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A Review of Predictors of Long Term Course and Outcome of Bipolar Mood Disorder

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Abstract **Review Article**

Background: Bipolar Mood Disorder is a chronic relapsing disorder affecting both the genders almost equally. The disorder is associated with significant functional impairment and disability. There are various factors which have been proposed as moderator of course and long term outcome. ***Objective***: The study aims to examine various predictors of long term course and outcome of Bipolar Mood Disorder. ***Conclusion***: The various predictors of long term course and outcome of Bipolar Mood Disorder are long duration of prodrome before first affective episode, past history of other psychiatric illness, agitated depression, comorbid psychiatric illness, predominant polarity, anxiety, severity of illness and Bipolar Disorder type II illness. Psychosocial disability in BD often lingers despite medication. Aside from medication, psychosocial interventions and support groups are also vital to improving functional outcome in Bipolar Disorder.

Keywords: Bipolar Mood Disorder, Long term course, Cognitive impairment, Functional impairment, Caregiver burden, Predominant polarity, Stress, Anxiety.

INTRODUCTION

Bipolar disorder (BD) is a common psychiatric disorder with prevalence rates ranging from 1% to 6.5% in the general population [1-4]. It is characterized by episodes of mania, hypomania, depression and mixed episodes with inter episodic recovery. The inter-episodic period is usually characterized by residual symptoms and subtle cognitive deficits. Overall, patients with BD experience significant impairment in functioning in many domains of their life, including work, social and family life, both during the acute episodes and during the clinical remission [5, 6]. Bipolar disorder is associated with multiple relapses and impairment in functioning [7]. It causes significant economic burden on patients with direct costs in the form of treatment and additionally, indirect costs in the form of unemployment, lost productivity and poor social functioning [8-11]. Caregivers also bear a substantial burden due to the illness and experience higher rates of caregiver burden, psychological morbidity including depression, poorer general health and more chronic medical conditions [12-14].

Sufficient information has accumulated to suggest that bipolar disorder is associated with cognitive deficits, which in turn influence the functional outcome of the disorder [15]. Previous research also suggests that many clinical variables like number of episodes, predominant polarity, type of first life time episode etc. also influence the course and outcome of bipolar disorder [16]. Data from India suggest that manic episodes are more common than the depressive episodes [17].

There are various factors that influence the long term course and outcome of Bipolar illness.

Predominant Polarity

Multiple earlier studies have found that Predominant Polarity (PP) may be an important determinant of Bipolar Disorder (BD), thus allowing unique groups of patients to be identified and provide an opportunity for tailored treatment. PP has been associated with multiple clinical outcomes related to the bipolar disorder, including cognitive deficits, suicide attempts, re-hospitalizations and response to treatment.

Gabriel Okawa Belizario *et al*., did a 7 year longitudinal study on bipolar patients to assess the role of predominant polarity on the long term outcome of Bipolar Mood disorders [18]. Subjects were recruited from the outpatient clinic of the Bipolar Disorder Research Program at the Institute of Psychiatry of the

University of São Paulo. Longitudinal data were collected through medical records and mood symptom were evaluated throughout a 7-year follow-up period.

Manic Predominant Polarity (MPP) was associated with a significantly higher number of hospitalizations, suicide attempts, and episodes with psychotic symptoms throughout the 7-year observed period in comparison to Depressive Predominant Polarity (DPP) and Indefinite Predominant Polarity (IPP) patients. The results revealed PP to be an important specifier for predicting the course of the disorder.

Early Predictors

Identifying factors predictive of long-term morbidity will help improve clinical planning limiting disability and mortality associated with bipolar disorder (BD).

G. Serra *et al.*, analyzed factors associated with total, depressive and mania-related long-term morbidity and their ratio D/M, as %-time ill between a first-lifetime major affective episode and last follow-up of 207 BD subjects [19]. Bivariate comparisons were followed by multivariable linear regression modeling.

Predictive factors for higher morbidity were – long duration of prodrome before first affective episode, past history of other psychiatric illness, agitated depression, comorbid psychiatric illness and Bipolar Disorder type II illness. More number of Depressive episodes were associated with greater morbidity in Bipolar illness.

