Concise Reference

Diagnosing Bipolar Disorder

Eduard Vieta

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Extracted from: Managing Bipolar Disorder in Clinical Practice, 3rd Edition
and Assessment Scales in Bipolar Disorder, 2nd Edition

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CHAPTER ONE

OVERVIEW OF BIPOLAR DISORDER

Definitions

Bipolar disorder is a severe chronic mood disorder characterized by episodes of mania or hypomania alternating or commingling with episodes of depression. Bipolar disorder may also be referred to as manic depression, bipolar affective disorder, or bipolar spectrum disorder.

There are two main diagnostic schemes defining bipolar disorder: the International Classification of Mental and Behavioral Disorders of the World Health Organization (10th revision; ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (5th edition; DSM-5).

ICD-10 definition

The ICD-10 defines bipolar affective disorder as follows: a disorder characterized by two or more episodes in which the patient’s mood and activity levels are significantly disturbed, this disturbance consisting on some occasions of an elevation of mood and increased energy and activity (hypomania or mania) and on others of a lowering of mood and decreased energy and activity (depression). Repeated episodes of hypomania or mania only are classified as bipolar.

The ICD-10 definition includes the following subdivisions that reflect the nature of the current episode:

- hypomania;
- mania without psychotic symptoms;
- mania with psychotic symptoms;
- mild or moderate depression;
- severe depression without psychotic symptoms;
- severe depression with psychotic symptoms;
- mixed;
- in remission; and
- unspecified.
CHAPTER ONE

CONCISE REFERENCE: DIAGNOSING BIPOLAR DISORDER

OVERVIEW OF BIPOLAR DISORDER

Table 1.1

Manic episodes: mean rate of symptom occurrence.
Adapted from Goodwin and Jamison. [4]

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Occurrence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood symptoms</td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td>80</td>
</tr>
<tr>
<td>Euphoria</td>
<td>71</td>
</tr>
<tr>
<td>Depression</td>
<td>37</td>
</tr>
<tr>
<td>Lability</td>
<td>63</td>
</tr>
<tr>
<td>Expansiveness</td>
<td>60</td>
</tr>
<tr>
<td>Cognitive symptoms</td>
<td></td>
</tr>
<tr>
<td>Grandiosity</td>
<td>77</td>
</tr>
<tr>
<td>Flight of ideas, racing thoughts</td>
<td>77</td>
</tr>
<tr>
<td>Distractibility, poor concentration</td>
<td>71</td>
</tr>
<tr>
<td>Delusions (mood congruent)</td>
<td>25</td>
</tr>
<tr>
<td>Delusions (mood incongruent)</td>
<td></td>
</tr>
<tr>
<td>Unspecified</td>
<td></td>
</tr>
</tbody>
</table>

Types of mood episode

Mania

Mania is a complex mood state characterized by a rapid and major change in the individual's usual behavior. Mania has a diverse clinical presentation; a constellation of symptoms, lasting for at least 1 week, is required for diagnosis. The range of symptoms in mania has been described by Goodwin and Jamison and is summarized in Table 1.1. [4]

Mania is sometimes subdivided into euphoric mania (with expansivity and elation) and irritable mania (with anger, aggressiveness, or even furor). Alternatively, mania may be distinguished by the presence of psychotic features (such as hallucinations, delusions, formal thought disorder, catatonia, or agitation). Moreover, delusions can be ‘mood congruent’ (eg, grandiosity) or ‘mood incongruent’ (eg, persecutory, strange delusions).
Mixed episodes are characterized by the presence of manic symptoms as well as depressive symptoms, with a duration of at least 1 week. Because both manic and depressive features must meet the full diagnostic criteria, mixed episodes are difficult to diagnose. More frequent are dysphoric manic episodes (or depressive and/or anxious mania) presenting with at least two typical depressive symptoms. Other types of mixed states, such as agitated depressions, have been poorly studied.\(^\text{[5]}\)

**Early warning signs**

Episodes of both mania and depression may be preceded by a prodromal period. These early signs, events, and stressors (sometimes known as the ‘relapse signature’) can vary from person to person, but typically include a marked increase in the number and magnitude of symptoms compared with remission.

**Age of onset**

The first episode of bipolar disorder typically occurs in the second or third decade of life, with the peak age of onset between 15 and 25 years. However, there is often an interval of 5–10 years between the age at onset and first treatment or first hospitalization.\(^\text{[6]}\)

Onset of mania before the age of 15 has been less well studied, and diagnosing bipolar disorder in this age group may be complicated by its atypical presentation with attention deficit hyperactivity disorder. Thus, the true age at onset of bipolar disorder is still unclear and may be younger than reported for the full syndrome.\(^\text{[7]}\) Onset of mania in individuals over 60 years of age is less likely to have a genetic basis; rather, it tends to be associated with underlying organic illness such as stroke or central nervous system lesions.\(^\text{[8]}\)

**Course of illness**

Bipolar disorder is generally an episodic, lifelong illness with a very variable course. The first episodes may be manic, hypomanic, mixed, or depressive. In the first decade after diagnosis, the average patient with bipolar disorder will experience around four major mood episodes. The traditional view is that the duration of episodes and interepisode remissions become progressively shorter, before stabilizing after the fourth or fifth episode at around one episode per year, with an average around one episode per year.
from disease onset.RO5 Only 10–15% of patients have four or more episodes per year (‘rapid cyclers’) with partial or full remissions in between, or switch to the opposite polarity (manic to depressed, or vice versa).21 If untreated, a patient with bipolar disorder may experience more than 10 episodes during their lifetime.21 Most individuals, over the long term, report fewer manic than depressive episodes. Manic episodes tend to begin abruptly and last for between 2 weeks and 5 months (median: 4 months). MDEs tend to last longer (median: 6 months), though rarely for more than 1 year, and tend to become more common and longer lasting after middle age.21 It is estimated that a large percentage of patients with bipolar disorder will spend at least half their lives with some degree of depressive symptomatology.

