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Addressing Diagnostic Complexities Of Bipolar Disorder

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Key Objectives

- Review the prevalence, burden, and diagnostic challenges of bipolar disorder (BD)
- Discuss the shared clinical features and diagnostic differences between BD and other mental illnesses
- Discuss opportunities to improve the likelihood of accurately diagnosing BD

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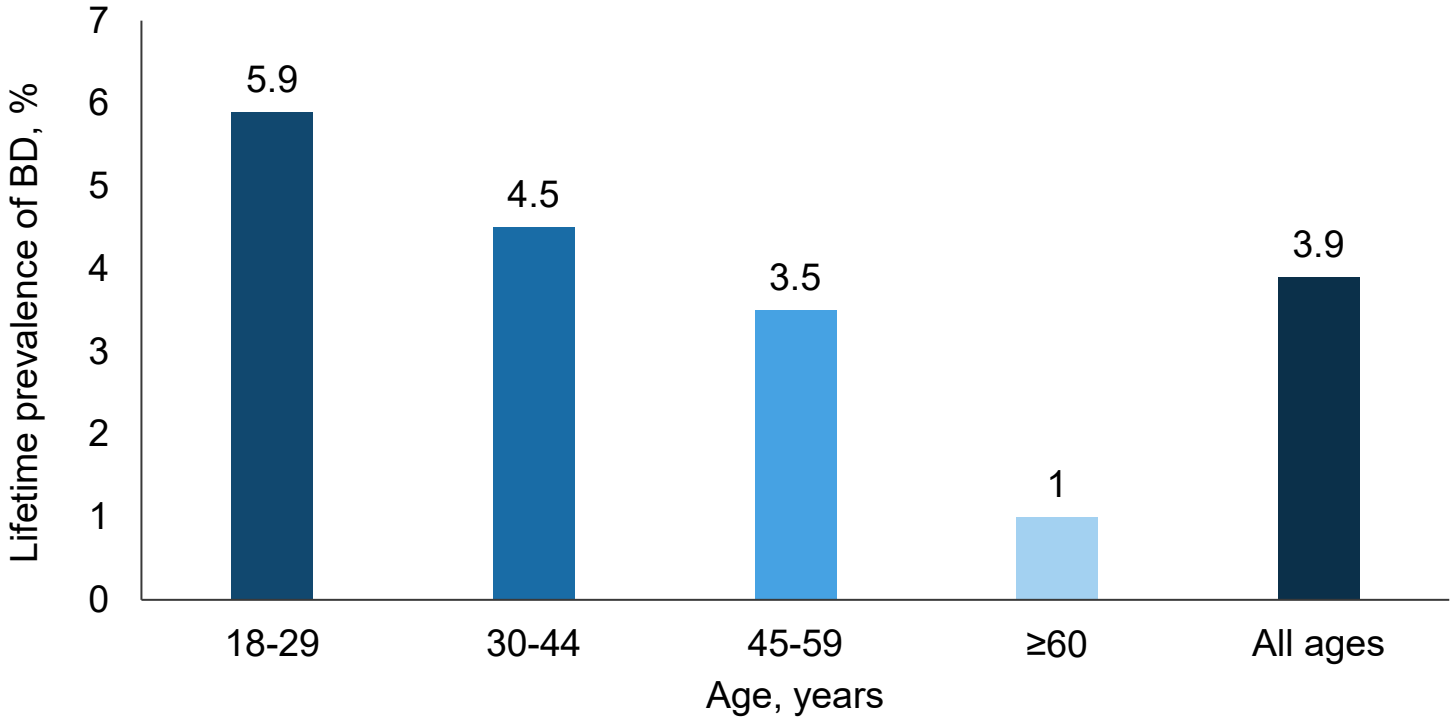
Prevalence, Burden, and Diagnostic Challenges of Bipolar Disorder

