REVIEW ARTICLE

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Personality Disorders

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Personality refers to a relatively stable set of tendencies in behaviors, cognitions, and emotional patterns, which together constitute a person's unique character. One person may, for instance, be described as extroverted, flamboyant, and dominant, whereas another may be described as introverted, shy, and submissive. People usually have relatively good insight into who they are with respect to these characteristics. They are aware of the effect of their personalities on others and how the environment shapes who they are. This awareness helps persons make decisions and manage their relationships. In some persons, however, tendencies in behaviors, cognitions, and emotional patterns are extreme and maladaptive, indicated by problems in self-regulation and unstable relationships, with a compromised ability to perform at work or in school. From a psychiatric point of view, such persons may have a personality disorder.

There are two parallel classification systems for personality disorders in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5).[1] Section II of the DSM-5, which contains diagnostic criteria and codes for mental disorders, maintains the tradition of previous editions, viewing personality disorders as discrete, categorical entities. Ten categories of disorders are described: paranoid, schizoid, schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, and obsessive–compulsive personality disorders. The predominant features of each personality disorder are summarized in Table 1.

This system has been criticized because of evidence for the continuity between normal and abnormal personalities, heterogeneity within categories of personality disorders, a high co-occurrence among personality disorders, a high prevalence of personality disorder not otherwise specified, arbitrary diagnostic thresholds, and a restricted clinical ability to predict the efficacy of treatment.[2,3] In addition, studies have called into question the validity of the 10 categories of personality disorders, leading to a view that personality disorder cannot be considered something that a person has or does not have but that personality functioning can be described along a continuum of severity.[2-5] Therefore, in Section III of the DSM-5, an alternative system for diagnosing personality disorders has been endorsed, as summarized in Table 2.

Rather than viewing personality disorders as categorical entities, this system, called the alternative model for personality disorders, proposes a combination of categorical and "dimensional" approaches, forming a hybrid diagnostic scheme. The dimensional approach recognizes individual differences in the manifestation of personality traits — from mild to moderate to severe — with underlying dimensions (constructs) that account for high levels of overlap between personality disorders. For instance, all 10 categories of personality disorders involve problems in self-regulation and maintenance of stable relationships, and therefore, it makes sense to identify a unifying construct that allows for a more parsimonious diagnosis.

On the basis of the alternative model for personality disorders, the clinician

Table 1. Predominant Features of Personality Disorders as Described in the DSM-5, Section II.*

Category	Features
Paranoid	Distrust and suspiciousness, with a tendency to interpret other people's motives as malevolent
Schizoid	Detachment from social relationships and restricted range of emotional expression
Schizotypal	Acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior
Antisocial	Disregard for, and violation of, the rights of others
Borderline	Instability in interpersonal relationships, self-image, and affects and marked impulsivity
Histrionic	Excessive emotionality and attention-seeking
Narcissistic	Grandiosity, need for admiration, and lack of empathy
Avoidant	Social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation
Dependent	Excessive need to be taken care of, resulting in submissive and clinging behavior
Obsessive–compulsive	Preoccupation with orderliness, perfectionism, and control

* DSM-5 denotes fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders*.

Table 2. Abbreviated Diagnostic Criteria for Personality Disorder, According to the DSM-5, Section III, and the ICD-11.*

DSM-5, Section III (Alternative Model for Personality Disorders)
Patient has moderate or greater impairment in personality functioning (self-functioning and interpersonal functioning), rated >2 on a 5-point severity scale (ranging from 0 to 4), indicated by difficulty in at least two of the following four areas: identity, self-direction, empathy, or intimacy
Patient has maladaptive traits in one or more of the following five trait domains (or trait facets within domains): negative affectivity, detachment, antagonism, disinhibition, or psychoticism (odd, eccentric, or unusual behaviors or cognitions)
Personality dysfunction and trait expression are relatively inflexible and pervasive across multiple contexts (i.e., symptoms do not occur only at home or during certain times)
Personality dysfunction is stable across time, and onset can be traced back to adolescence or early adulthood
Dysfunction is not better explained by another mental disorder
Dysfunction is not attributable to physiological effects of a substance or another medical condition
Impairments are not better understood as normal for the person's developmental stage or sociocultural environment
ICD-11
Patient has impairments in aspects of self-functioning and interpersonal functioning, described as mild, moderate, or severe personality disorder
Personality disorder and personality difficulty can be further described in terms of five trait domain specifiers: negative affectivity, detachment, dissocial behavior (lack of empathy, callousness, or meanness), disinhibition, or anankastia (obsessive–compulsive behavior)
Disturbance has persisted over an extended period (e.g., ≥2 yr)
Disorder is manifested in patterns of cognition, emotional experience, emotional expression, and behavior that are maladaptive (e.g., inflexible or poorly regulated)
Disorder is manifested across a range of personal and social situations, although it may be consistently evoked by particular types of circumstances and not others
Symptoms are not due to direct effects of a medication or substance, including withdrawal effects, and are not better accounted for by another mental disorder, a disease of the nervous system, or another medical disorder
Disorder is associated with substantial distress or marked impairment in personal, family, social, educational, occupational, or other important areas of functioning
Personality disorder should not be diagnosed if the patterns of behavior characterizing the disturbance are developmentally appropriate or can be explained primarily by social or cultural factors, including sociopolitical conflict

