Concise Reference

Diagnosing Bipolar Disorder

Eduard Vieta

Derived from: *Managing Bipolar Disorder in Clinical Practice, Third Edition* and *Assessment Scales in Bipolar Disorder, Second Edition*

Springer Healthcare Education

Published by Springer Healthcare Ltd, 236 Gray's Inn Road, London, WC1X 8HB, UK.

www.springerhealthcare.com

British Library Cataloguing-in-Publication Data.

A catalogue record for this book is available from the British Library.

ISBN 978-1-910315-19-4

Extracted from *Managing Bipolar Disorder in Clinical Practice, 3rd Edition*
ISBN 978-1-908517-94-4
and
Guide to Assessment Scales in Bipolar Disorder, 2nd Edition
ISBN 978-1-85873-442-2

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Diagnosing Bipolar Disorder

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

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CONTENTS

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)[1,2] and the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (5th edition; DSM-5).[3]

ICD-10 definition

The ICD-10 defines bipolar affective disorder as follows:[1,2] 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.

DSM-5 definition

According to the DSM-5, bipolar disorder is defined as the occurrence of even a single period of mood elevation not attributable to substance abuse or a general medical condition.[3] The definition does not include age of onset or course of illness as diagnostic criteria.

The DSM-5 includes four categories in the bipolar spectrum that reflect the types of episodes that have occurred over an individual's lifetime:

1. **Bipolar disorder type I:** at least one manic or mixed episode; major depressive episodes (MDEs) typical but not required.
2. **Bipolar disorder type II:** at least one hypomanic episode and at least one MDE; no manic or mixed episodes.
3. **Cyclothymic disorder:** at least 2 years of depressive and hypomanic symptoms; no major depression or mania.
4. **Other unspecified bipolar and related disorder:** symptoms characteristic of a bipolar and related disorder but do not fit full criteria for bipolar I, bipolar II, or cyclothymia

DSM-5 includes the following categories for defining the current episode:

- manic;
- hypomanic;
- major depressive; and
- unspecified

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 agitations). Moreover, delusions can be 'mood congruent' (eg, grandiosity) or 'mood incongruent' (eg, persecutory, strange delusions).

Symptom	Occurrence (%)
Mood symptoms	
Irritability	80
Euphoria	71
Depression	72
Lability	69
Expansiveness	60
Cognitive symptoms	
Grandiosity	78
Flight of ideas, racing thoughts	71
Distractibility, poor concentration	71
Confusion	25
Psychotic symptoms	
Any delusion	48
Grandiosity	47
Persecutory paranoid	28
Passivity	15
Any hallucinations	15
Auditory hallucinations	18
Visual hallucinations	10
Olfactory hallucinations	17
History of psychotic symptoms	58
Thought disorder	19
First rank symptoms (Schneider)	18
Activity and behavior during mania	
Hyperactivity	87
Decreased sleep	81
Violent assaultive behavior	49
Rapid pressured speech	98
Hyperverbosity	89
Nudity, sexual exposure	29
Hypersexuality	57
Extravagance	55
Religiosity	39
Head decoration	34
Regression (pronounced)	28
Catatonia	22
Fecal incontinence (smearing)	13

Table 1.1

Manic episodes: mean rate of symptom occurrence.

Adapted from Goodwin and Jamison.[4]

Hypomania

Hypomania is an attenuated form of mania that by definition is not associated with psychosis or delusions. It refers to a clearly abnormal mood state with mild-to-moderate symptoms of mania that may last for a few days or for many months. The key distinctions from mania are that hypomania can be diagnosed after 4 consecutive days and, although the disorder is associated with an unequivocal change in functioning, there is no marked impairment.[3]

The limits of hypomania are quite vague and it may be difficult to distinguish hypomania from the person's usual behavior; this is often the case with hyperthymic personality. Consequently, hypomania is often undiagnosed. For some patients, hypomania is a pleasant state of good humor and high productivity. For most people, however, hypomanic symptoms, even lasting under 4 days, can be problematic. Things said or done during a hypomanic episode often have negative long-term consequences. Hypomania may also be a prelude to a full manic episode or a severe depression.