Psychosocial consequences

Bipolar disorder has significant psychosocial consequences for the patient and may have a devastating impact on personal, occupational, and family life.24 Even with optimal treatment, people with bipolar disorder spend around half their time with symptoms and, when compared with healthy individuals, people with bipolar disorder reported significantly less satisfaction with their quality of life.24 Patients with bipolar disorder in remission are often still seriously disabled in their occupational functioning, interpersonal relationships, cognitive performance, autonomy, and finances.24 Bipolar disorder also greatly increases healthcare utilization and the need for welfare and disability benefits.27

Bipolar disorder is associated with a high rate of psychiatric comorbidity. Indeed, it is uncommon to find a patient with bipolar disorder who does not meet criteria for at least one other psychiatric disorder.28 For example, individuals with bipolar disorder frequently exhibit alcohol or substance abuse,29 which may amplify the severity of illness and increase the likelihood of hospitalization. Bipolar disorder is associated with a range of other non-psychiatric comorbidities, which are summarized in Table 1.3.21

Given the negative consequences of bipolar disorder for the patient as well as for their family, friends, and wider society, there is clearly a place for effective management strategies. With adequate containment of their disease, patients with bipolar disorder can improve their social and occupational functioning, sustain high work productivity, and achieve acceptable quality of life, which in turn should reduce service utilization and lifetime healthcare costs. Moreover, effective treatment may reduce the high morbidity and mortality (including suicide) associated with bipolar disorder.

### Table 1.3

<table>
<thead>
<tr>
<th>Comorbidity</th>
<th>Number of patients</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious and parasitic diseases</td>
<td>105</td>
<td>7.6</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>39</td>
<td>2.8</td>
</tr>
<tr>
<td>Endocrine, nutritional, and metabolic disease</td>
<td>187</td>
<td>13.6</td>
</tr>
<tr>
<td>Diseases of blood</td>
<td>21</td>
<td>1.5</td>
</tr>
<tr>
<td>Diseases of the nervous system and sense organs</td>
<td>147</td>
<td>10.7</td>
</tr>
<tr>
<td>Diseases of the endocrine system</td>
<td>179</td>
<td>13.0</td>
</tr>
<tr>
<td>Diseases of the blood system</td>
<td>101</td>
<td>7.3</td>
</tr>
<tr>
<td>Diseases of the digestive system</td>
<td>101</td>
<td>7.3</td>
</tr>
<tr>
<td>Diseases of the respiratory system</td>
<td>51</td>
<td>3.7</td>
</tr>
<tr>
<td>Complications of pregnancy, childbirth, and the puerperium</td>
<td>5</td>
<td>0.4</td>
</tr>
<tr>
<td>Diseases of the skin and subcutaneous tissue</td>
<td>28</td>
<td>2.0</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system and injury</td>
<td>141</td>
<td>10.7</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Prognosis

Several recent long-term outcome studies have confirmed the recurrent and often persistent nature of psychopathology in bipolar disorder, with high relapse rates in around three-quarters of patients.22 Interestingly, functional recovery appears to lag behind symptomatic or syndromic recovery, even after a single manic episode.22 Psychosocial deficits after repeated episodes include lower income and educational or job status versus premorbid levels of impaired social functioning and marital status.22 Bipolar disorder proves fatal in a high proportion of patients from complications of risk-taking behavior, comorbid medical illnesses, and suicide.22
DIAGNOSTIC CRITERIA

Diagnosing bipolar disorder

The diagnosis of bipolar disorder relies on clinical assessment, augmented by the use of screening tools and diagnostic scales. As discussed in Chapter 1, two diagnostic schemes are used: the International Classification of Mental and Behavioral Disorders, 10th edition (ICD-10)[1,2] and the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5).[3] The Structured Clinical Interview for DSM (SCID) is the standard research tool to identify bipolar disorder according to the DSM-5 criteria,[4] whereas the Present State Examination can be used for ICD-10 diagnostic coding.[5]

DSM-5

According to the DSM-5, patients with bipolar I disorder have had at least one episode of mania.[6] Some patients have had previous depressive episodes, and most patients will have subsequent episodes that are either manic or depressive. Hypomanic and mixed episodes may also occur, as can significant subthreshold mood lability between episodes.[7] By contrast, patients meeting criteria for bipolar II disorder have a history of major depressive episodes (MDEs) and hypomanic episodes only. Clinical differences between bipolar I and bipolar II disorders are summarized in Table 2.1.[8] Some patients may exhibit significant evidence of mood lability and affective symptoms but fail to meet duration criteria for bipolar disorder, thereby leading to a diagnosis of unspecified bipolar and related disorder. Diagnostic features include very rapid alternation between manic and depressive symptoms, recurrent hypomania.