* ICD-11 denotes 11th revision of the *International Classification of Diseases*.

first assesses the underlying dimension shared by all personality disorders (criterion A): maladaptive self-functioning (meaning disordered identity and self-direction) and interpersonal functioning (meaning disordered empathy and intimacy). Next, the clinician evaluates the severity of pathologic personality traits across five maladaptive trait domains (criterion B): negative affectivity, detachment, antagonism, disinhibition, and psychoticism. In a third step, the clinician has the option to specify one of six discrete categories of personality disorders: schizotypal, antisocial, borderline, narcissistic, avoidant, and obsessive–compulsive personality disorders. The four other disorders that were in the traditional categorization (paranoid, schizoid, histrionic, and dependent personality disorders) were not retained in the alternative model for personality disorders because of insufficient data to validate them as distinct entities.[6-8]

Another perspective is provided by the diagnostic scheme for personality disorder in the 11th revision of the *International Classification of Diseases* (ICD-11),[9,10] endorsed by the World Health Organization. This scheme, which is also summarized in Table 2, reflects the alternative model for personality disorders in its initial assessment of criteria of maladaptive self-functioning and interpersonal functioning, as well as its use of the maladaptive trait domains, but the ICD-11 discards all the traditional categories of personality disorders except borderline personality disorder (BPD). This category has been retained as a specifier for the purpose of giving mental health services time to adjust their systems to the dimensional model, after which the BPD specifier is expected to be removed.

Although the transition to an alternative model for diagnosing personality disorders is supported by the research and clinical communities,[4,11] the literature regarding treatment is still predominantly focused on the categorical approach. The highest-quality evidence for various treatments concerns BPD, which is the most frequently diagnosed personality disorder in clinical settings[12-14] and the most extensively researched personality disorder.[15,16] There is also support for the notion that BPD represents features of personality dysfunction that are shared across all manifestations of personality disorder,[17,18] meaning that information on BPD may be relevant to all other personality disorders. This review, therefore, focuses predominantly on BPD, with perspective provided by considering the five other categories of disorders that have been retained in the alternative model.

EPIDEMIOLOGY OF BPD

A meta-analysis has suggested that BPD has a community point prevalence of 0.7 to 2.7%,[19] which is similar to the prevalence of other personality disorders in the general population. A systematic review has estimated that the mean prevalence of BPD is 22.4% among patients hospitalized in psychiatric units and 11.8% among patients in outpatient psychiatric settings.[20] Some studies have suggested that the rates for BPD are higher than the rates for other personality disorders. Furthermore, analyses have suggested that up to half of psychiatric patients may meet criteria for a personality disorder.[21,22] Data on the prevalence of personality disorders among adolescents are lacking, except for BPD, which has been reported to have a prevalence of 11% among adolescents in outpatient psychiatric settings.[23] The rate of BPD among adolescents in inpatient psychiatric settings is generally higher than the rate among adults, with two studies showing prevalences of 35.6% and 32.8%.[24,25]

Less is known about the prevalence of personality disorders in primary care because they are not routinely assessed in this setting. A missed diagnosis of personality disorder in a primary care setting can have serious consequences, given the associated risks of suicide (2 to 5% among persons with BPD)[26] and impaired social functioning[20] and the high burden of personal suffering, health care costs, and lost productivity.[27-29] Prevalence studies of personality disorders have suggested that the rate among men is similar to the rate among women in the general population,[19] but in clinical psychiatric settings, the prevalence has been higher among women, with little evidence suggesting that this is the result of gender bias in assessment.[30] Although most prevalence studies have not shown systematic racial or ethnic differences, a few studies are addressing this issue.[20]

CLINICAL FEATURES

The diagnostic criteria for personality disorders are assessed through an interview by a clinician,

Table 3. Categorically Defined Borderline Personality Disorder, According to the DSM-5, Section II.

