

BIPOLAR II DISORDER

HELEN STEELE

Bipolar disorder is a mental disorder associated with extremes of behavior and mood. People with Bipolar II disorder show both symptoms of severe depression and of mild mania. While both extremes can be debilitating –

making bipolar disorder of importance and interest to psychologists – more information is becoming available on the causes of bipolar disorder and there are now more reliable methods of diagnosis and treatment.

THE SYMPTOMS AND DIAGNOSIS OF BIOPOLAR DISORDER

Bipolar Disorder is marked by extremes of mood and behavior. Bipolar II Disorder is diagnosed when the patient has had at least one Major Depressive Episode, one or more Hypomanic episodes, has never had a full Manic episode and the symptoms cannot be attributed to other causes such as schizophrenia¹.

A Major Depressive Episode may be diagnosed when a person's mood is severely depressed. The patient may feel sad or empty for much of the day, find little pleasure or interest in activities previously of interest, have increased or decreased appetite, altered sleep patterns, severe fatigue, feelings of worthlessness or excessive guilt, show an inability to concentrate or make decisions, have recurring thoughts of death or of suicide, and show psychomotor agitation or retardation. Five or more symptoms – including depressed mood or lack of interest – must have been present for at least two weeks for a diagnosis of Major Depressive Episode to be made¹. It is normal for everyone to feel 'sad' or 'blue', perhaps in times of stress, of bereavement, or while abusing drugs, but most people are not suffering a major depressive episode. Their symptoms will usually diminish in time and without intervention: someone with bipolar disorder, however, usually needs intervention to improve and without treatment, bipolar disorder can worsen².

Hypomania is a mild form of mania, lasting for less time – at least 4 days – and with less serious effects than full mania, although still with noticeable effects on both mood and behavior. The patient will show an elevated, expansive or irritated mood, noticeably different from their usual mood. For a diagnosis of Hypomania, the patient

would show three or more symptoms including overly-boosted self-esteem; little need to sleep; talkativeness and frequently a rush of words to get ideas out; flight of ideas or the feeling that thoughts are moving faster or 'racing'; being easily distracted or doing actions (shopping, sex etc) without thought for the consequences¹. Fortunately though, symptoms of hypomania are not usually serious enough to hamper functioning or to require hospitalization¹.

Clinicians cannot diagnose bipolar disorder physiologically – there are no blood tests or brain scans – but rather usually use a Structured Clinical Interview (SCID). The SCID is the gold standard³ for diagnosis, but it can be difficult to use for diagnosing hypomania and it is very time-consuming. Clinicians may also use diagnostic tests such as Clinician-Administered Rating Scale for Mania (CARS-M) and the Hamilton Depression Rating Scale (HDRS)³ as well as patient-administered tests such as the Beck Depression Inventory (BDI) and the Life Chart method³.

While friends and family can usually see the changes in the patient, the person with hypomania will frequently deny that there is anything wrong² or play down their hypomanic episodes and this may hamper diagnosis. The patient dismisses the seriousness of the hypomania which can make the patient feel great and full of energy. This can lead to patients being misdiagnosed with depression⁴ and treated accordingly. In a recent report⁴, Bowden suggests that having family members present during at least some stages of diagnosis may reduce the underreporting of hypomania and improve the chances of an accurate diagnosis.

Diagnosis is also complicated by the possibility that either the depression or the hypomania is caused by external stimuli such as bereavement, over-the-counter medicine or drug abuse, or other illnesses and disorders such as problems with the thyroid. All these must be counted out before an accurate diagnosis may be made.

Most patients with bipolar II disorder will only have a few periods of depression or hypomania in a given year

THE CAUSES OF BIOPOLAR DISORDER

The causes of Bipolar disorder are not fully known and currently can only be theorized. Current research would suggest that there is no single cause for Bipolar disorder², but rather a complex interaction of different factors, including genetics, brain chemistry and external stimuli.

Research in the last five years at the University of Michigan has shown that brain chemistry has a significant role in all types of bipolar disorder, as well as depression. Research using PET scans on patients with Bipolar I disorder found that they had up to 30% more monoamine-producing neurons than in normal people⁷. Monoamines are neurotransmitters – serotonin, norepinephrine and dopamine – that are involved in mood regulation, stress responses and cognitive functions like concentration and attention. The question remains as to why some people develop a greater density of these monoamine-producing neurons than others.

Twin studies on bipolar disorder have found that while there is a high correlation between identical twins – if one twin has bipolar disorder then there is an 80% chance the other twin will also have the disorder – there is not a 100% match^{2,5,7}. This suggests that while genetics does play an important part in the onset of bipolar disorder it is not the only factor.