References

A manic episode can cause a mood disturbance sufficiently severe to cause marked impairment in occupational functioning, usual social activities, or relationships with others, necessitate hospitalization to prevent harm to self or others, and/or have psychotic features. The symptoms are not due to the direct physiological effects of a substance or a general medical condition and do not meet the criteria for a mixed episode.

Hypomania
The symptoms for hypomania are the same as those found in mania but the episode is not severe enough to cause marked impairment and disruption to work and social functioning, or require hospitalization. Hypomanic symptoms last for at least 4 consecutive days for most of the day.

Depressive episode
Depressive episodes contain five or more of the following symptoms over a 2-week period, representing a marked change from the patient’s usual behavior when not symptomatic:

- Depressed mood most of the day, every day (irritation in children and adolescents);
- Capacity for enjoyment, interest, and pleasure in activities is reduced;
- Fatigue or lack of energy;
- Disturbed sleep;
- Changes to appetite and unintentional significant weight loss or gain;
- Reduced self-esteem and self-confidence;
- Ideas of guilt or worthlessness; and
- Recurrent thoughts of death, suicidal ideation, creating a specific plan for committing suicide, or a suicide attempt.

ICD-10
The ICD-10 diagnostic criteria are mostly equivalent to those of DSM-5, although there is no distinction between bipolar I and bipolar II disorders. ICD-10 defines bipolar affective disorder as multiple episodes of mania/hypomania, or both depression and mania/hypomania, as well as specifying the nature of the current episode. The ICD-10 scheme divides depressive episodes according to their severity (mild, moderate, severe).
It also classifies both manic and severe depressive episodes as with or without psychotic symptoms. The key features of the ICD-10 scheme are highlighted below.

### Mania without psychotic symptoms

For at least 1 week (or less if hospitalized): mood elevation, expansive, or irritable out of keeping with the patient’s circumstances. At least three of the following are present:

- increased activity or physical restlessness;
- pressure of speech;
- flight of ideas or racing thoughts;
- loss of normal social inhibitions;
- decreased need for sleep;
- distractibility or constant changes in plans;
- inflated self-esteem with grandiose ideas and overconfidence;
- behavior that is foolhardy and reckless; and
- marked sexual energy or indiscretion.

### Mania with psychotic symptoms

As mania without psychotic symptoms, but in addition: delusions (usually grandiose) or hallucinations (usually of voices speaking directly to the excessive motor activity, and flight of ideas that are so extreme that the person is incomprehensible or inaccessible to ordinary communication.

### Hypomania

Persistent mild elevation or irritability of mood for at least 4 days. At least three of the following are present:

- increased energy and activity;
- increased sociability;
- talkativeness;
- over-familiarity;
- increased sexual energy;
- mild overspending or other types of recklessness and irresponsible behavior;
- decreased need for sleep; and,
- difficulty in concentration or distractibility.

### Depressive episode

Depressive episodes may be specified as mild (at least four symptoms), moderate (at least six symptoms and difficulty performing ordinary activities), or severe (at least eight symptoms, symptoms are marked and distressing). For at least 2 weeks, the patient experiences:

- lowering of mood;
- reduction of energy, and decrease in activity;
- capacity for enjoyment, interest, and concentration is reduced;
- marked tiredness even after minimum effort;
- disturbed sleep;
- diminished appetite;
- reduced self-esteem and self-confidence;
- ideas of guilt or worthlessness;
- low mood varies little from day-to-day (unresponsive to circumstances); and
- somatic symptoms (loss of interest in pleasure, waking in the morning before the usual time, depression worse in the morning, marked psychomotor retardation, agitation, loss of appetite, weight loss, and loss of libido).

Severe depressive episodes are specified as with or without psychotic symptoms, with psychotic symptoms defined as the presence of delusions, hallucinations, or depressive stupor. Auditory or olfactory hallucinations are usually of defamatory or accusatory voices or of rotting filth or decomposing flesh. Severe psychomotor retardation may progress to stupor. If required, delusions or hallucinations may be specified as mood congruent or mood incongruent.

### Diagnostic challenges

Misdiagnosis and undertreatment

Diagnosing bipolar disorder can be a challenge, and delays of up to 20 years between the onset of symptoms and initiation of treatment have been reported. Delays in diagnosis may be associated with instability of presentation. For instance, in a cohort of patients experiencing a first psychotic episode, only 75% of patients retained their initial diagnosis of bipolar disorder after 6 months.

Bipolar disorder, however, happened to be the most stable diagnosis in a large cohort of 500 patients with first-episode psychosis in the McLean Harvard First Episode Project.
CHAPTER TWO CONCISE REFERENCE: DIAGNOSING BIPOLAR DISORDER

A survey of 600 patients with bipolar disorder found that two-thirds were initially misdiagnosed; the incorrect diagnoses included major depressive disorder, anxiety disorder, schizophrenia, and personality disorder. In this study, one-third of respondents experienced a delay of more than 10 years between first consultation and accurate diagnosis. Those who were misdiagnosed consulted an average of four physicians and received an average of 3.5 different incorrect diagnoses.[12]