Patient has pervasive pattern of instability in interpersonal relationships, self-image, and affects and marked impulsivity, indicated by at least five of the following nine personality traits:
Frantic efforts to avoid abandonment
Unstable and intense interpersonal relationships
Identity disturbance
Impulsivity in at least two areas (e.g., spending, substance abuse, reckless driving, or binge eating)
Recurrent suicidal or self-mutilating behavior
Affective instability
Chronic feelings of emptiness
Inappropriate, intense anger or difficulty controlling anger
Transient, stress-related paranoid ideation or severe dissociative symptoms
Symptoms are relatively inflexible and pervasive across multiple contexts (i.e., symptoms do not occur only at home or during certain times)
Symptoms result in significant distress or impairment in functioning
Symptoms or patterns of behavior are stable across time, and their onset can be traced back to adolescence or early adulthood
Symptoms are not better explained by another mental disorder
Symptoms are not attributable to physiological effects of a substance or another medical condition

which can be supplemented by semistructured interviews or patient-reported measures. A list of measures commonly used to assess patients for BPD is provided in Table S1 in the Supplementary Appendix, available with the full text of this article at NEJM.org. Several of these measures can be used to evaluate patients for other personality disorders, as well. In addition, the International Consortium for Health Outcomes Measurement has a battery of patient-reported measures that can be used to assess the outcomes of personality disorders.[31]

BPD is characterized by a pervasive pattern of inadequate emotional regulation, a poor or incoherent sense of self and identity, and disordered interpersonal relationships.[32] The disorder was first included in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders*, published in 1980.[33] According to Section II of the DSM-5, the diagnosis of BPD can be established when an adult or adolescent meets at least five of nine diagnostic criteria, listed in Table 3.

The coexistence of personality disorders and other mental disorders is common. For example, an analysis of data from the National Epidemiologic Survey on Alcohol and Related Conditions showed that among patients with BPD, the lifetime prevalence of anxiety disorders is 84.5%, mood disorders 82.7%, and substance use disorders 78.2%.[14] High rates of post-traumatic stress disorder (30.2%), attention deficit–hyperactivity disorder (33.7%), bipolar I disorder (21.6%), bipolar II disorder (37.7%), and somatic disorders have also been reported among patients with BPD.[32] The overlap of BPD with other psychiatric disorders and with other personality disorders supports the idea that there are features shared by all these disorders, including features of internalizing behavior (e.g., depression, anxiety, and stress-related disorders) and externalizing behavior (e.g., substance use and antisocial behavior).[34]

ONSET AND COURSE

For decades, it was thought that personality disorders could not be diagnosed in adolescence. Opponents of early diagnosis argued that personality was not yet stable enough to warrant any diagnosis, and it would be stigmatizing to diagnose a personality disorder in a young person. However, more recent empirical research on BPD has altered this view.[35] There is evidence that BPD in adolescents is a coherent syndrome,[36] that valid and reliable measures of this syndrome are available,[37,38] that it is separate

from other disorders in course and outcome,[39,40] and that it is similar to BPD in adults with respect to prevalence,[41] stability,[42] and risk factors.[43] There is also preliminary support for the efficacy of treatment for BPD in adolescents, although more studies are needed.[44] Adolescence is a risk period for the onset of personality disorders, and advocacy groups have made gains in destigmatizing these disorders in adults and adolescents, as well as promoting prevention and early intervention.[45] Given that the stability of personality increases with age, it may make sense to intervene early, when personality is more malleable, but this has not been established empirically.

Prospective cohort studies have shown different rates of the stability of the diagnosis of BPD (i.e., the consistent presence of BPD) from adolescence through adulthood, with the stability rate depending on how the disorder is measured.[32] The stability rates for the categorical diagnosis range from 14 to 40%. Naturalistic follow-up studies have shown that the severity of BPD diminishes over time, with a mean remission rate of 60%.[26] In contrast, when BPD traits are counted dimensionally rather than categorically, the average stability of the diagnosis over time is higher, with estimates of 39 to 59%. When a person's ranking in terms of the level of BPD traits is compared with the ranking of other persons of the same age, the stability of BPD has reportedly been even higher (53 to 73%). The low stability rates for the categorical diagnosis, along with treatment outcomes, have challenged the notion that BPD is an intractable and untreatable disorder. However, even when a patient no longer meets the clinical threshold (i.e., five of nine criteria) for BPD and the disorder is considered to be in remission, functional impairment persists.

