

Borderline Personality Disorder

Raising questions, finding answers

Borderline personality disorder (BPD) is a serious mental illness characterized by pervasive instability in mood, inter-personal relationships, self-image, and behavior. This instability often disrupts family and work life, long-term planning, and the individual's sense of self-identity. Originally thought to be at the "border-line" of psychosis, people with BPD suffer from a disorder of emotion regulation. While less well known than schizophrenia or bipolar disorder (manic-depressive illness), BPD is more common, affecting 2 percent of adults, mostly young women.¹ There is a high rate of self-injury without suicide intent, as well as a significant rate of suicide attempts and completed suicide in severe cases.^{2,3} Patients often need extensive mental health services, and account for 20 percent of psychiatric hospitalizations.⁴ Yet, with help, many improve over time and are eventually able to lead productive lives.

Symptoms

While a person with depression or bipolar disorder typically endures the same mood for weeks, a person with BPD may experience intense bouts of anger, depression and anxiety that may last only hours, or at most a day.⁵ These may be associated with episodes of impulsive aggression, self-injury,



and drug or alcohol abuse. Distortions in cognition and sense of self can lead to frequent changes in long-term goals, career plans, jobs, friendships, gender identity, and values. Sometimes people with BPD view themselves as fundamentally bad, or unworthy. They may feel unfairly misunderstood or mistreated, bored, empty, and have little

idea who they are. Such symptoms are most acute when people with BPD feel isolated and lacking in social support, and may result in frantic efforts to avoid being alone.

People with BPD often have highly unstable patterns of social relationships. While they can develop intense but stormy attachments, their attitudes towards family, friends, and loved ones may suddenly shift from idealization (great admiration and love) to devaluation (intense anger and dislike). Thus, they may form an immediate attachment and idealize the other person, but when a slight separation or conflict occurs, they switch unexpectedly to the other extreme and angrily accuse the other person of not caring for them at all. Even with family members, individuals with BPD are highly sensitive to rejection, reacting with anger and distress to such mild separations as a vacation, a business trip, or a sudden change in plans. These fears of abandonment seem to be related to difficulties feeling emotionally connected to important persons when they are physically absent, leaving the individual with BPD feeling lost and perhaps worthless. Suicide threats and attempts may occur along with anger at perceived abandonment and disappointments.

People with BPD exhibit other impulsive behaviors, such as excessive spending, binge eating, risky sex, and other self-harming behavior. BPD often occurs with other psychiatric problems, particularly bipolar disorder, depression, anxiety disorders, substance abuse, and other personality disorders.

Treatment

Treatments for BPD have improved in recent years. Group and individual psychotherapy are at least partially effective for many patients. Within the past 15 years, a new psychosocial treatment termed dialectical behavior therapy (DBT) was developed specifically to treat BPD, and this technique has looked promising in treatment studies.⁶ Pharmacological treatments are often prescribed based on specific target symptoms shown by the individual patient. Antidepressant drugs and mood stabilizers may be helpful for depressed and/or labile mood. Antipsychotic drugs may also be used when there are distortions in thinking.⁷

Recent Research Findings

Although the cause of BPD is unknown, both environmental and genetic factors are thought to play a role in predisposing patients to BPD symptoms and traits. Studies show that many, but not all individuals with BPD report a history of abuse, neglect, or separation as young children.⁸ Forty to 71 percent of BPD patients report having been sexually abused, usually by a non-caregiver.⁹ Researchers believe that BPD results from a combination of individual vulnerability to environmental stress, neglect or abuse as young children, and a series of events that trigger the onset of the dis-

order as young adults. Adults with BPD are also considerably more likely to be the victim of violence, including rape and other crimes. This may result from both harmful environments as well as impulsivity and poor judgment in choosing partners and lifestyles.

NIMH-funded neuroscience research is revealing brain mechanisms underlying the impulsivity, mood instability, aggression, anger, and negative emotion seen in BPD. Studies suggest that people predisposed to impulsive aggression have impaired regulation of the neural circuits that modulate emotion.¹⁰ The amygdala, a small almond-shaped structure deep inside the brain, is an important component of the circuit that regulates negative emotion. In response to signals from other brain centers indicating a perceived threat, it marshals fear and arousal. This might be more pronounced under the influence of drugs like alcohol, or stress. Areas in the front of the brain (prefrontal area) act to dampen the activity of this circuit. Recent brain imaging studies show that individual differences in the ability to activate regions of the prefrontal cerebral cortex thought to be involved in inhibitory activity predict the ability to suppress negative emotion.¹¹

Serotonin, norepinephrine, and acetylcholine are among the chemical messengers in these circuits that play a role in the regulation of emotions, including sadness, anger, anxiety and irritability. Drugs that enhance brain serotonin function may improve emotional symptoms in BPD. Likewise, mood-stabilizing drugs that are known to enhance the activity of GABA, the brain's major inhibitory neurotransmit-

ter, may help people who experience BPD-like mood swings. Such brain-based vulnerabilities can be managed with help from behavioral interventions and medications, much as people manage susceptibility to diabetes or high blood pressure.⁷