Depression

The term 'depression' is commonly applied to non-clinical emotional states as well as being used to designate a range of dysphoric states, including those meeting criteria for MDEs. Patients with MDEs are characterized by a loss of ability to experience pleasure in activities that are usually fun or exciting, rather than the degree to which they feel sad. The DSM-5 criteria for MDEs require the presence of five symptoms – including depressed mood or decreased interest – for most of the day nearly every day for a period of 2 weeks or longer.

Table 1.2

Depression episode symptoms in bipolar disorder.

The signs and symptoms of depression:
Lasting sad, anxious, or empty mood
Feelings of hopelessness or pessimism
Feelings of guilt, worthlessness, or helplessness
Loss of interest or pleasure in activities once enjoyed, including sex
Decreased energy, a feeling of fatigue and/or being slowed down
Restlessness or irritability
Sleeping too much, or unable to sleep
Change in appetite and/or unintended weight loss or gain
Chronic pain or other persistent bodily symptoms not caused by physical illness or injury
Thoughts of death or suicide, or suicide attempts

Mixed

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.[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.[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.[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.[8]

Course of illness

Bipolar disorder is generally an episodic, lifelong illness with a very variable course. The first episode 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.[9–12] 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).[13] If untreated, a patient with bipolar disorder may experience more than 10 episodes during their lifetime.[7]

Most individuals, over the long term, report fewer manic then 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.[7] 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.[14] 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.[15] Patients with bipolar disorder in remission are often still seriously disabled in their occupational functioning, interpersonal relationships, cognitive performance, autonomy, and finances.[16] Bipolar disorder also greatly increases healthcare utilization and the need for welfare and disability benefits.[17]

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.[18] For example, individuals with bipolar disorder frequently exhibit alcohol or substance abuse,[19,20] which may magnify 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.

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

Table 1.3

Comorbid medical conditions in 1379 outpatients with bipolar I disorder.

Reproduced with permission from Beyer et al.[21]

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.[23] Psychosocial deficits after repeated episodes include lower income and educational or job status versus premorbid levels of impaired social functioning and marital status.[24]

Bipolar disorder proves fatal in a high proportion of patients from complications of risk-taking behavior, comorbid medical illnesses, and suicide.[25]

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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.[6] 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**.[6,7]

Some patients may exhibit significant evidence of mood lability and affective symptoms but fail to meet duration criteria for bipolar II 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

Table 2.1

Clinical differences between bipolar I and bipolar II disorder.

Adapted from Suppes et al [7].

Clinical feature	Bipolar I	Bipolar II
Symptom profile	More severe symptoms Hospitalization due to mania	Less severe acute symptoms Depressive symptoms likely to predominate hospitalization due to depression
Clinical course	More likely to experience hypomania	More chronic course with more episodes of longer duration
Comorbidity	More comorbidities than the general population	More comobordities than the general population
Switching frequency	May be less frequent than bipolar II	May be more frequent than bipolar I

without intercurrent depressive symptoms, manic or mixed episodes superimposed on delusional or psychotic disorder, and bipolar disorder of uncertain etiology (ie, unable to determine if primary, substance induced, or related to a medical condition).

Cyclothymic disorder may be diagnosed in patients who have never experienced a manic, mixed, or major depressive episode but who experience numerous periods of depressive symptoms and numerous periods of hypomanic symptoms for at least 2 years (1 year in children), with no asymptomatic period lasting longer than 2 months. In addition to providing definitions of bipolar disorder, DSM-5 also includes specifiers describing the course of recurrent episodes, such as seasonal pattern, longitudinal course (with or without full interepisode recovery), and rapid cycling.

Mania

For at least one week, a distinct period of abnormally and persistently elevated, expansive, or irritable mood (or any duration if hospitalization is necessary).[3] At least three of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree:

- inflated self-esteem or grandiosity;
- decreased need for sleep;
- more talkative than usual or pressure to keep talking;
- flight of ideas or subjective experience that thoughts are racing;
- distractibility;
- increase in goal-directed activity or psychomotor agitation; and
- excessive involvement in pleasurable activities that have a high potential for painful consequences.

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 has 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 adolescences);
- 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.