Factors that can confound the diagnostic process include overlapping symptomatology, particularly with major depressive disorder (unipolar depression), comorbidities (especially anxiety and substance use disorders), and the late occurrence of manic or hypomanic symptoms in patients with recurrent depressive illness. It is estimated that 35–45% of patients with bipolar I disorder are misdiagnosed with unipolar depression. One of the reasons for this is that patients with bipolar disorder seek treatment in the depressive state two to three times more often than in the manic state.[20] Another factor is that many patients with hypomania regard their symptoms as normal or desirable, and therefore underreport them.[21] Applying the DSM-5 and bipolarity criteria to patients in treatment for major depressive disorder may help identify early on those who may be at risk of developing bipolar disorder.[18]

A major consequence of the failure to accurately identify and diagnose patients with bipolar disorder is to worsen their long-term prognosis. Delayed diagnosis allows complications and comorbidities, including substance misuse, to progress.[7,15] Furthermore, pharmacological and psychosocial treatments for bipolar disorder may be less effective in patients who have experienced several untreated or inappropriately treated episodes.[16,17]

Differential diagnosis

Clinical features that differentiate between unipolar and bipolar depression are summarized in Table 2.2. Clinical features suggestive of bipolarity in patients presenting with depressive symptoms are given in Table 2.3.[22] Many other conditions can produce symptoms similar to those seen in bipolar disorder, including general medical conditions, alcohol and substance abuse, medications, and psychiatric disorders including schizophrenia.

Table 2.2

<table>
<thead>
<tr>
<th>Clinical feature</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unipolar depression</strong></td>
<td>Bipolar depression</td>
</tr>
<tr>
<td>Typically emerges after the age of 25 years</td>
<td>Typically emerges before the age of 25 years</td>
</tr>
<tr>
<td>Episodes may be abrupt in onset (hours or days)</td>
<td>Often periodic or seasonal</td>
</tr>
<tr>
<td>Treatment-emergent mania/hypomania during antidepressant monotherapy may be suggestive of bipolarity</td>
<td></td>
</tr>
<tr>
<td>No history of mania or hypomania</td>
<td>Highly heritable; bipolar disorder often runs in families, and a thorough family history is a vital diagnostic step</td>
</tr>
<tr>
<td>A history of mania, hypomania, or increased energy and decreased need for sleep</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.3

<table>
<thead>
<tr>
<th>Clinical feature</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A history of antidepressant failures</td>
<td>Failure to respond to three or more adequate trials of unimodal antidepressants</td>
</tr>
<tr>
<td>Antidepressant-induced activation</td>
<td>Activation of symptoms such as restlessness, irritability, and insomnia, particularly in patients initially diagnosed with panic disorder or generalized anxiety disorder</td>
</tr>
<tr>
<td>Behavioral disruptions</td>
<td>Patients exhibiting disruptive behavioral patterns should be assessed for both bipolar disorder and axis II personality disorder</td>
</tr>
<tr>
<td>History of manic/hypomanic symptoms</td>
<td>Patients presenting with depressive symptoms often fail to recall or recognize periods of mania/hypomania, and input from significant others or caregivers may prove useful. Education directed at helping patients recognize past or current hypomania is important</td>
</tr>
</tbody>
</table>

[12] A survey of 600 patients with bipolar disorder found that two-thirds were initially misdiagnosed; the incorrect diagnoses included major depressive disorder, anxiety disorder, schizophrenia, and personality disorder. In this study, one-third of respondents experienced a delay of more than 10 years between first consultation and accurate diagnosis. Those who were misdiagnosed consulted an average of four physicians and received an average of 3.5 different incorrect diagnoses.

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[7,15] Furthermore, pharmacological and psychosocial treatments for bipolar disorder may be less effective in patients who have experienced several untreated or inappropriately treated episodes.

[16,17] Many other conditions can produce symptoms similar to those seen in bipolar disorder, including general medical conditions, alcohol and substance abuse, medications, and psychiatric disorders including schizophrenia.

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DETECTION OF BIPOLAR I AND II

Screening tools and assessment scales

For the busy physician with limited time, screening questionnaires and rating scales can be very useful. The use of rating scales in bipolar disorders can steer the clinician towards appropriate treatment by:

- helping to establish an accurate diagnosis;
- grading the severity of the condition by quantifying the degree of impairment and disability; and
- characterizing the nature of the symptoms and impairment to enable treatment plans to be tailored to the individual’s needs.

There is no ‘gold standard’ screening tool, but several scales that are relevant in diagnosing bipolar disorder will be discussed in brief.

Detecting Bipolar I

Screening questionnaires such as the Mood Disorder Questionnaire (MDQ) can be highly useful for the detection of Bipolar I. Not only do they provide an overall score that can be used to assess the probability of bipolar disorder, but they can also identify specific symptoms (which the physician can further elaborate) and the degree of functional impairment experienced by the patient during symptomatic episodes. Such screening instruments can also enhance clinician–patient communication by providing a focus for subsequent discussion.
The definition of bipolar disorder is likely to evolve further, but two important recent revisions to the diagnostic criteria relate to the duration of hypomanic episodes and the inclusion of ‘softer’ criteria. Currently, according to DSM-5, a diagnosis of hypomania requires symptoms to be present for at least 4 days. There is a strong case being made for reducing this duration even further, to avoid ignoring hypomanic episodes of shorter duration and thus mistakenly diagnosing a patient with ‘unipolar’ rather than bipolar depression. The mean modal duration of hypomania is 1–3 days.