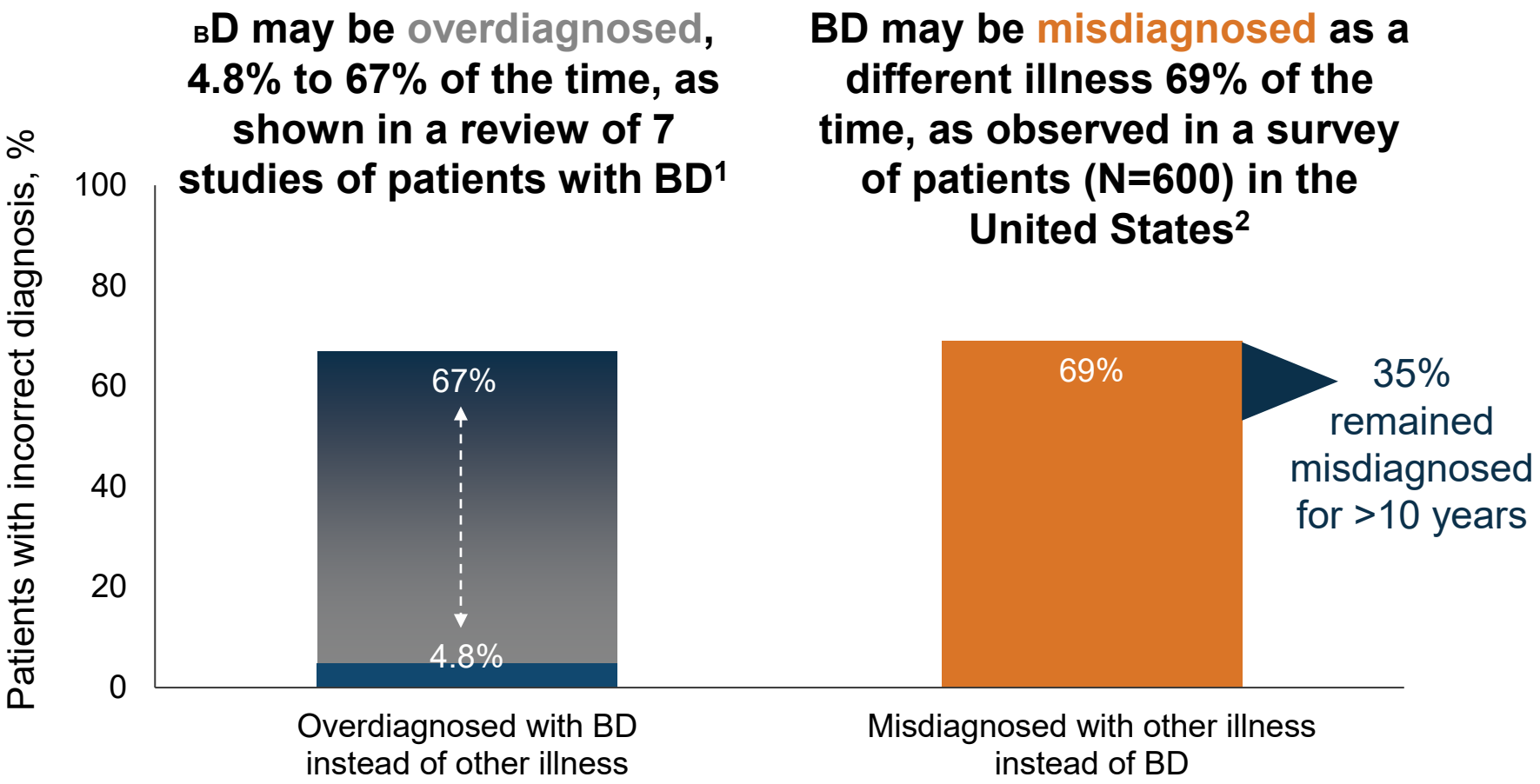
Prevalence of Bipolar Disorder

In a survey conducted in the United States between February 2001 and April 2003 (N=9282), overall lifetime prevalence of bipolar I and bipolar II disorder across all ages was 3.9% as determined by the WMH-CIDI



1. WMH-CIDI, World Health Organization Composite International Diagnostic Interview.
2. Kessler et al. *Arch Gen Psychiatry.* 2005;62:593-602.

Bipolar Disorder May Be Misdiagnosed



1. BD, bipolar disorder.
2. 1. Ghouse et al. *ScientificWorldJournal.* 2013;2013:297087. 2. Hirschfeld et al. *J Clin Psychiatry*. 2003;64:161-174.