Future Progress

Studies that translate basic findings about the neural basis of temperament, mood regulation and cognition into clinically relevant insights—which bear directly on BPD—represent a growing area of NIMH-supported research. Research is also underway to test the efficacy of combining medications with behavioral treatments like DBT, and gauging the effect of childhood abuse and other stress in BPD on brain hormones. Data from the first prospective, longitudinal study of BPD, which began in the early 1990s, is expected to reveal how treatment affects the course of the illness. It will also pinpoint specific environmental factors and personality traits that predict a more favorable outcome. The Institute is also collaborating with a private foundation to help attract new researchers to develop a better understanding and better treatment for BPD.

For More Information

National Institute of Mental Health
(NIMH)
Office of Communications and Public
Liaison
Public Inquiries: (301) 443-4513
Media Inquiries: (301) 443-4536
E-mail: nimhinfo@nih.gov
Web site: <http://www.nimh.nih.gov>

All material in this fact sheet is in the public domain and may be copied or reproduced without permission from the Institute. Citation of the source is appreciated.

References

- ¹Swartz M, Blazer D, George L, Winfield I. Estimating the prevalence of borderline personality disorder in the community. *Journal of Personality Disorders*, 1990; 4(3): 257-72.
- ²Soloff PH, Lis JA, Kelly T, Cornelius J, Ulrich R. Self-mutilation and suicidal behavior in borderline personality disorder. *Journal of Personality Disorders*, 1994; 8(4): 257-67.
- ³Gardner DL, Cowdry RW. Suicidal and parasuicidal behavior in borderline personality disorder. *Psychiatric Clinics of North America*, 1985; 8(2): 389-403.
- ⁴Zanarini MC, Frankenburg FR. Treatment histories of borderline inpatients. *Comprehensive Psychiatry*, in press.
- ⁵Zanarini MC, Frankenburg FR, DeLuca CJ, Hennen J, Khera GS, Gunderson JG. The pain of being borderline: dysphoric states specific to borderline personality disorder. *Harvard Review of Psychiatry*, 1998; 6(4): 201-7.
- ⁶Koerner K, Linehan MM. Research on dialectical behavior therapy for patients with borderline personality disorder. *Psychiatric Clinics of North America*, 2000; 23(1): 151-67.
- ⁷Siever LJ, Koenigsberg HW. The frustrating no-mans-land of borderline personality disorder. *Cerebrum, The Dana Forum on Brain Science*, 2000; 2(4).
- ⁸Zanarini MC, Frankenburg FR. Pathways to the development of borderline personality disorder. *Journal of Personality Disorders*, 1997; 11(1): 93-104.
- ⁹Zanarini MC. Childhood experiences associated with the development of borderline personality disorder. *Psychiatric Clinics of North America*, 2000; 23(1): 89-101.
- ¹⁰Davidson RJ, Jackson DC, Kalin NH. Emotion, plasticity, context and regulation: perspectives from affective neuroscience. *Psychological Bulletin*, 2000; 126(6): 873-89.
- ¹¹Davidson RJ, Putnam KM, Larson CL. Dysfunction in the neural circuitry of emotion regulation—a possible prelude to violence. *Science*, 2000; 289(5479): 591-4.



This is the electronic version of a National Institute of Mental Health (NIMH) publication, available from <http://www.nimh.nih.gov/publicat/index.cfm>. To order a print copy, call the NIMH Information Center at 301-443-4513 or 1-866-615-6464 (toll-free). Visit the NIMH Web site (<http://www.nimh.nih.gov>) for information that supplements this publication.

To learn more about NIMH programs and publications, contact the following:

Web address:

<http://www.nimh.nih.gov>

E-mail:

nimhinfo@nih.gov

Phone numbers:

301-443-4513 (local)

1-866-615-6464 (toll-free)

301-443-3431 (TTY)

Fax numbers:

301-443-4279

301-443-5158 (FAX 4U)

Street address:

National Institute of Mental Health

Office of Communications

Room 8184, MSC 9663

6001 Executive Boulevard

Bethesda, Maryland 20892-9663 USA

This information is in the public domain and can be copied or reproduced without permission from NIMH. To reference this material, we suggest the following format:

National Institute of Mental Health. Title. Bethesda (MD): National Institute of Mental Health, National Institutes of Health, US Department of Health and Human Services; Year of Publication/Printing [Date of Update/Revision; Date of Citation]. Extent. (NIH Publication No XXX XXXX). Availability.

A specific example is:

National Institute of Mental Health. Childhood-Onset Schizophrenia: An Update from the National Institute of Mental Health. Bethesda (MD): National Institute of Mental Health, National Institutes of Health, US Department of Health and Human Services; 2003 [cited 2004 February 24]. (NIH Publication Number: NIH 5124). 4 pages. Available from: <http://www.nimh.nih.gov/publicat/schizkids.cfm>