Manic, hypomanic, or depressive episode, with mixed features

The patient has had at least one authenticated hypomanic, manic, depressive, or mixed affective episode in the past, and currently exhibits either a mixture or a rapid alteration of manic and depressive symptoms.

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:[10]

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.

Symptoms may lead to moderate, but not severe, disruption of work or result in social rejection. The disturbances of mood and behavior are not accompanied by hallucinations or delusions.

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 underdiagnosis

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.[6] 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.[10] 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.[11]

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.[6] Another factor is that many patients with hypomania regard their symptoms as normal or desirable, and therefore underreport them.[13] 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.[14]

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**.[7] 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.

Unipolar depression	Bipolar depression
Typically emerges after the age of 25 years	Typically emerges before the age of 25 years Episodes may be abrupt in onset (hours or days)
May be preceded by an extended period of gradually worsening symptoms	Often periodic or seasonal Treatment-emergent mania/hypomania during antidepressant monotherapy may be suggestive of bipolarity
No history of mania or hypomania	Highly heritable; bipolar disorder often runs in families, and a thorough family history is a vital diagnostic step A history of mania, hypomania, or increased energy and decreased need for sleep

Table 2.2

Clinical features that may distinguish between major depressive disorder (unipolar depression) and bipolar depression.

Reproduced with permission from Suppes et al.[7]

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

Table 2.3

Clinical features that may suggest bipolarity in patients presenting with depressive symptoms.

Adapted with permission from Suppes et al.[7]

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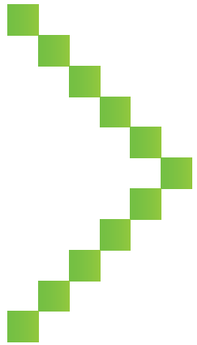
DETECTION OF BIPOLAR I AND II

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.

Mood Disorder Questionnaire

The MDQ is a screening instrument for bipolar disorder.[1] It does not distinguish between the different types of bipolar disorder, but is probably most sensitive at detecting bipolar I disorder. It may have particular clinical utility in primary care where it can aid the busy clinician in identifying those patients at highest risk of having bipolar disorder. Patients who screen positive on the MDQ should then receive a complete clinical assessment for bipolar spectrum disorder. The MDQ can be completed by the patient or clinical staff in under 5 minutes.

There are three sections:

- a symptom checklist;
- a question asking whether any symptoms experienced occurred during the same period of time; and
- an evaluation of the functional impairment associated with these symptoms.

The symptom checklist consists of 13 questions to be answered by a 'yes' or 'no', which are derived from DSM-IV criteria for mania and hypomania. The MDQ screens for a lifetime history of manic or hypomanic symptoms.

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.[2]

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.[3] 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.[4] 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[5] and then further revised and field tested by Drs Nassir Ghaemi and Chris Miller[6] 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**.

Score	Likelihood of bipolar disorder
0–6	Highly unlikely
7–12	Low probability
13–19	Moderate probability
20–25	High probability

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 specific 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, a 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 periods ☐
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'	6
Add 4 points if you ticked 'fits me fairly well'	4
Add 2 points if you ticked 'fits me to some degree, but not in most respects'	2
Add 0 points if you ticked 'doesn't really describe me at all'	0
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.

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ASSESSMENT OF DEPRESSION IN BIPOLAR DISORDER

Up to 60% of bipolar patients initially present with depression,[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.[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.

Beck Depression Inventory

The Beck Depression Inventory (BDI)[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[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).[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 scantly 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**).

Table 4.1

Suggested scoring system for Beck Depression Inventory.

Score	Comment
1–10	These ups and downs are considered normal
11–16	Mild mood disturbance
17–20	Borderline clinical depression
21–30	Moderate depression
31–40	Severe depression
>40	Extreme depression

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]

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 interrater 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]

Table 4.2

Suggested scoring system for the Montgomery and Åsberg Depression Rating Scale

Score	Comment
0–8	No depression/recovered
9–17	Mild depression
18–34	Moderate depression
≥35	Severe depression

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.

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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.[3]

Clinician-Administered Rating Scale for Mania

The Clinician-Administered Rating Scale for Mania (CARS-M)[4] 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,

if necessary. Most items are scored from 0 (absent) to 5. It contains two subscales, the mania subscale and the psychotic/disorganization subscale, each of which should be scored separately. The mania subscale score is derived by summing the scores for items 1–10. The severity of mania can be gauged using the cut-off limits shown in **Table 5.1**.