**Bipolar Spectrum Diagnostic Scale**

The Bipolar Spectrum Diagnostic Scale (BSDS) is a screening instrument for bipolar spectrum disorder that is more sensitive to bipolar II disorder than the MDQ. It is a narrative account of 19 features that may occur in people with bipolar disorder. The narrative is read by the patient who then rates it for overall applicability to their particular situation, before rating each item of the narrative. A total score is obtained which can then be used to evaluate the probability that bipolar spectrum disorder is present. This style of evaluation is designed to capture the more subtle features of bipolar II disorder.

The scale was originally created by Dr Ronald Pies and then further revised and field tested by Drs Nassir Ghaemi and Chris Miller, who compared it with the MDQ. In this research, the MDQ was administered to 37 patients with bipolar disorder, and the BSDS to 73 patients with bipolar disorder and 20 patients with unipolar illness. The results on all scales were compared with clinicians’ DSM-IV-based diagnoses. The overall sensitivity of the BSDS was 0.81 and was similar in both bipolar I and bipolar II patients (0.77 each). Specificity was high (0.85) when the scale was used in unipolar depressed patients. The MDQ was more sensitive for bipolar I than bipolar spectrum illness, whereas the BSDS was highly sensitive and specific for bipolar spectrum illness.

A cut-off score of 13 was identified as the optimal balance of sensitivity and specificity, and this can be used to signify ‘caseness’. However, the scale can also be scored in terms of probability, as shown in Table 3.1.

<table>
<thead>
<tr>
<th>Score</th>
<th>Likelihood of bipolar disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–6</td>
<td>Highly unlikely</td>
</tr>
<tr>
<td>7–12</td>
<td>Low probability</td>
</tr>
<tr>
<td>13–19</td>
<td>Moderate probability</td>
</tr>
<tr>
<td>20–25</td>
<td>High probability</td>
</tr>
</tbody>
</table>

**Limitations of the MDQ**

Many patients with bipolar II disorder consider their hypomanic periods to be normal phases of especially productive activity and thus may fail to recognize them as episodes of abnormally expansive mood. The MDQ may fail to detect this symptom and thus may provide a false-negative screening result. Other scales are perhaps more sensitive for detecting bipolar II disorder.

Many clinicians view the occurrence of treatment-emergent hypomania/mania as being of important diagnostic value when considering bipolar I disorder. However, this event is not considered in either the MDQ. A family history of bipolar disorder is frequently lacking because of the considerable underdiagnosis of the disorder. Instead, there may be a family history of depression, anxiety, alcohol and/or substance abuse or antisocial behavior.

**Detecting Bipolar II**

Although bipolar II disorder is generally viewed as a mild form of manic–depressive illness, the frequency of episodes, comorbidity rates, functional impairment and suicidality may be even higher than in bipolar I disorder. The definition of bipolar disorder is likely to evolve further, but two important recent revisions to the diagnostic criteria relate to the duration of hypomanic episodes and the inclusion of ‘softer’ criteria. Currently, according to DSM-5, a diagnosis of hypomania requires symptoms to be present for at least 4 days. There is a strong case being made for reducing this duration even further, to avoid ignoring hypomanic episodes of shorter duration and thus mistakenly diagnosing a patient with ‘unipolar’ rather than bipolar depression. The mean modal duration of hypomania is 1–3 days.

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<td>Moderate probability</td>
</tr>
<tr>
<td>20–25</td>
<td>High probability</td>
</tr>
</tbody>
</table>

Table 3.1: Interpretation of the Bipolar Spectrum Diagnostic Scale score.
In another study led by Nassir Ghaemi, 44 patients with bipolar I disorder, three with bipolar II disorder, 21 with bipolar disorder not otherwise specified and 27 patients with unipolar major depressive disorder were administered the BSDS.[7] The overall sensitivity of the BSDS for diagnosing bipolar disorder was 0.76, at 0.75 for bipolar I disorder and 0.79 for bipolar II disorder/bipolar disorder not otherwise specified.[7] The overall specificity was 0.85.[21] While lowering the cutoff score from 13 to 12 had minimal effect on the sensitivity of the BSDS, reducing it to 0.75 from 0.76, there was a large decrease in specificity, down to 0.85 from 0.93.[7]

Patients identified with probable or possible bipolar disorder should undergo a comprehensive diagnostic evaluation; for example, using a recognized diagnostic system such as the Structured Clinical Interview for DSM (SCID),[8] and obtaining a collateral history from a close friend or family member.

Bipolar Spectrum Diagnostic Scale

Rater: ..............................................................................................................................................
Date: ..................................................................

Patient’s personal details
Name: ............................................................................................................................................
Age: ..........................     Gender: M / F

Instructions: Please read through the entire passage below before filling in any blanks.

1. Some individuals notice that their mood and/or energy levels shift drastically from time to time
2. These individuals notice that, at times, their mood and/or energy level is very low, and at other times, very high
3. During their ‘low’ phases, these individuals often feel a lack of energy, need to stay in bed or get extra sleep, and little or no motivation to do things they need to do
4. They often put on weight during these phases
5. During their low phases these individuals often feel ‘blue’, sad all the time or depressed
6. Sometimes during these low phases, they feel hopeless or even suicidal
7. Their ability to function at work or socially is impaired
8. Typically, these low phases last for a few weeks, but sometimes they last only a few days
9. Individuals with this type of pattern may experience a period of ‘normal’ mood in between mood swings, during which their mood and energy levels feel ‘right’ and their ability to function is not disturbed
10. They may then notice a marked shift or ‘switch’ in the way they feel
11. Their energy increases above what is normal for them, and they often get many things done they would not ordinarily be able to do
12. Sometimes, during these ‘high’ periods, these individuals feel as if they have too much energy or feel ‘hyper’
13. Some individuals, during these high periods, may feel irritable, ‘on edge’ or aggressive
14. Some individuals, during these high periods, take on too many activities at once
15. During these high periods, some individuals may spend money in ways that cause them trouble.