CAUSES AND PATHOPHYSIOLOGICAL CORRELATES

Studies in twins have suggested that BPD is approximately 55% heritable.[46] Although data on other personality disorders are scarce, some reports have suggested moderate heritability.[47] Theoretical models of the development of personality disorders are based on the view that there are interactions between biologic predispositions and environmental factors.[48,49] In line with these models, children who are born with a sensitive temperament and who are raised in families in which the caregivers struggle to meet the children's emotional needs are at increased risk for the development of personality disorders,[46,50-55] and prospective studies have shown that harsh or insensitive parenting, emotional neglect, physical or sexual maltreatment, and victimization by bullying are associated with the development of personality disorders.[43] The specificity of these risk factors and the role of the child's temperament in evoking parenting behaviors are not clear.

Data on physiological factors associated with personality disorders are lacking for most conditions. However, cross-sectional studies suggest that there are correlates of BPD in three domains. First, a meta-analysis showed that, as compared with healthy or depressed persons, persons with BPD have pronounced amygdala hyperreactivity in response to negative emotional stimuli that have been associated with emotional dysregulation. However, persons with post-traumatic stress disorder have even more pronounced amygdala hyperreactivity than those with BPD,[56] which indicates that these findings may not be specific. This meta-analysis also showed that patients with BPD have enhanced activation of the medial cingulate gyrus during processing of negative emotional stimuli.

Second, a meta-analysis showed that, as compared with healthy controls and persons with other personality disorders, persons with BPD have abnormalities in stress responses, indicated by continuous cortisol output and blunted cortisol response to stress. Although these studies have generally been of low quality, they point to directions for research on hypothalamic–pituitary–adrenal axis functioning and BPD.[57]

Third, persons with BPD have abnormal functional neuroimaging findings in brain areas associated with social cognition, self-functioning, and identity functioning. Such areas include regions of the orbitofrontal, medial prefrontal, and anterior cingulate cortexes; regions of the precuneus and posterior cingulate cortex; cortical and subcortical regions of the temporal lobes, including the amygdala; and the somatosensory cortexes.[58] These findings may not be specific to BPD and require replication.

TREATMENT

There have been few randomized disorder-specific trials of treatment for schizotypal, antisocial, narcissistic, avoidant, and obsessive–compulsive personality disorders. However, treatment protocols have been developed for BPD, and several randomized, controlled trials have been conducted to evaluate them. Although psychotropic medications such as mood stabilizers, antidepressant agents, and antipsychotic medications are routinely prescribed for persons with BPD, no medications have been approved by regulatory agencies for the treatment of BPD, and the effect of medications is uncertain. Pharmacotherapy has been used to alleviate symptoms of coexisting disorders, such as depression, anxiety, impulsivity, and psychosis, with little evidence that they address the specific symptoms of BPD.[32]

A Cochrane review[59] and national treatment guidelines[60,61] suggest that psychotherapy may be an effective approach to treatment for BPD. The Cochrane review included randomized, controlled trials of psychotherapy that enrolled a total of 4507 patients, predominantly female patients 15 to 46 years of age in outpatient settings, with treatment lasting only up to 36 months. As compared with treatment as usual, psychotherapy had moderate but clinically relevant effects on symptom severity, self-harm, suicidality, and impaired psychosocial functioning (listed in approximately declining order of effectiveness). Although approximately 16 different kinds of psychotherapy have been evaluated for the treatment of BPD, one third of trials have used dialectical behavior therapy,[62] followed in frequency by trials of mentalization-based therapy.[63] Dialectical behavior therapy aims to reduce emotional dysregulation by discussing and building emotional-regulation skills. The aim of mentalization-based therapy is to help patients view problems and their interpretations of interactions from multiple perspectives, with the goal of improving self-regulation and the quality of interpersonal relationships. Other treatment approaches, with fewer trials, include good psychiatric management for BPD,[64,65] schema-focused therapy,[66] transference-focused psychotherapy,[67] and Systems Training for Emotional Predictability and Problem Solving (STEPPS),[68] all of which have adherents but are not as widely accepted as dialectical behavior therapy and mentalization-based therapy.

CONCLUSIONS AND FUTURE DIRECTIONS

Inexpensive treatments that require fewer and shorter psychotherapy sessions delivered by less specialized mental health professionals are needed, since current approaches require considerable resources and patient involvement. Although the benefits of prevention and early intervention are generally accepted, few high-quality randomized, controlled trials have focused on personality disorders in adolescents. The field is in transition and continues to grapple with the question of whether a categorical system of diagnosing personality disorders or a dimensional model is more beneficial to patients. The lack of data on treatment outcomes for many of the personality disorders, as well as data on the alternative model for personality disorders, has made it difficult to draw conclusions about the value of various treatments. Our understanding of personality disorders continues to evolve.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

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