TREATMENT FOR BIOPOLAR DISORDER

The current standard treatment for bipolar disorder is the prescription of mood-stabilizing drugs such as Lithium. Lithium prevents the extreme lows of depression and the highs of hypomania and has been proven effective². Among clinicians, Lithium is preferred for more

with long periods of normality in between. However, a proportion, 13-20% (Ref 5), may exhibit four or more episodes in a year. This is known as Rapid Cycling. Rapid cycling is often caused by use of anti-depressants and can cause problems with treatment, as rapidly cycling patients often respond less well to Lithium. A smaller proportion of patients suffer mild symptoms continually⁶.

Research – including twin studies and family studies – suggest a genetic problem caused by multiple genes in DNA². Research done in Edinburgh, UK reviewed studies of extended families with multiple occurrences of bipolar disorder that were able to associate regions on several chromosomes with bipolar disorder⁸. Similar research indicates that the interaction of multiple genes and the environment may be crucial⁹. Although the candidate genes have not been identified, there are multiple regions of interest (chromosomes 4p16, 12q23–q24, 16p13, 21q22, and Xq24–q26). Research is ongoing to reach more conclusive results, including the National Institute of Mental Health's Bipolar Disorder Genetics Initiative, launched in 1989¹⁰.

Another theory postulates that brain structure and brain matter could be a factor in the onset of bipolar disorder. Patients with bipolar disorder have been shown to have an increased number of lesions in the white matter of the brain, which can be seen with magnetic resonance imaging (MRI)². Other studies have shown that bipolar patients often show a smaller cerebellum and smaller temporal lobe⁵, but research is still preliminary and has to date only used small samples. Improvements in the last decade in brain imaging techniques should allow further and more successful research in the future.

types of Bipolar Disorder, including Bipolar II Disorder¹¹, although Divalproex sodium (valproate, Depakote[®]) is increasingly popular. Divalproex is an anticonvulsant, which also acts as a mood-stabilizer and can be more effective than Lithium at managing Rapid-Cycling.

Divalproex and other anti-convulsants also have less unpleasant side effects than Lithium, which increases the chance of patients remaining on the medication¹². Other anti-convulsants such as lamotrigine (Lamictal[®]), are currently being tested for efficacy in countering bipolar disorders and mania².

In the past, there was a tendency to concentrate upon traditional anti-depressants to combat bipolar II disorder. This was especially true given the tendency of patients to ignore hypomanic episodes and for their clinicians to misdiagnose bipolar disorder as depression. Although the anti-depressants might successfully treat the depression, they also increase the risk of further episodes of hypomania and rapid cycling¹². Antidepressants may be used to treat bipolar disorder when the depression is particularly severe or does not respond to the mood-stabilizing drugs alone but antidepressants should always be prescribed along with a mood-stabilizer to avoid the possibility of forcing new occurrences of mania and cycling. The most common anti-depressants prescribed to patients with bipolar II disorder are bupropion (Wellbutrin[®]), selective serotonin reuptake inhibitors such as fluoxetine (Prozac[®]), paroxetine (Paxil[®]) and sertraline (Zoloft[®]) or Venlafaxine (Effexor[®])¹¹.

Medication is not the only treatment for bipolar disorders. Psychotherapy and other psychosocial therapies can be effective². Behavioral therapy can inform and encourage patients to find coping mechanisms for stresses that may cause the swings in mood. Cognitive therapy can focus upon changing the negative or inappropriate belief patterns that may worsen the illness¹¹. Patients are also encouraged to help themselves. Mood charts are particularly useful for tracking depressive and hypomanic episodes and may warn a patient of an impending attack so they can try to counter it¹¹. Patients are encouraged to keep to a stable sleep pattern, to eat properly, to avoid drugs,

THE EPIDEMIOLOGY OF BIOPOLAR DISORDER

Bipolar disorder is far less prevalent than depression but is still a significant cause of mental illness in the US and the world. Difficulties with diagnosis,

alcohol, excess caffeine or nicotine and even some over-the-counter medicines such as cold treatments (which can bring on a hypomanic episode). Excess activity or complete inactivity is also discouraged: it is important to find a balance and try and keep to it, whatever the mood. Patients should learn methods of coping with stress and are encouraged to rely upon and confide in friends and family¹¹. Psychosocial methods of treatment are used in all forms of Bipolar disorder but have been found to be particularly effective in the treatment of Bipolar II disorder¹¹.

