29% vs. 10.00%). While these findings were not statistically significant, they do suggest clinically meaningful trends that support the role of inpatient care in preventing early relapse. These outcomes are in line with findings by Thibeault et al. (2010), who emphasized the therapeutic value of the inpatient milieu in providing patients with

structure, safety, and consistent care—all factors that contribute to improved short-term prognosis.¹²

Though inpatient care showed some advantages in clinical response and adherence, the economic implications cannot be ignored. Studies like that of Olié and Lévy (2002) and Osby et al. (2009) have highlighted the substantial financial burden associated with psychiatric hospitalizations.^{13,10} Therefore, while hospitalization may be more effective in acute symptom control, outpatient care remains a viable and cost-effective option for patients with adequate support systems. Emerging models such as those described by Kessing et al. (2021) and Cerimele et al. (2022) advocate for more structured, specialized outpatient services that combine psychiatric expertise with primary care, potentially bridging the gap between intensive inpatient and traditional outpatient care.14,15

Conclusion

This study demonstrated that both inpatient and outpatient care are effective in managing acute episodes of bipolar disorder, with inpatient care showing slightly better outcomes in symptom reduction, medication adherence, and remission rates. Although these differences were not always statistically significant, they suggest clinical advantages of inpatient treatment during acute phases. Outpatient care remains a valuable alternative, especially with adequate psychosocial support. The findings highlight the importance of individualized treatment planning and the need for integrated, structured care models across settings.

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