

Going to Extremes

Bipolar Disorder

There is a tendency to romanticize bipolar disorder. Many artists, musicians and writers have suffered from its mood swings. But in truth, many lives are ruined by this disease; and without effective treatment, the illness is associated with an increased risk of suicide.¹

Bipolar disorder, also known as manic-depressive illness, is a serious brain disease that causes extreme shifts in mood, energy, and functioning. It affects approximately 2.3 million adult Americans—about 1.2 percent of the population.² Men and women are equally likely to develop this disabling illness. The disorder typically emerges in adolescence or early adulthood, but in some cases appears in childhood.³ Cycles, or episodes, of depression, mania, or “mixed” manic and depressive symptoms typically recur and may become more frequent, often disrupting work, school, family, and social life.

Depression: Symptoms include a persistent sad mood; loss of interest or pleasure in activities that were once enjoyed; significant change in appetite or body weight; difficulty sleeping or oversleeping; physical slowing or agitation; loss of energy; feelings of worthlessness or inappropriate guilt; difficulty thinking or concentrating; and recurrent thoughts of death or suicide.

Mania: Abnormally and persistently elevated (high) mood or irritability accompanied by at least three of the following symptoms: overly-inflated self-esteem; decreased need for sleep; increased talkativeness; racing thoughts; distractibility; increased goal-directed activity such as shopping; physical agitation; and excessive involvement in risky behaviors or activities.

“Mixed” state: Symptoms of mania and depression are present at the same time. The symptom picture frequently includes agitation, trouble sleeping, significant change in appetite, psychosis, and suicidal thinking. Depressed mood accompanies manic

activation. Especially early in the course of illness, the episodes may be separated by periods of wellness during which a person suffers few to no symptoms. When 4 or more episodes of illness occur within a 12-month period, the person is said to have bipolar disorder with *rapid cycling*. Bipolar disorder is often complicated by co-occurring alcohol or substance abuse.⁴

Severe depression or mania may be accompanied by symptoms of *psychosis*. These symptoms include: hallucinations (hearing, seeing, or otherwise sensing the presence of stimuli that are not there) and delusions (false personal beliefs that are not subject to reason or contradictory evidence and



are not explained by a person's cultural concepts). Psychotic symptoms associated with bipolar typically reflect the extreme mood state at the time.

Treatments

A variety of medications are used to treat bipolar disorder.⁵ But even with optimal medication treatment, many people with the illness have some residual symptoms. Certain types of psychotherapy or psycho-social interventions, in combination with medication, often can provide additional benefit. These include cognitive-behavioral therapy, interpersonal and social rhythm therapy, family therapy, and psychoeducation.^{6,7}

Lithium has long been used as a first-line treatment for bipolar disorder. Approved for the treatment of acute mania in 1970 by the U.S. Food and Drug Administration (FDA), lithium has been an effective mood-stabilizing medication for many people with bipolar disorder.

Anticonvulsant medications, particularly valproate and carbamazepine, have been used as alternatives to lithium in many cases. Valproate was FDA approved for the treatment of acute mania in 1995. Newer anticonvulsants, including lamotrigine, gabapentin, and topiramate, are being studied to determine their efficacy as mood stabilizers in bipolar disorder. Some research suggests that different combinations of lithium and anticonvulsants may be helpful.

According to studies conducted in Finland in patients with epilepsy, valproate may increase testosterone levels

in teenage girls and produce polycystic ovary syndrome in women who began taking the medication before age 20.⁸ Increased testosterone can lead to polycystic ovary syndrome with irregular or absent menses, obesity, and abnormal growth of hair. Therefore, young female patients taking valproate should be monitored carefully by a physician.

During a depressive episode, people with bipolar disorder commonly require additional treatment with antidepressant medication. Typically, lithium or anticonvulsant mood stabilizers are prescribed along with an antidepressant to protect against a switch into mania or rapid cycling. The comparative efficacy of various antidepressants in bipolar disorder is currently being studied.

In some cases, the newer, *atypical* antipsychotic drugs such as clozapine or olanzapine may help relieve severe or refractory symptoms of bipolar disorder and prevent recurrences of mania. More research is needed to establish the safety and efficacy of atypical antipsychotics as long-term treatments for this disorder.

Research Findings

More than two-thirds of people with bipolar disorder have at least one close relative with the disorder or with unipolar major depression, indicating that the disease has a heritable component.⁹ Studies seeking to identify the genetic basis of bipolar disorder indicate that susceptibility stems from multiple genes. Scientists are continuing their search for these genes using advanced genetic analytic methods and large samples of families affected by

the illness. The researchers are hopeful that identification of susceptibility genes for bipolar disorder, and the brain proteins they code for, will make it possible to develop better treatments and preventive interventions targeted at the underlying illness process.

Researchers are using advanced imaging techniques to examine brain function and structure in people with bipolar disorder.^{10,11} An important area of imaging research focuses on identifying and characterizing networks of interconnected nerve cells in the brain, interactions among which form the basis for normal and abnormal behaviors. Researchers hypothesize that abnormalities in the structure and/or function of certain brain circuits could underlie bipolar and other mood disorders. Better understanding of the neural circuits involved in regulating mood states will influence the development of new and better treatments, and will ultimately aid in diagnosis.

New Clinical Trial

NIMH has initiated a large-scale study at 20 sites across the U.S. to determine the most effective treatment strategies for people with bipolar disorder. This study, the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD), will follow patients and document their treatment outcome for 5 to 8 years. For more information, visit the Clinical Trials page of the NIMH Web site.

For More Information

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