In severe cases of depression associated with bipolar II disorder, where anti-depressants and/or mood-stabilizers are not working to bring the mood back to within normal boundaries, Electro-convulsive therapy (ECT) can also be used. Despite the popular image of ECT as barbaric, it is effective and is considered the first alternative in severe depressive episodes should medication fail. Recent research at the University of Chicago might offer an alternative to ECT. The technique, known as transcranial magnetic stimulation, fires magnetic pulses at the brain. In early tests it has proved to be as effective as ECT with less side effects¹³.

It is important to treat all aspects of the bipolar disorder. Bipolar disorder will not go away without intervention and can get worse, with the hypomania of Bipolar II disorder becoming full mania² and ultimately possibly psychosis⁵. Untreated or misdiagnosed bipolar disorder can also lead to suicide or suicide attempts: 15–25% of such patients will attempt suicide⁵. To improve treatment of bipolar disorders, the National Institute of Mental Health has the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD), a large scale project aimed at determining the effectiveness of various treatments for bipolar disorder¹².

especially of hypomania make estimates of those suffering from Bipolar II disorder approximate at best. Figures quoted for all bipolar disorders range from 1% of the

population^{2, 12} to 2% of the population⁵ including Bipolar II disorder. Bipolar II disorder thus probably occurs in some 0.5 percent of the population, although this figure may be significantly too low due to underreporting and misdiagnosis.

Unlike depression, which occurs more in women than in men, bipolar disorders are found equally in men and women and culture or race do not seem to have an impact upon the occurrence of the disorder⁵. However, women are more likely to develop rapid cycling, possibly due to hormonal changes⁵. Children and adolescents can

CONCLUSION

Bipolar disorders are mental disorders characterized by periods of depression, mania and normality. Bipolar II disorder substitutes mania for hypomania, a milder form which rarely causes lack of function but can, with poor management, lead to the more serious form. Bipolar II disorder can be successfully diagnosed and treated with medication such as Lithium and Divalproex but problems

develop bipolar disorder, as can those over 30, but the mean age of onset is usually in the twenties⁵.

Studies have found that bipolar disorder occurs more often in families. Over 60% of patients with bipolar disorder had some family history of mental illness – not only bipolar disorder but unipolar disorders and problems with substance abuse. If more than one generation exhibits mental disorders, the probabilities increase⁵. All these issues make bipolar disorder of interest and concern to psychologists and other mental health professionals.

of misdiagnosis often mean that treatment is too late or ineffective. Improved diagnosis, better prescribing of medication and greater use of psychosocial therapy may help alleviate these problems while continued research into the genetic, biological and other reasons for this disorder may ultimately provide answers to its cause.

References

1. American Psychiatric Association. *Diagnostic and Statistical Manual for Mental Disorders, fourth edition (DSM-IV)*. Washington, DC: American Psychiatric Press, 1994.
2. National Institute of Mental Health, Factsheet on Bipolar Disorder, <http://www.nimh.nih.gov/publicat/bipolar.cfm>
3. *The Journal of Clinical Psychiatry*. <http://www.psychiatrist.com/bauer/bauerD.htm>
4. Bowden, C.L. *et al.*, Strategies to reduce misdiagnosis of bipolar depression, *Journal of Psychiatric Services*, January 2001, p. 51, as reported at <http://www.newswise.com/articles/2001/1/MISDIAG.APA.html>
5. Bowden, C.L. Update on bipolar disorder: epidemiology, etiology, diagnosis, and prognosis, *Medscape Mental Health* 2(6), 1997 as reported at <http://linkage.rockefeller.edu/wli/news/bipolar.html>
6. Hyman SE, Rudorfer MV. Depressive and bipolar mood disorders, *Scientific American; Medicine*. Vol. 3. 2000
7. Zubieta, J-K., Evidence of brain chemistry abnormalities in bipolar disorder, *American Journal of Psychiatry*, October 2000
8. Blackwood, D.H.R. *et al.* Genetic studies of bipolar affective disorder in large families, *The British Journal of Psychiatry* (2001) 178: s134-s136 <http://bjp.rcpsych.org/>
9. Craddock, N. and Jones, I., Molecular genetics of bipolar disorder, *The British Journal of Psychiatry* (2001) 178: s128-s133 <http://bjp.rcpsych.org/>
10. National Institute of Mental Health: Human Genetics Initiative <http://www-grb.nimh.nih.gov/gi.html>
11. Sachs, G.S. *et al.*, Expert Consensus Guidance Series: Medication Treatment of Bipolar Disorders 2000, *Postgraduate Medicine*, April 2000, http://www.psychguides.com/Bipolar_2000.pdf
12. National Institute of Mental Health, Bipolar Disorder Research, <http://www.nimh.nih.gov/publicat/bipolarresfact.cfm>
13. Janicak, P. http://www.nlm.nih.gov/medlineplus/news/fullstory_6014.html