ORIGINAL ARTICLE

NUREXUS

Journal of MedVerse Research & Practice

ISSN: 3107-4278

Expressed Emotion and Caregiver Burden in Bipolar Affective Disorder

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Submission Date: 24.12.2025	Accepted Date: 20.01.2026	Published Date: 31.01.2026
DOI: 10.65188/nurexus.1062		

Abstract

Background: Caregivers of individuals with Bipolar Affective Disorder play a crucial role in long-term illness management. The chronic and relapsing course of the disorder places caregivers at risk of significant burden, which may influence emotional responses toward patients and affect clinical outcomes.

Objectives: To assess the level of caregiver burden and expressed emotion among caregivers of patients with Bipolar Affective Disorder and to examine the association between caregiver burden and expressed emotion.

Materials and Methods: This cross-sectional observational study was conducted over 24 months at the Psychiatry Centre of a tertiary care hospital in Western Maharashtra. A total of 55 patients diagnosed with Bipolar Affective Disorder for a minimum duration of two years and their primary caregivers were included. Sociodemographic and clinical data were collected using a semi-structured proforma. Caregiver burden was assessed using the Caregiver Burden Scale, and expressed emotion was evaluated using the Family Emotional Involvement and Criticism Scale. Statistical analysis was performed using SPSS version 26.0, employing descriptive statistics, correlation analysis, and multivariate regression, with a p value of less than 0.05 considered statistically significant.

Results: Most caregivers experienced moderate to severe levels of caregiver burden. Expressed emotion scores were elevated, with emotional over-involvement being more prominent than perceived criticism. A statistically significant association was observed between higher caregiver burden and elevated expressed emotion. Caregiver burden showed a moderate positive correlation with both perceived criticism and emotional over-involvement. Longer duration of caregiving, female gender, family history of psychiatric illness, and higher emotional over-involvement emerged as significant predictors of caregiver burden.

Conclusion: Caregivers of patients with Bipolar Affective Disorder experience substantial burden, which is significantly associated with adverse emotional responses. Early identification of high caregiver burden and expressed emotion may facilitate targeted family-focused interventions, improving caregiver well-being and potentially enhancing patient outcomes.

Keywords: Bipolar Affective Disorder; Caregiver burden; Expressed emotion; Family Emotional Involvement and Criticism Scale; Caregiver Burden Scale; Mental health caregiving

Introduction

Caregivers form the backbone of long-term care for individuals with severe mental illnesses, particularly in settings where family-based care predominates. Under the Mental Healthcare Act, 2017, a caregiver is defined as a person who lives with and provides care to an individual with mental illness, either voluntarily or otherwise, and may be a family member or another responsible individual [1]. In clinical practice, caregivers are actively involved in medication supervision, monitoring of symptoms, management of crises,

and provision of continuous emotional and social support. Severe mental disorders are often chronic, episodic, and disabling, resulting in sustained caregiving demands over extended periods. The burden experienced by caregivers of individuals with psychiatric illnesses has been reported to be greater than that associated with many chronic physical conditions [2]. Factors such as early age of onset, frequent relapses, prolonged duration of illness, functional impairment, and behavioral disturbances substantially increase caregiving responsibilities and psychological stress.

Caregiver burden refers to the cumulative physical, emotional, social, and financial strain experienced while providing care to a person with chronic illness [3]. It includes both objective components, such as disruption of daily routines, financial difficulties, and reduced occupational functioning, and subjective components, which encompass emotional distress, feelings of exhaustion, frustration, guilt, and helplessness [4]. When sustained over time, caregiver burden can negatively affect physical health, mental well-being, coping ability, and quality of life, ultimately influencing caregiving effectiveness.

In low- and middle-income countries, including India, family members constitute the primary support system for individuals with mental illness [5]. Despite their central role, caregivers often receive minimal formal support from mental health services. Conditions such as bipolar affective disorder place particularly high demands on caregivers due to their recurrent course, fluctuating symptom severity, and need for long-term pharmacological and psychosocial management. Family dynamics and caregiver responses have been shown to significantly influence treatment adherence, relapse risk, and overall clinical outcomes [6].