16. They may be more talkative, outgoing or sexual during these periods.

17. Sometimes, their behavior during these high periods seems strange or annoying to others.

18. Sometimes, these individuals get into difficulty with coworkers or the police during these high periods.

19. Sometimes, they increase their alcohol or nonprescription drug use during these periods.

Now that you have read this passage, please tick one of the following four boxes:

☐ This story fits me very well, or almost perfectly
☐ This story fits me fairly well
☐ This story fits me to some degree, but not in most respects
☐ This story doesn’t really describe me at all

Now please go back and put a tick after each sentence (numbered 1–19 above) that definitely describes you.

Scoring:
Each sentence ticked is worth one point. Then, to this score add the following (depending upon which of the above four boxes you ticked):

☐ Add 6 points if you ticked ‘fits me very well or almost perfectly’
☐ Add 4 points if you ticked ‘fits me fairly well’
☐ Add 2 points if you ticked ‘fits me to some degree, but not in most respects’
☐ Add 0 points if you ticked ‘doesn’t really describe me at all’

Your total score

Likelihood of bipolar disorder:

0–6: Highly unlikely
7–12: Low probability
13–19: Moderate probability
20–25: High probability

Optimum threshold for positive diagnosis: score of 13 or above.

References


Up to 60% of bipolar patients initially present with depression,\textsuperscript{[1]} and the majority of bipolar patients will experience a major depressive episode at some stage in their lives. Depressive symptoms have the greatest negative impact on the lives of patients with bipolar disease.\textsuperscript{[2,3]} If depression is suspected, the use of rating scales can aid the diagnosis (by ensuring that all key symptoms are addressed), quantify the severity of depression and assist in monitoring the response to treatment. Their use also optimizes a consistent therapeutic approach in successive evaluations.

In the past, the evaluation of depression has received much more attention than that of mania and there is broad clinical experience in the use of depression rating scales. The characteristics of three of the most commonly used scales are discussed below, although much of the experience comes from their use in unipolar depression.

**ASSESSMENT OF DEPRESSION IN BIPOLAR DISORDER**

### Beck Depression Inventory

The Beck Depression Inventory (BDI)\textsuperscript{[4]} is one of the oldest and has become the most widely used depression-rating scale since its introduction in 1961. It has been used extensively in clinical trials. It was originally developed to assist the evaluation of depression in psychotherapy patients\textsuperscript{[5]} and not surprisingly, there is therefore an emphasis on cognitive symptoms (33% of its variance is directed to cognitive symptoms, but only 14% to mood and/or anhedonia).\textsuperscript{[6]}

The BDI is a 21-item self-administered scale that takes about 10 minutes to complete. It can be used as a screening tool and has been shown to discriminate effectively
between depressed and nondepressed individuals. It is useful for monitoring response
to treatment, but is less effective at gauging the severity of a depressive episode.[7] It
has been used scarcely in bipolar research. The inventory covers a range of somatic,
cognitive, affective and behavioral symptoms associated with depression. Each item
consists of four statements that describe a particular symptom, increasing in severity
with each subsequent statement. The patient is instructed to read each group of
statements and identify the single statement that best describes the way they have felt
during the past week. Each item is rated on a scale of 0 (absent/normal) to 3 (most
severe), giving a maximum score of 63. Scores of 18 or greater are considered to be
indicative of significant depression (Table 4.1).

Montgomery and Åsberg Depression Rating Scale
The Montgomery and Åsberg Depression Rating Scale (MADRS)[9] is a 10-item depression
rating scale, administered by a trained interviewer, which takes about 15–20 minutes to
complete. It was originally designed to be sensitive to change so that it could be used in
studies of treatments for depression. As a result, it has been used widely in clinical trials
of antidepressant medication for quantitative evaluation and assessment of changes in
symptoms. Its ease of use and good reliability enable nursing staff as well as
physicians to use the scale. Specific guidelines on the use of the scale optimize interrater
reliability. It has been translated into a variety of languages.

The ten items of the scale are:

■ apparent sadness;
■ reported sadness;
■ inner tension;
■ reduced sleep;
■ reduced appetite;
■ concentration difficulties;
■ lassitude;
■ inability to feel;
■ pessimistic thoughts; and
■ suicidal thoughts.

There is a relative lack of emphasis on somatic symptoms compared with other depression
rating scales, making it particularly useful for the assessment of depression in people
with physical illnesses. Each item is rated on a seven-point scale (scores of 0–6). Anchor
points are provided for scores of 0, 2, 4 and 6. The maximum total score is 60. Various
cut-off scores have been suggested[10] but the most recent are presented in
Table 4.2.[11]

To examine the ability of the BDI to measure self-reported depression in bipolar I
disorder patients, 120 outpatients, of whom one-third had recently experienced manic,
mixed, or depressive episodes, were administered the questionnaire.[8] As expected,
patients with depressed episodes had significantly higher BDI scores than those with
mixed episodes, who in turn had significantly higher scores than patients with manic
episodes, at average scores of 34.1, 25.9, and 11.7, respectively.[8] The questionnaire also
demonstrated good to excellent internal consistency.[8]

Table 4.1
Suggested scoring system for Beck Depression Inventory.