Discussion

What do you think is a bigger problem?

A. Overdiagnosis of bipolar disorder

B. Underdiagnosis of bipolar disorder

C. There are no problems with diagnosing bipolar disorder

There Are Many Potential Consequences of Overdiagnosis or Underdiagnosis

In patients with BD, inappropriate treatment (eg, from overdiagnosis) or a lack of treatment (eg, from underdiagnosis) can lead to[1,2]

Disease progression, including

- Reduced likelihood of responding to treatment; need for more complex treatment[3]
- Behavioral issues that can further isolate the patient from support[1]
- Increased functional impairment[3]
- Alteration of disease course[1,2,4]

Side effects from drugs[1]

Increased risk of suicide[1]

1. BD, bipolar disorder.
2. 1. Culpepper. *J Fam Pract*. 2015;64(6 Suppl):S4-S9. 2. Stensland et al. *BMC Psychiatry*. 2010;10:39. 3. McIntyre. *J Fam Pract*. 2015;64(6 Suppl):S16-S23. 4. El-Mallakh et al. *J Affect Disord*. 2015;184:318-321.

Common Reasons for Over- and Underdiagnosis: Patient Perspective

Possible reasons for Overdiagnosis

- Behavioral effects of some psychoactive substances can present like mood symptoms associated with BD[1]
- Overlap between diagnostic criteria for BD and some clinical disorders[2]
- Subthreshold manic symptoms are common in adolescents[2]

Possible reasons for Underdiagnosis

- Patients may only focus on depressive symptoms with a clinician[3]
- Patients may underreport their own symptoms[3]
- Comorbidity with another psychiatric disorder (eg, borderline personality disorder) may distract from diagnosis[1,4]

1. BD, bipolar disorder.
2. 1. Ghouse et al. *ScientificWorldJournal.* 2013;2013:297087. 2. Moreno et al. *Arch Gen Psychiatry*. 2007;64:1032-1039. 3. Culpepper. *J Fam Pract*. 2015;64(6 Suppl):S4-S9. 4. Manning. *J Fam Pract*. 2015;64(6 Suppl):S10-S15.

Common Reasons for Over- and Underdiagnosis: Clinician Perspective

Physician experience may influence diagnosis[1]

- May lack general understanding of BD
- May lack experience recognizing symptoms

Disjointed health care may influence diagnosis[2]

- Overlooked symptoms or patterns
- Previous diagnosis or symptomatology lost with prior medical records

Diagnostic error or use of screening tools as diagnostics[3]

- Phenomenological similarities[3]
- False positives and negatives[3]

Certain comorbidities (eg, substance use disorder) may also complicate accurate diagnosis because drug effects can mimic BD symptoms[4,5]

1. BD, bipolar disorder.
2. 1. Culpepper. *J Fam Pract*. 2015;64(6 Suppl):S4-S9. 2. Stensland et al. *BMC Psychiatry*. 2010;10:39. 3. Zimmerman and Morgan. *Curr Psychiatry Rep*. 2013;15:422. 4. Goldberg et al. *J Clin Psychiatry*. 2008;69:1751-1757. 5. Dietch. *Psychiatr Danub*. 2015;27(Suppl 1):S188-S194.

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Shared Clinical Features and Diagnostic Differences Between Bipolar Disorder and Other Mental Illnesses

Discussion

Of the following mental illnesses, which do you find the greatest difficulty differentiating from bipolar disorder?

A. Major depressive disorder

B. ADHD

C. Borderline personality disorder

D. Schizophrenia

ADHD, attention-deficit/hyperactivity disorder.

Common Misdiagnoses

In a survey of 600 patients in the United States with bipolar disorder, many responded that they had received 1 or more prior misdiagnoses, including[1]

- Unipolar depression 60%
- Anxiety disorder 26%
- Schizophrenia 18%
- Borderline or antisocial personality disorder 17%
- Schizoaffective disorder 11%
- Substance use/dependence 14%

In a study of children with ADHD (n= 127), 43% met the criteria for bipolar disorder within 4 years[2]

In 2 studies of patients previously diagnosed with BD and in treatment for substance use/dependence (N=85 and N=21), 33% and 43%, respectively, were found to meet the diagnostic criteria for BD[3,4]

1. ADHD, attention-deficit/hyperactivity disorder; BD, bipolar disorder.
2. 1. Hirschfeld et al. *J Clin Psychiatry*. 2003;64:161-174. 2. Biederman et al. *J Am Acad Child Adolesc Psychiatry*. 1996;35:1193-1204. 3. Stewart and El-Mallakh. *Bipolar Disord*. 2007;9:646-648. 4. Goldberg et al. *J Clin Psychiatry*. 2008;69:1751-1757.