Expressed emotion (EE) is a widely studied construct that captures the emotional attitudes and interaction patterns of caregivers toward individuals with mental illness. High expressed emotion, typically characterized by critical comments, hostility, and excessive emotional involvement, has been consistently associated with increased relapse rates and poorer outcomes across psychiatric disorders [7]. George Brown originally conceptualized expressed emotion as comprising five dimensions: criticism, hostility, emotional over-involvement, warmth, and positive regard, reflecting the emotional climate within the family environment [8]. Evidence suggests a close relationship between caregiver burden and expressed emotion. Elevated burden may reduce emotional resilience and adaptive coping, leading to critical, overprotective, or hostile caregiving behaviors [9]. Sociodemographic factors such as female gender, lower educational status, longer duration of caregiving, advancing age, and socioeconomic disadvantage have been associated with higher levels of caregiver burden and adverse emotional responses.

Bipolar affective disorder is a severe and lifelong psychiatric condition characterized by recurrent episodes of mania, hypomania, and depression, resulting in significant psychosocial impairment [10]. The illness typically follows a relapsing course, with most individuals experiencing multiple episodes across their lifetime [11]. The unpredictability of mood episodes, behavioral disturbances during manic phases, and functional decline during depressive episodes impose considerable emotional and practical challenges on caregivers.

Caregivers of individuals with bipolar affective disorder often experience substantial psychological distress, disruption of family routines, social isolation, and financial strain [12]. The cyclical nature of remission and relapse, combined with long-term treatment requirements, may contribute to heightened caregiver burden and increased levels of expressed emotion. Understanding the interaction between caregiver burden and expressed emotion in this population is therefore essential for designing targeted family-based interventions that can improve caregiver well-being and enhance patient outcomes.

Materials and Methods

Study Design

This cross-sectional observational study was conducted to evaluate the relationship between expressed emotion and caregiver burden among primary caregivers of patients diagnosed with Bipolar Affective Disorder (BPAD).

Study Setting and Duration

The study was conducted over a period of 24 months at the Psychiatry Centre of a tertiary care hospital in Western Maharashtra. Patients attending the psychiatry outpatient departments, including the service OPD and civil OPD, as well as those admitted to the psychiatry wards, were screened for eligibility throughout the study period.

Study Population

The study population comprised patients diagnosed with Bipolar Affective Disorder and their respective primary caregivers. A minimum of 55 patients with BPAD of at least two years' duration and their primary caregivers who fulfilled the eligibility criteria were enrolled in the study.

Sample Size

A total of 55 patient-caregiver pairs were included in the study. The sample size was determined based on the number of eligible participants available during the study period.

Inclusion Criteria

Patients aged between 18 and 60 years with a confirmed diagnosis of Bipolar Affective Disorder according to the International Classification of Diseases, Tenth Revision (ICD-10; F31), having a minimum illness duration of two years, and willing to participate were included. Primary caregivers were defined as biologically or legally related family members aged 18 years or older, residing with the patient, providing unpaid care for at least six months, and actively involved in day-to-day caregiving.

Exclusion Criteria

Patients with comorbid psychiatric disorders, chronic medical or surgical illnesses, or Bipolar Affective Disorder secondary to alcohol or substance use were excluded. Caregivers with a known psychiatric illness, those receiving financial remuneration for caregiving, or individuals who were not biologically or legally related to the patient were also excluded.

Data Collection Tool

Data were collected using a semi-structured proforma after obtaining informed consent from all participants. Sociodemographic and clinical information was recorded for both patients and caregivers. Patient-related variables included age, gender, residence, marital status, educational status, occupation, socioeconomic status assessed using the Kuppuswamy scale, substance use history, age at onset and diagnosis of Bipolar Affective Disorder, family history of psychiatric illness, family type, number of family members, and current treatment details. Caregiver-related variables included age, gender, relationship to the patient, occupation, duration of caregiving, average daily caregiving hours, and the presence of medical or psychiatric illness. Expressed emotion was assessed using the Family Emotional Involvement and Criticism Scale (FEICS), a 14-item self-administered questionnaire evaluating perceived criticism and emotional over-involvement on a five-point Likert scale, with higher scores indicating greater expressed emotion. Caregiver burden was measured using the Caregiver Burden Scale (CBS), a standardized 21-item instrument assessing physical, emotional, social, and financial burden, with higher scores reflecting greater caregiver burden.