Cognitive Dysfunction

Cognitive impairment is one of the strongest predictors of disability in Bipolar Disorder [20]. The cognitive impairment may occur even in the absence of mood symptoms in the course of illness and ultimately may affect the psychosocial functioning in Bipolar Disorder [21]. The effects of cognitive impairment to psychosocial adjustment is widely recognized in dementia, but the effects of cognitive impairment on the level of functioning in Bipolar Disorder may be subtler and even remains undiagnosed.

Compared to that in dementia, the cognitive impairment in BD is milder, and the impairment of psychosocial functioning is less dramatic. The main dysfunction in Bipolar Disorder during remission occurs in the domain of executive functions [22]. Thus, although cognitive impairment in BD is not as severe incapacitating as in Dementia, but the available data suggests that it contributes to significant disruption to psychosocial adjustment [23, 24].

Illness Severity

Illness severity is another strong predictor of psychosocial disability in BD[25]. Early age of onset, prolonged duration of mood episodes, more number of psychiatric hospitalizations, residual symptoms, comorbid psychosis, and substance use disorders all predict significant psychosocial dysfunction in BD [26-31].

Early age of onset negatively affects psychosocial development at an earlier stage, thus disrupting educational, professional, social and interpersonal growth. Persistent residual symptoms between mood episodes prevent efforts to reengage with psychosocial demand[32], and thereby make functional recovery and reintegration after hospital discharge quite difficult[33]. Finally, episodes of psychosis and chronic substance misuse affect insight, response to treatment and thus increase the morbidity [30, 31].

Anxiety

Bipolar Disorder has an increased rate of comorbid anxiety disorders at times even up-to over 50% in several studies [34]. Comorbid anxiety in BD is associated with more severe morbidity and poor prognosis. Previous studies found that people with BD who suffer from long term anxiety tend to have a younger age of onset, higher number of mood episodes, greater prevalence of substance use disorders and increased suicidal attempts [35-37].

Comorbid anxiety disorders predict poor functional outcome in BD, as indicated by lower GAF scores, decreased level of social functioning, low quality of life, and unemployment [38].

Diathesis-Stress

Earlier research in Bipolar Disorder highlight the interactions between genetics and environmental stress as important predictors of illness severity [39, 40]. Environmental stressors over a period of time cumulate to trigger a person's genetic predisposition to experience mood disturbance and affect the course of the illness after onset. In a recent review, Bender and Alloy discussed about evidence for three of these models—the kindling hypothesis of illness progression in BD, the behavioral approach system (BAS) dysregulation model, and the social rhythm disruption (SRD) model [39-43].

The kindling hypothesis postulates that major stressful life events (SLEs) are necessary to trigger first episode in BD, subsequently episodes become progressively become independent from stressors, to the point that future episodes may appear to occur without life stress.

There is some evidence that in persons with BD, the BAS may be hyper-sensitive and goal-related cues may result to hypomanic behavior, while threat-related cues may trigger depression [42].

Multiple studies found that SLEs, in combination with genetic differences, predict manic and depressive symptom severity and recurrence, poor functional recovery over the course of illness [44, 45].

CONCLUSION

In the current scenario the adjustment of the person in psychosocial environment receives far less attention than pharmacological interventions. In BD, the beneficial effects of medications are significant for many people, but they still offer limited remedy for the functional impairment. Psychosocial disability in BD often lingers despite medication, possibly in part because medications typically do not alleviate cognitive impairment and may, in fact, aggravate it. Although medication can improve psychosocial functioning in BD in general by ameliorating affective symptoms, pharmacological interventions alone may not have sufficient power to overcome the destabilizing effects of psychosocial demands that exceed the person's functional capacities.

This study found that the combination of psychosocial and pharmacological treatment can be beneficial for persons suffering from Bipolar Mood Disorder. This study will help the researcher to uncover the critical areas of functional impairment and cognitive dysfunction that many researchers were not able to explore. Aside from medication, psychosocial interventions and support groups are also vital to improving functional outcome in BD. Support groups and psychotherapy offer a context in which people can experience acceptance, appreciation and meaningful interpersonal connections.

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