<table>
<thead>
<tr>
<th>Score</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–8</td>
<td>No depression/recovered</td>
</tr>
<tr>
<td>9–17</td>
<td>Mild depression</td>
</tr>
<tr>
<td>18–34</td>
<td>Moderate depression</td>
</tr>
<tr>
<td>≥35</td>
<td>Severe depression</td>
</tr>
</tbody>
</table>

Hamilton Depression Scale
The Hamilton Depression Scale (HAM-D) has been described as the gold standard of
observer-completed depression rating scales.[11] Similar to the MADRS scale, the HAM-D
is a semi-structured interview; however, the latter has more emphasis on the patient
report than the direct observations of the interviewer. Additional information from
nursing staff, family, or friends can also be taken into account. It takes approximately
30 minutes to complete and should be administered by a trained interviewer.

Table 4.2
Suggested scoring system for the Montgomery and Åsberg Depression Rating Scale

<table>
<thead>
<tr>
<th>Score</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–10</td>
<td>These ups and downs are considered normal</td>
</tr>
<tr>
<td>11–16</td>
<td>Mild mood disturbance</td>
</tr>
<tr>
<td>17–20</td>
<td>Borderline clinical depression</td>
</tr>
<tr>
<td>21–30</td>
<td>Moderate depression</td>
</tr>
<tr>
<td>31–40</td>
<td>Severe depression</td>
</tr>
<tr>
<td>&gt;40</td>
<td>Extreme depression</td>
</tr>
</tbody>
</table>
ASSESSMENT OF MANIA IN BIPOLAR DISORDER

If mania or hypomania is present (or suspected), the use of the mania rating scales can assist in both confirming the diagnosis and quantifying the severity of the condition. Another important use of these rating scales is to monitor the patient’s response to therapeutic interventions.

The chief advantage of the Young Mania Rating Scale (YMRS) is that it has been used extensively in clinical trials and it is therefore likely to remain the gold standard scale for rating mania for the foreseeable future. However, further study is required to translate changes in ratings into clinically meaningful effects. In addition, the relative weighting attached to individual scale items needs further evaluation.

Clinician-Administered Rating Scale for Mania

The Clinician-Administered Rating Scale for Mania (CARS-M) has several uses:

■ to assess the severity of a manic episode, including psychotic symptoms;
■ to assist diagnosis by identifying the presence of manic symptoms (individual items correspond to DSM-IV diagnostic criteria for mania); and
■ to assess response to antimanic treatment in clinical trials.

The CARS-M is a 15-item scale. The time period for assessing symptoms is usually over the previous 7 days, although this may be shortened for clinical research.

CHAPTER FOUR
CONCISE REFERENCE: DIAGNOSING BIPOLAR DISORDER

References


CHAPTER FIVE
ASSESSMENT OF MANIA IN BIPOLAR DISORDER

Clinician-Administered Rating Scale for Mania

The Clinician-Administered Rating Scale for Mania (CARS-M) has several uses:

■ to assess the severity of a manic episode, including psychotic symptoms;
■ to assist diagnosis by identifying the presence of manic symptoms (individual items correspond to DSM-IV diagnostic criteria for mania); and
■ to assess response to antimanic treatment in clinical trials.

The CARS-M is a 15-item scale. The time period for assessing symptoms is usually over the previous 7 days, although this may be shortened for clinical research.
The major drawbacks of the scale are that:
- it assesses only manic symptoms (there are no items assessing depression);
- it may be difficult to administer in patients who are highly thought disordered; and
- it may not be as sensitive for mild forms of mania, such as hypomania.

The YMRS is an 11-item clinician-administered rating scale used to assess the severity of mania for either clinical or research purposes. The interviewer explores each of the scale items with the patient and the patient is asked to base his/her answers on their experiences during the previous 48 hours. The scale is scored by the interviewer based on the subjective reports of the patient, coupled with the interviewer's own observations of the patient's behavior during the interview. The objective observations are afforded greater weight than the patient self-report. The scale takes about 15–30 minutes to complete. Each item has operationally defined anchor points and is usually scored on a scale of 0–4. However, four of the items (irritability, speech, content and disruptive–aggressive behavior) are given twice the weight of the other seven in an attempt to compensate for poor cooperation from severely ill patients.

The minimum score is 0 and the maximum is 60. In mania trials, scores of 20 or greater are commonly required for inclusion. Following treatment, patients scoring 12 or less are considered to be in remission,[5] but 12 has also been used as a threshold for hypomania and the absence of hypomania should not be considered the same as clinical remission. In fact, more restrictive definitions of remission, such as scoring 7 or less, have also been used in several studies.[6,7] Other definitions of response include a decrease from baseline YMRS score of 33% or 50%.

The scale demonstrates good interrater reliability. In the original validation study, there was a high correlation between the scores of two independent clinicians on both the total score (0.93) and across all diagnostic categories (schizophrenia, schizoaffective disorder, bipolar disorder and major depression). It has good internal validity and test–retest reliability (0.93). Additional benefits include the standardized interview format and guidelines describing its use, scoring and administration.

