

# Bipolar disorder: improvements in diagnostic testing



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## **Abstract**

The purpose of this literature review is to analyze multiple studies on the effectiveness of diagnosing bipolar disorder with current available methods. This review will present the definition and etiology of the neurological disorder that is bipolar disorder, while examining the current successful means of testing for bipolar disorder on both adolescence and adults: the DSM-5 and the ASMR. This review will also pose the question of how psychiatrists might be able to improve diagnostic testing of bipolar disorder through physiological measures, with a specific emphasis on the idea of testing for lithium deficiency.

*Keywords:* bipolar disorder, lithium, mood, mania, depression, diagnostic, dsm-5

## Bipolar Disorder: Improvements in Diagnostic Testing

### Introduction

The occurrence of Bipolar Disorder (BPD) has become more prevalent in today's society. Bipolar Disorder had been classically described by psychiatrists as occasional mood disturbances. More specifically, BPD is a mood disorder that is characterized by two occurring symptoms: mania and depression. Psychiatrists have narrowed down effective ways of diagnosing BPD through elimination of neurological conditions, as well as assessment of a patient's mood and behavior. However, there is no official physiological test for BPD available at this time. Psychiatrists have successful means of treating bipolar disorder, but more research should be done on diagnostic

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testing for physical markers of the illness. This literature review will examine current research into the diagnostic process of identifying patients with BPD, and examine ways in which psychiatrists could improve testing and diagnosis through physiological means (specifically: measuring patient's lithium levels for lithium deficiency).

## Review of Literature

### Etiology of Bipolar Disorder

There are two major factors that could possibly contribute to the etiology of BPD: biological factors and environmental factors (Datto, Pottorf, Feeley, LaPorte, & Liss, 2016; Kessler et al., 2003; Vandeleur, 2017).

Environmentally, frequent occurrences of extreme stress can lead to the onset of bipolar disorder, as well as experiencing different forms of trauma (such as the loss of a family member, sexual assault, or combat among veterans). Datto et al. (2016) noted that, biologically, physical changes seem to occur in the brains of patients with BPD, although the reasons for this remain unclear. Multiple researchers have tried to find predictive signs of a patient's potential for bipolar disorder when they exhibit symptoms of depression. Indicators of bipolar onset include a family's history of bipolar disorder, especially in first-degree relatives, as well as suggestive features such as seasonal patterns and patient's hormones (Andreasen, Rice, Endicott, Reich, & Coryell, 1986; Berk, M., Berk, L., Moss, Dodd, & Mahli, 2006; Kessler et al., 2003; Soreca, Frank, & Kupfer, 2009).

### Current Diagnostic Testing for Bipolar Disorder

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Recognizing Bipolar Disorder early in patients is critical to effectiveness of treatment. Newly found research indicates that early intervention results in a substantially more positive outcome for those suffering from BPD (Berk et al., 2006; Hunsley et al., 2014; Wang, Lane, Olfson, Pincus, Wells, & Kessler, 2005). Patients usually present the onset of BPD in early stages of life, and without treatment, they can not only experience the adverse affects of the disorder itself, but also disruption in development of relationships and social skills, that will in turn prevent them from being successful in the professional field (Hunsley et al., 2014).

Psychiatrists have made significant strides in understanding the symptoms of Bipolar Disorder, making them more effective at giving an accurate diagnosis. According to Depue, Krauss, Spont, & Arbisi (1989), before psychologist had a decent understanding of the symptoms and mechanisms of BPD, it would often be confused with other neurological disorders, such as schizophrenia or unipolar depression (where patients only experience symptoms of severe depression and not symptoms of mania). In recent years, psychiatrists in the United States have been using the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV ) to diagnose patients (Datto et al., 2016; First, Spitzer, & Williams, 1997; Sheehan et al., 1998) .

Often, when a patient is seeking help, an emphasis is made on their depressive symptoms, while their symptoms of mania can go ignored. Therefore, psychiatrists must note periods of high irritability or elevation in a patient's mood, in conjunction with symptoms that include lack of sleep, erratic behavior and/or thoughts, and compulsive speaking patterns (Altman, <https://assignbuster.com/bipolar-disorder-improvements-in-diagnostic-testing/>

Hedeker, Peterson, & Davis, 1997; Young, Biggs, Ziegler, & Meyer, 1978). If a psychiatrist has sufficient evidence to believe a patient is manic, they can administer the *Altman Self-Rating Mania Scale (ASRM)*, which has been shown to be more reliable than other self-rating systems (Altman et al., 1997). According to Altman, Hedeker, Peterson, & Davis (1997), the ASRM can assess the severity of the symptoms of mania in patients with good test-retest reliability, while being sensitive to a patient's improvement after treatment. Additional testing may be advised to rule out any symptoms that are congruent with other neurological diseases. Despite the improved efforts of psychiatrists to diagnose bipolar disorder, there is still no official measurable physiological test used for diagnosis.

## Discussion

### Contradictions in Diagnostic Methods

While improvements to the diagnostic process of Bipolar Disorder have been made, there are problems and contradictions with current methods. First, the criterion for diagnosing patients with BPD tends to be very narrow as compared with the broad criteria for diagnosing patients with unipolar depression, indicating the need for further research on both the etiology of BPD, as well as possible physiological markers of BPD. In addition, the DSM-IV only observes for a full-episode cycle of depression and mania, thus any sort of rapid cycling would not be diagnosable within the current specifications (Berk et al., 2006; First et al., 1997).

Second, prevalent diagnostic resources do not test for the specific stage of Bipolar Disorder that a patient may be experiencing. According to Berk et al. <https://assignbuster.com/bipolar-disorder-improvements-in-diagnostic-testing/>

(2006) “ there are five stages of Bipolar Disorder: the at-risk period, the prodrome, the first episode, the recurrence, and the treatment resistance.” These stages tend to present themselves in ways that are not always accounted for in DSM-IV testing. Also, there is discrepancy on the official duration of a manic episode, with some researchers claiming that four days of mania should be observed for diagnosis (Altman et al., 1997; First et al., 1997; Johnson, & Carver, 2006; Sheehan et al., 1998), and other researchers claiming that two days is all that is necessary for observation of symptoms (Berk et al., 2006; Depue et al., 1989; Wang et al., 2005).

Third, while the Altman Self-Rating Mania Scale has the advantage of test-reliability, it also has a disadvantage in that it does not measure both manic and depressive symptoms together, and only focuses on a patient’s mania. Determining whether or not a patient is suffering from Bipolar Disorder requires psychiatrists to consider both depression and mania congruently, not manic episodes alone.

### Conclusion and Future Study

The current procedures for assessing patients for Bipolar Disorder have allowed psychiatrists to more accurately diagnose and treat individuals who are suffering from cycles of mania and depression. Among those treatments, Lithium, a mood stabilizer, has been showed to be one of the most effective forms of regulating a patient’s symptoms. However, little research has been done on the physiological markers that might help psychiatrists with both diagnosis and early prevention of episodes of BPD. According to Monteggia (2017), the protein BDNF tends to be lower in patients with BPD, causing

their neurons to form fewer connections with each other. When Lithium is introduced, the levels of these connections among neurons have been shown to increase (Monteggia, 2017). Since Lithium is so effective when being used during treatment, future research should focus on the possibility of testing for Lithium deficiency in patients showing signs of depression and mania. If a physiological test could be derived from examining the amount of lithium in a patient's system before that patient begins treatment, we may be able to sharpen our diagnostic abilities and provide a more targeted treatment for BPD.

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