An Empirically Derived Classification of Adolescent Personality Disorders

Drew Westen, PhD, Jared A. DeFife, PhD, Johanna C. Malone, PhD, John DiLallo, MD

Objective: This study describes an empirically derived approach to diagnosing adolescent personality pathology that is clinically relevant and empirically grounded. **Method:** A random national sample of psychiatrists and clinical psychologists (N = 950) described a randomly selected adolescent patient (aged 13–18 years, stratified by age and gender) in their care using the Shedler-Westen Assessment Procedure-II-A for Adolescents (SWAP-II-A) and several additional questionnaires. **Results:** We applied a form of factor analysis to identify naturally occurring personality groupings within the patient sample. The analysis yielded 10 clinically coherent adolescent personality descriptions organized into 3 higher-order clusters (internalizing, externalizing, and borderline-dysregulated). We also obtained a higher-order personality strengths factor. These factors and clusters strongly resembled but were not identical to factors similarly identified in adult patients. In a second, independent sample from an intensive day treatment facility, 2 clinicians (the patients' treating clinician and the medical director) independently completed the SWAP-II-A, the Child Behavior Checklist (CBCL), and a measure of adaptive functioning. Two additional clinicians, blinded to the data from the first 2 clinicians, independently rated patients' ward behavior using a validated measure of interpersonal behavior. Clinicians diagnosed the personality syndromes with high agreement and minimal comorbidity among diagnoses, and SWAP-II-A descriptions strongly correlated in expected ways with the CBCL, adaptive functioning, and ward ratings. **Conclusion:** The results support the importance of personality diagnosis in adolescents and provide an approach to diagnosing adolescent personality that is empirically based and clinically useful. J. Am. Acad. Child Adolesc. Psychiatry, 2014;53(5):528–549. **Key Words:** adolescent personality disorders, internalizing, externalizing, emotional dysregulation, adolescent personality pathology

Personality diagnosis in adolescence has long been controversial. Concerns include questions about the stability of personality in adolescents, differentiating normative adolescent characteristics from adult psychopathology, and the stigma of personality diagnoses.[1-4] Beginning with research conducted 2 decades ago showing that borderline personality disorder (BPD) can be reliably identified in adolescent samples,[5] several independent research teams using different methodologies have identified patterns of personality pathology in adolescent samples in both cross-sectional[6,7] and longitudinal[4,8-10] investigations.

Personality refers to stable patterns of affect, cognition, and behavior that emerge under specific conditions over time.[11,12] Although adolescence is a period of flux and development, a growing body of research highlights the persistence of personality characteristics from childhood and adolescence into adulthood.[8,9,13,14] Longitudinal research by Cohen *et al.* has documented that *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (DSM-IV)* personality disorder (PD) diagnoses in adolescence predict a range of outcomes in the 20s and 30s in a large normative sample, including emergence of axis I disorders not predicted by presence of the same disorders in adolescence (e.g., mood, anxiety, and substance use disorders). Other studies have documented not only the ability of adolescent personality diagnoses to predict current and future functioning, but also similarities between adolescent and adult variants of the same disorders.[5,15-18] Thus, despite the admonition in the *DSM-IV TR* and the tempered admonition in the *DSM-5* against personality diagnosis in

CG Clinical guidance is available at the end of this article.

adolescence, overwhelming evidence since the initial publication of the *DSM-IV* nearly 2 decades ago has demonstrated that such diagnoses can be made reliably by at least age 13 or 14 years and can predict important outcomes.

How best to classify personality pathology in adolescents, however, and whether adult PD diagnoses and criteria are optimal for adolescents, remain open questions, primarily for 2 reasons. First, the disorders in the *DSM-5* were identified using adult samples. Given the developmental differences between adolescents and adults, the applicability of precisely the same syndromes and criteria would seem unlikely. Second, although the classification of PDs in adults has been revised using empirical methods since its initial presentation in the *DSM-III*, it was never generated empirically and has proven to be fraught with difficulties over the last 30 years. These include excessive rates of artifactual co-occurrence of disorders or "comorbidity"; low cross-observer agreement in diagnosing personality except in narrowly defined reliability studies in which 2 observers observe the same interview or conduct the same interview within a few weeks of each other; the consistent finding that dimensional diagnosis is far more predictive of relevant criterion variables than categorical diagnosis; and the tendency of patients to receive uninformative "not otherwise specified" (NOS) diagnoses in both research and practice.[19-21]

The present studies were undertaken to develop and validate a taxonomy of adolescent personality pathology. Study 1 comprises a large sample (N = 950), highly representative of adolescents in clinical practice, in which treating clinicians provided the data from which to derive diagnoses empirically. Study 2 comprises a smaller study of the validity of those diagnoses, particularly cross-observer validity, in which 2 clinicians independently rated the SWAP-II-A and Child Behavior Checklist (CBCL),[22] and 2 other licensed clinicians independently completed ratings of patients' behavior on the unit using a well-validated instrument.