Reasons and Common Features Between Bipolar Disorder and ADHD That May Contribute to Misdiagnosis

- ADHD prevalence ranges from 1.7% to 16% in school-aged youths
- Lifetime prevalence of BD is estimated at 1.8% in children
- Prevalence of comorbid ADHD among young people with BD is estimated to be 48%

Many symptoms are nondiscriminatory, including

- Hyperactivity, impulsivity, short attention span, anxiety, obsessive-compulsive disorder, and poor frustration tolerance

Co-occurring disorders further complicate diagnosis

- >50% of children with ADHD have co-occurring conduct disorder or oppositional defiant disorder
  - Temper tantrums and aggressive behavior observed in these disorders are similar to manic or mixed-state symptoms

1. ADHD, attention-deficit/hyperactivity disorder; BD, bipolar disorder.
2. Marangoni et al. *Curr Psychiatry Rep*. 2015;17:604.

Clinical Characteristics That May Differentiate ADHD From Bipolar Disorder

Mood shifts[1]

Disease course[2]

Psychotic symptoms[1]

Sleep[2]

Locomotor activity and energy levels[2]

Precocious sexual interest[2]

Suicidal ideation[1]

1. ADHD, attention-deficit/hyperactivity disorder.
2. 1. Roman et al. *Actas Esp Psiquiatr.* 2016;44:153-156. 2. Marangoni et al. *Curr Psychiatry Rep*. 2015;17:604.

Bipolar Disorder Is Commonly Misdiagnosed as Borderline Personality Disorder

Bipolar disorder and borderline personality disorder share

- Affective instability and impulsivity
- High neuroticism (related to affective instability)
- Low conscientiousness

Determining a diagnosis may be difficult

- 12% to 23% of patients with BD II meet criteria for borderline personality disorder
- Frequent comorbidity between borderline personality disorder and mood disorders (BD and MDD); ranges from 35% to 51.5%

1. BD, bipolar disorder; BD II, bipolar II disorder; MDD, major depressive disorder.
2. Elisei et al. *Psychiatr Danub*. 2012;24(Suppl 1):S143-S146.

Clinical Characteristics That May Differentiate Bipolar Disorder From Borderline Personality Disorder

Core symptoms[1] (eg, mood)

Psychotic symptoms[1]

Harm avoidance[2]

Affective instability trigger[1]

Relationships[1]

Depressive periods[1]

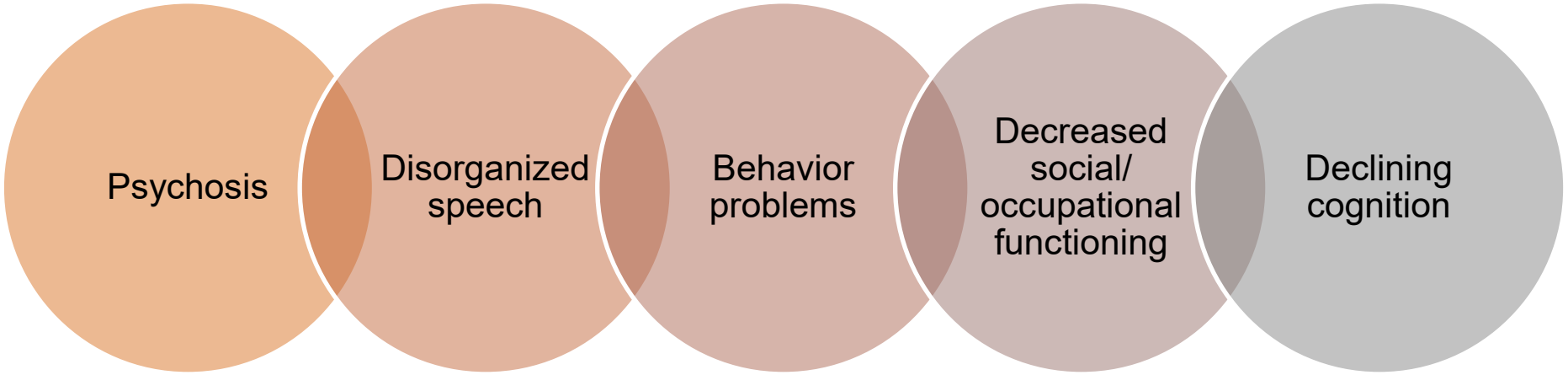
Cognitive function[1]