Ethical Considerations

The study protocol was reviewed and approved by the Institutional Ethics Committee before the commencement of the study. Written informed consent was obtained from all patients and caregivers prior to enrolment. Confidentiality and anonymity of participant information were strictly maintained by assigning unique identification numbers and ensuring that all collected data were used exclusively for research purposes.

Statistical Analysis

Data were entered into Microsoft Excel for coding and cleaning before being analyzed using the Statistical Package for the Social Sciences (SPSS) software version 26.0. Continuous variables were expressed as mean ± standard deviation or median with interquartile range according to data distribution, while categorical variables were summarized as frequencies and percentages. Normality of continuous variables was assessed using the Shapiro-Wilk test. Group comparisons were performed using appropriate parametric or non-parametric statistical tests. Associations between categorical variables were analyzed using the Chi-square test or Fisher's exact test. Correlation between expressed emotion and caregiver burden scores was evaluated using Pearson's or Spearman's correlation coefficient as appropriate. Multiple linear regression analysis was performed to identify independent predictors of caregiver burden after adjusting for potential confounding variables. A two-tailed *p*-value of less than 0.05 was considered statistically significant.

Results

Table 1. Sociodemographic profile of patients with Bipolar Affective Disorder (n = 55)

Variable	Number (%)
Age (years)	
18–30	14 (25.5)
31–45	26 (47.3)
46–60	15 (27.2)
Gender	
Male	33 (60.0)
Female	22 (40.0)
Residence	
Rural	31 (56.4)
Urban	24 (43.6)
Marital status	
Married	38 (69.1)
Unmarried	17 (30.9)

Most patients were in the 31–45-year age group (47.3%), followed by 46–60 years (27.2%). Males constituted a higher proportion (60%) than females. A majority of patients were from rural areas (56.4%) and were married (69.1%), indicating that BPAD predominantly affected middle-aged, married individuals from rural backgrounds.

Table 2. Sociodemographic profile of caregivers (n = 55)

Variable	Number (%)
Age (years)	
<40	21 (38.2)
≥40	34 (61.8)
Gender	
Male	29 (52.7)
Female	26 (47.3)
Relationship to patient	
Spouse	24 (43.6)
Parent	18 (32.7)
Sibling	13 (23.7)
Duration of caregiving	
<5 years	19 (34.5)
≥5 years	36 (65.5)

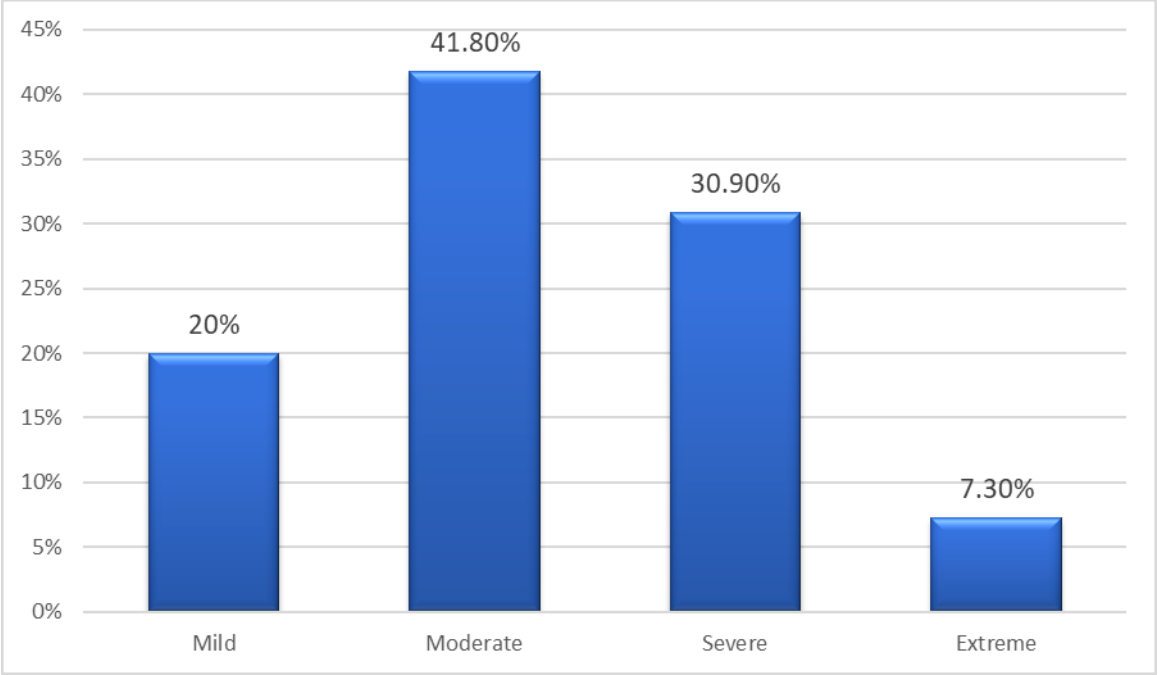
Most caregivers were aged 40 years or above (61.8%), with an almost equal distribution of males (52.7%) and females (47.3%). Spouses were the primary caregivers (43.6%), followed by parents (32.7%). A large proportion had been providing care for five years or more (65.5%), reflecting long-term caregiving responsibilities.