Table 5.1

Suggested scoring system for CARS-M.

Score	Comment
0–7	None or questionable mania
8–15	Mild mania
16–25	Moderate mania
≥26	Severe mania

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[4] is a reliable and valid rating scale, and one of the most widely used assessment instruments in clinical trials of antimanic agents.

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 the individual item scores (0.66–0.92).[8] The total score also correlated highly with an independent global rating, with the scores on two other mania rating scales administered at the same time, and with the length of subsequent hospital stay for each patient. In addition, the scale was able to distinguish levels of severity based on global ratings and revealed treatment effects. It is this sensitivity to change that makes the YMRS a suitable scale for use in clinical trials in the treatment of mania.

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ASSESSMENT OF HYPOMANIA

Hypomania may affect up to 50% of depressed patients.[1] 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%.[8]

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).[6]

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 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 bipolars) of 80% and a specificity (true non-bipolars) 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[10] 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
- ☐ Worse than usual
- ☐ A little worse than usual
- ☐ Neither better nor worse than usual
- ☐ A little better than usual
- ☐ Better than usual
- ☐ Much better 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.

Compared to other people my level of activity, energy and mood…
(Please mark only ONE of the following)

- ☐ is always rather stable and even
- ☐ is generally higher
- ☐ is generally lower
- ☐ 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

3. In such a state:

		YES	NO
10.	I am physically more active (sport, etc)	☐	☐
11.	I plan more activities or projects	☐	☐
12.	I have more ideas, I am more creative	☐	☐
13.	I am less shy or inhibited	☐	☐
14.	I wear more colourful and more extravagant clothes/make-up	☐	☐
15.	I want to meet or actually do meet more people	☐	☐
16.	I am more interested in sex and/or have increased sexual desire	☐	☐
17.	I am more flirtatious and/or am sexually more active	☐	☐
18.	I talk more	☐	☐
19.	I think faster	☐	☐
20.	I make more jokes or puns when I am talking	☐	☐
21.	I am more easily distracted	☐	☐
22.	I engage in lots of new things	☐	☐
23.	My thoughts jump from topic to topic	☐	☐
24.	I do things more quickly and/or more easily	☐	☐
25.	I am more impatient and/or get irritable more easily	☐	☐
26.	I can be exhausting or irritating for others	☐	☐
27.	I get into more quarrels	☐	☐
28.	My mood is higher, more optimistic	☐	☐
29.	I drink more coffee	☐	☐
30.	I smoke more cigarettes	☐	☐
31.	I drink more alcohol	☐	☐
32.	I take more drugs (sedatives, anxiolytics, stimulants, etc)	☐	☐

4. Did the questions above, which characterize a 'high', describe how you are…
(Please mark only ONE of the following)

☐ sometimes? ⇨ **(if you mark this box, please answer all of questions 5 to 9)**
☐ most of the time? ⇨ **(if you mark this box, please answer ONLY questions 5 and 6)**
☐ I never experienced such a 'high' ⇨ **(if you mark this box, please STOP here)**

5. Impact of your 'highs' on various aspects of your life:

	Positive & negative	Positive	Negative	No impact
Family life	☐	☐	☐	☐
Social life	☐	☐	☐	☐
Work	☐	☐	☐	☐
Leisure	☐	☐	☐	☐

6. Other people's reactions and comments to your 'highs'.

How did other people close to you react to or comment on your 'highs'?

☐ Positively (encouraging or supportive)
☐ Neutral
☐ Negatively (concerned, annoyed, irritated, critical)
☐ Positively and negatively
☐ No reactions

7. Length of your 'highs' as a rule (on average):
(Please mark only ONE of the following)

☐ 1 day
☐ 2–3 days
☐ 4–7 days
☐ A little better than usual
☐ Better than usual
☐ I can't judge/don't know

8. Have you experienced such 'highs' in the past 12 months?

☐ Yes
☐ No

9. If yes, please estimate how many days you spent in 'highs' during the last 12 months:

Taking all together: about ____ days

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Education