Childhood trauma[1]

1. 1. Roman et al. *Actas Esp Psiquiatr.* 2016;44:153-156. 2. Elisei et al. *Psychiatr Danub*. 2012;24(Suppl 1):S143-S146.

Misdiagnosis of Schizophrenia

Shared symptoms with bipolar disorder can include[1,2]



- Previous DSM criteria may have contributed to common misdiagnosis with schizophrenia[3]
  - Several studies from the 1970s and 1980s found that nearly 50% of individuals who met DSM-III or similar diagnostic criteria for mania had previously been diagnosed with schizophrenia[4]
- Newer DSM criteria acknowledging psychosis as a symptom of both disorders has reduced this misdiagnosis[3]

1. DSM, Diagnostic and Statistical Manual of Mental Disorders.
2. 1. Tandon et al. *Schizophr Res*. 2013;150:3-10. 2. Swann et al. *Prim Care Companion J Clin Psychiatry*. 2005;7:15-21. 3. Bowden. *Psychiatr Services*. 2001;52:51-55. 4. Weller et al. *J Affect Disord*. 1986;11:151-154.

Clinical Characteristics That May Differentiate Bipolar Disorder From Schizophrenia

Core symptoms[1]

Family history[2]

Cognitive function[2]

Depressive periods[1]

Disease course[2]

1. 1. Roman et al. *Actas Esp Psiquiatr.* 2016;44:153-156. 2. Tandon et al. *Schizophr Res*. 2013;150:3-10.

Physical Ailments and Drugs May Affect Mood, Which May Mimic Symptoms of Bipolar Disorder

Examples of physical ailments and drugs that may mimic BD

Mania[1]	Depression[1]	Insomnia	Mood swings
• Hyperthyroidism • Cushing's disease • L-dopa • Corticosteroids • Stimulants	• Hypothyroidism • Addison's disease • Corticosteroids • Beta blockers • Calcium channel blockers • Alpha blockers • Statins	• Chronic fatigue syndrome[1] • Sleep disorders[1] • Sleep apnea[1] • Serotonergic reuptake inhibitors[2] • Neuroleptics[2] • Amphetamines[2] • Hypnotics[2] • Anxiolytics[2]	• Adolescence[1] • Menstrual cycle changes[1] • Menopause[1] • Fetal alcohol syndrome[1] • Multiple sclerosis[1] • Parkinson's disease[1] • Frontal lobe tumors[1] • Dementia[1] • Personality changes following a head injury[1] • Seasonal affective disorder[3]

Complex mood effects can also be attributed to other pathologies such as anemia, renal failure, delirium, metabolic pathologies, frontal lobe lesions, dementia, cerebral lupus, and multiple sclerosis[1]

1. BD, bipolar disorder.
2. 1. Dietch. *Psychiatr Danub*. 2015;27(Suppl 1):S188-S194. 2. Ohayon. *Sleep Med Rev.* 2002;1;6:97-111. 3. Lam and Levitan. *J Psychiatry Neurosci.* 2000;25:469-480.

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Discussion: How Can We Improve the Diagnosis of Bipolar Disorder?

Conclusions

- Bipolar disorder shares many clinical features with other mental illnesses and may be either underdiagnosed or overdiagnosed
- Frequent misdiagnoses include major depressive disorder, attention-deficit/hyperactivity disorder, borderline personality disorder, schizophrenia, and substance use disorder
- Underdiagnosis and overdiagnosis can lead to improper treatment and deleterious effects for patients
- There are opportunities for improvement in diagnostic accuracy

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