Table 3. Clinical profile of patients with BPAD (n = 55)

Variable	Number (%)
Duration of illness	
2–5 years	22 (40.0)
>5 years	33 (60.0)
Predominant episode type	
Manic	19 (34.5)
Depressive	21 (38.2)
Mixed	15 (27.3)
Family history of psychiatric illness	
Present	17 (30.9)
Absent	38 (69.1)

Sixty percent of patients had an illness duration exceeding five years, indicating chronicity. Depressive episodes (38.2%) were slightly more common than manic episodes (34.5%), while mixed episodes were also frequent (27.3%). Nearly one-third of patients (30.9%) had a positive family history of psychiatric illness.

Figure 1. Levels of caregiver burden based on Caregiver Burden Scale (CBS)



Most caregivers experienced moderate (41.8%) or severe (30.9%) levels of burden. Only 20% reported mild burden, and a small proportion (7.3%) experienced extreme burden. This highlights the significant caregiving strain associated with BPAD.

Table 4. Levels of expressed emotion among caregivers (FEICS subscales)

Expressed emotion component	Mean ± SD
Perceived criticism	16.8 ± 4.2
Emotional over-involvement	18.9 ± 4.6

The mean score for emotional over-involvement (18.9 ± 4.6) was higher than perceived criticism (16.8 ± 4.2). This suggests that caregivers tended to be more emotionally over-involved rather than critical toward patients.

Table 5. Association between caregiver burden and expressed emotion levels

Caregiver burden level	High EE n (%)	Low EE n (%)	p value
Mild to moderate	12 (35.3)	22 (64.7)	
Severe to extreme	17 (81.0)	4 (19.0)	0.001*

High expressed emotion was present in 81% of caregivers with severe to extreme burden, compared to 35.3% among those with mild to moderate burden. This statistically significant association (p = 0.001) indicates that higher caregiver burden is linked to increased expressed emotion.

Table 6. Correlation between caregiver burden and expressed emotion scores

Variables	Correlation coefficient (r)	p value
CBS vs Perceived criticism	0.46	<0.001
CBS vs Emotional over-involvement	0.52	<0.001

Caregiver burden showed a moderate positive correlation with perceived criticism (r = 0.46) and emotional over-involvement (r = 0.52). These significant correlations indicate that higher burden levels are associated with increased expressed emotion.

Table 7. Predictors of high caregiver burden (multiple linear regression)

Predictor	β coefficient	p value
Duration of caregiving ≥5 years	0.38	0.002
Female caregiver	0.29	0.01
Family history of psychiatric illness	0.26	0.02
Emotional over-involvement score	0.41	<0.001

Longer duration of caregiving (≥5 years) and higher emotional over-involvement scores were the strongest predictors of caregiver burden. Female caregivers and a family history of psychiatric illness were also significantly associated with increased caregiver burden.