The psychotic/disorganization subscale is derived by summing items 11–15. Combining both subscale scores gives a global measure of 'mania with psychotic features,' but only the mania subscale score should be used to provide an overall rating of mania. Use of two subscales permits the separate assessment of manic and psychotic symptoms, which may respond differently to treatment.

The CARS-M takes approximately 15–30 minutes to administer. Raters are encouraged to receive training in the use of the scale prior to using it. The tool has been translated into Spanish and Portuguese.

The CARS-M represents an improvement over previous scales in that the norm was based on a much larger patient sample (n=96) and across all major diagnostic categories (schizophrenia, schizoaffective disorder, bipolar disorder and major depression). It has good internal validity and test–retest reliability (0.93). Additional benefits include the standardized interview format and guidelines describing its use, scoring and administration.

Young Mania Rating Scale

The YMRS is a reliable and valid rating scale, and one of the most widely used assessment instruments in clinical trials of antimanic agents.
References


ASSESSMENT OF HYPOMANIA

Hypomania may affect up to 50% of depressed patients.[2] However, it is frequently underdiagnosed in clinical practice, as there is a relative overdiagnosis of major depressive disorder at the expense of bipolar II disorder. It has been estimated that the correct diagnosis (and appropriate treatment) of patients with bipolar II disorder may be delayed by as many as 8–10 years.[2,3]

All depressed patients should be screened for hypomania. Hypomania may occur as a single episode or as a continuous fluctuating state. The current theoretical perspective is that hypomania exists on a continuum from normal highs to mania.[4,5] The Hypomania Checklist (HCL) is based on this dimensional view. The instrument substantially reduces the proportion of false negatives arising from the Structured Clinical Interview for DSM-IV (SCID) interview.[6,7] For example, a French version of the HCL increased the detection rate of bipolar II disorder from 22% with the SCID to 40%.[6]

The HCL has recently been adapted into a 32-item self-administered questionnaire (HCL-32) to help identify the hypomanic component of depressive episodes and increase the detection rate of both bipolar II disorder and minor bipolar disorders (ie, hypomania accompanying dysthymia, minor depression or brief recurrent depression).[7]

Hypomania Checklist

The HCL-32 helps identify patients with bipolar II disorder who might otherwise be classified as suffering from a major depressive episode. It may also be useful in the identification of patients with minor bipolar disorders (eg, hypomanic symptoms in the presence of dysthymia, minor depression or brief recurrent depression).
minor depression or recurrent brief depression). Because the HCL is self-administered by the patient, it has distinct advantages over lengthy structured interviews such as the SCID, and thus represents a useful tool for the busy clinician.

The HCL-32 comprises nine questions that assess:

- current mood state;
- usual mood state in comparison to others; and
- the characteristics of any ‘high’ periods including symptomatology, frequency, duration and social impact.

The questionnaire can usually be completed in 5–10 minutes.

Screening instruments require a higher sensitivity than specificity. The converse is true for diagnostic instruments. In a sample of outpatients with affective disorders, a cut-off score of 14 positive answers on the HCL-32 was associated with a sensitivity (true bipolar) of 80% and a specificity (true non-bipolar) of 51% for both bipolar I and bipolar II disorders.[9]

The evaluation of the HCL is ongoing in multinational studies, but analyses consistently identify two factors – an ‘advantageous’ factor and a ‘harmful’ factor. The advantageous factor includes such symptoms as overactivity, elated mood and improved thinking, whereas the harmful factor includes risk-taking behavior, anger, irritability and flight of ideas. Similar factor structures were found in analyses of earlier versions of the HCL[9] and the MDQ,[11] and also in a study of bipolar II patients who have remitted.[12]

The self-assessment of hypomanic symptoms on the HCL-32 is not influenced by mood state.[9] Therefore, accurate self-reporting of hypomania appears to be feasible even in the presence of depression.

---

**HCL-32 Questionnaire**

**Rater:**

Date:

**Patient’s personal details**

Name: ____________________________

Age: __________ Gender: M / F

**Energy, activity and mood:**

1. First of all, how are you feeling today compared with your usual state:
   (Please mark only one of the following)
   - Much worse than usual
   - A little better than usual
   - Worse than usual
   - Better than usual
   - A little worse than usual
   - Much better than usual
   - Neither better nor worse than usual

2. How are you usually compared with other people?

   Independently of how you feel today, please tell us how you are normally compared with other people, by marking which of the following statements describes you best.

   (Please mark only one of the following)
   - Compared to other people my level of activity, energy and mood is always rather stable and even
   - Compared to other people my level of activity, energy and mood is generally lower
   - Compared to other people my level of activity, energy and mood is generally higher
   - Compared to other people my level of activity, energy and mood repeatedly shows periods of ups and downs

3. Please try to remember a period when you were in a ‘high’ state. How did you feel then? Please answer all these statements independently of your present condition.

   **In such a state:**
   - YES
   - NO

   1. I need less sleep
   2. I feel more energetic and more active
   3. I am more self-confident
   4. I enjoy my work more
   5. I am more sociable (make more phone calls, go out more)
   6. I want to travel and do travel more
   7. I tend to drive faster or take more risks when driving
   8. I spend more/too much money
   9. I take more risks in my daily life (in my work and/or other activities)

Continued overleaf
References