Discussion

The present study assessed caregiver burden and expressed emotion among caregivers of patients with Bipolar Affective Disorder and demonstrated a significant association between caregiving burden and adverse emotional responses. The findings underscore the substantial psychosocial impact of bipolar affective disorder on caregivers and highlight the importance of addressing family-related factors in comprehensive psychiatric care.

A majority of caregivers in the present study experienced moderate to severe levels of burden. This observation is consistent with previous research indicating that bipolar affective disorder imposes considerable emotional, social, and functional strain on caregivers due to its chronic, recurrent, and unpredictable course [13,14]. Frequent relapses, prolonged treatment requirements, and persistent functional impairment of patients contribute cumulatively to caregiver stress and reduced quality of life.
Expressed emotion levels were notably elevated among caregivers, with emotional over-involvement being more prominent than perceived criticism. Similar patterns have been reported in earlier studies, suggesting

that caregivers of individuals with bipolar disorder often respond with excessive concern, overprotectiveness, and self-sacrificing behaviors rather than overt hostility [15–17]. Emotional over-involvement may reflect caregivers' attempts to prevent relapse and manage behavioral disturbances, particularly during manic or depressive episodes.

A key finding of this study was the statistically significant association between higher caregiver burden and elevated expressed emotion. Caregivers experiencing severe to extreme burden were more likely to exhibit high levels of expressed emotion. This finding aligns with previous evidence demonstrating that sustained caregiving stress adversely affects emotional regulation and coping mechanisms, resulting in critical or over-involved caregiving attitudes [18–20]. Such emotional responses may further contribute to interpersonal stress within the family environment. Correlation analysis revealed a moderate positive relationship between caregiver burden and both perceived criticism and emotional over-involvement. These findings are in agreement with earlier studies that reported increased emotional reactivity among caregivers experiencing higher levels of stress [21,22]. Emotional over-involvement may arise from heightened anxiety about illness outcomes, whereas perceived criticism may reflect frustration related to functional limitations and treatment non-adherence.

Longer duration of caregiving emerged as an independent predictor of higher caregiver burden. This observation supports earlier findings indicating that prolonged caregiving is associated with cumulative psychological strain, caregiver burnout, and reduced adaptive capacity [23]. As caregiving responsibilities extend over several years, coping resources may diminish, increasing vulnerability to emotional distress.
Female caregivers were found to experience significantly higher levels of burden compared to male caregivers. Similar gender differences have been consistently reported in the literature, with female caregivers exhibiting greater emotional involvement and role-related stress [24–26]. Sociocultural expectations, greater involvement in day-to-day caregiving activities, and limited access to social support may contribute to this disparity. The presence of a family history of psychiatric illness was also associated with increased caregiver burden. Caregivers with familial psychiatric vulnerability may experience heightened concerns regarding illness prognosis, relapse risk, and long-term caregiving demands. Comparable findings have been reported by previous studies emphasizing the influence of genetic and familial context on caregiver stress and emotional responses [27,28].

The strong association observed between emotional over-involvement and caregiver burden highlights the clinical relevance of assessing family emotional climate in bipolar affective disorder. High expressed emotion has been consistently linked to increased relapse rates and poorer clinical outcomes [29]. Psychosocial interventions focusing on caregiver education, stress management, and emotional regulation have demonstrated effectiveness in reducing expressed emotion and improving both caregiver well-being and patient outcomes [30].

Limitations: The cross-sectional design limits causal inference between caregiver burden and expressed emotion. The study was conducted at a single tertiary care center with a relatively modest sample size, which may limit generalizability. Self-report measures may be subject to response bias. Longitudinal, multi-center studies incorporating patient symptom severity and functional outcomes are recommended for future research.

Conclusion

The present study demonstrates that caregivers of patients with Bipolar Affective Disorder experience substantial levels of burden, with a significant proportion exhibiting high expressed emotion. A strong association was observed between caregiver burden and expressed emotion, particularly emotional over-

involvement. Longer duration of caregiving, female gender, family history of psychiatric illness, and higher expressed emotion emerged as important contributors to caregiver burden. These findings highlight the need for routine assessment of caregiver well-being and incorporation of family-focused psychosocial interventions in the comprehensive management of bipolar affective disorder.

Conflict of interest: No Conflict of interest

Source of Fund: Nil

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