METHOD

Study 1

Participants. As part of a larger institutional review board–approved study on adolescent personality pathology,[23] we contacted a national sample of psychiatrists and psychologists with at least 5 years' experience post-residency (MDs) or post-licensure (PhDs) selected from the membership registers of the American Psychiatric and American Psychological Associations, including clinicians targeted in prior solicitations to create a practice research network. We selected clinicians whose membership records indicated an interest in or practice with children or adolescents, and supplemented this where necessary with a general sample of clinicians who did not indicate any particular interest or preference, given that many clinicians who treat adults also treat adolescents; the 2 subsamples of clinicians and patients did not differ in any significant ways. More than one-third of clinicians agreed to participate in the study by the time that we completed recruitment of the sample, with psychologists represented at roughly twice the rate as psychiatrists. Participating clinicians received a consulting fee of $200 to complete a battery of measures. Clinicians received a packet containing a cover letter, a consent form, a postage-paid return envelope, and the study measures. Each clinician contributed data on only 1 patient, to minimize rater-dependent variance.

Procedures. To obtain a broad range of personality pathology, from relatively minimal to substantial, we asked clinicians to describe "an adolescent patient you are currently treating or evaluating who has enduring patterns of thought, feeling, motivation, or behavior—that is, personality problems—that cause distress or dysfunction," and emphasized that patients need not have a *DSM-IV* PD diagnosis. We also instructed clinicians to disregard the caveats in the *DSM-IV-TR* regarding the application of axis II diagnoses to adolescents, and to simply to select a patient with any degree or form of personality pathology.

We obtained a stratified random sample, stratifying by age (13–18 years) and sex. The only exclusion criteria were chronic psychosis and mental retardation. In addition, we asked clinicians to select a patient whose personality they believed that they knew, using as a guideline $\geq$6 clinical contact hours but $\leqq$2 years (to minimize confounds imposed by personality change with treatment). To minimize selection biases, we directed clinicians to consult their calendars to select the last patient whom they saw during the previous week who met the study criteria, regardless of setting (e.g., private practice, residential facility).

Measures. The core battery of measures required approximately 2 hours to complete. We describe here only the measures used in this report.

Clinical Data Form for Adolescents (CDF-A). The CDF-A is the adolescent version of the Clinical Data Form,[24] a clinician-report form developed over several years that assesses a range of variables related to demographics, diagnosis, adaptive functioning, developmental and family history, and etiology.[25] Clinicians first provide demographic data on themselves and the patient. They then rate the patient's adaptive functioning using a number of indices, such as ratings of school performance and peer relations, as well

as relatively objective indicators such as history of arrests, suicide attempts, and psychiatric hospitalizations. Research has demonstrated that clinician ratings of adaptive functioning variables show high interrater reliability and concurrent validity, that is, correlations with the same data obtained by independent interview ($r > 0.60$).[26,27] The next section of the CDF-A assesses aspects of the patient's developmental and family history with which clinicians who have met with adolescents and/or their parents over several sessions are likely to be familiar. The CDF-A assesses a wide range of variables of potential etiological relevance, such as history of foster care, family stability, and physical and sexual abuse. Clinicians working with adolescent patients generally have relatively direct access to such information from having met with parents and/or other collateral sources. In prior studies with both adolescent and adult samples, clinicians' judgments on these variables have predicted theoretically relevant criterion variables and have reflected reasonable (and conservative) decision rules.[28,29] For example, when asked to indicate reasons for their belief that a patient had a history of sexual abuse, virtually all clinicians checked off items indicating involvement of authorities such as police or Department of Social Services, intact pretreatment memories of sexual abuse, and corroboration from family members or court records; less than 5% indicated that their judgment reflected inferences from the symptom picture or memories recovered in treatment, and clinicians tended to rate cases with questionable or ambiguous reasons for inference as "unsure"[30,31] (which we treated as negatives for data analytic purposes). CDF-A ratings of quality of patients' relationships with their parents also correlate strongly with scores on a clinician-report Parental Bonding Inventory (PBI),[30,32] which has similar factor structure and correlates with the self-report version. Prior research has also found extremely high correlations (most ranging from $r = 0.50$ to 0.70) between clinician-report and self-report data on CDF variables, particularly aggregated variables, suggesting that the clinician-report data strongly converge with data from alternative informants vis-à-vis both their current adaptive functioning and family and developmental history.[33]

Shedler-Westen Assessment Procedure for Adolescents, Version II (SWAP-II-A). The SWAP-II-A, the most recent version of the SWAP for adolescents,[24,34] is a 200-item personality pathology Q-sort measure designed for use by clinically experienced observers based on all available information over the course of treatment or a systematic clinical diagnostic interview of the patient and parents.[35,36] To describe a patient using the SWAP, a clinically experienced observer sorts (rank orders) the 200 personality statements into 8 categories based on their applicability to the patient, from those that are not descriptive (assigned a value of 0) to those that are highly descriptive (assigned a value of 7). Statements that apply to a greater or lesser degree are placed in intermediate categories.

Both the adult and adolescent versions of the SWAP show considerable evidence of reliability and validity,[23] predicting a range of measures of adaptive functioning (e.g., history of hospitalizations, school performance, violence), psychopathology (e.g., the CBCL), etiological variables (e.g., childhood history of physical and sexual abuse, family history of internalizing and externalizing disorders), and personality as assessed by independent interviewers blind to clinician data.[24,25,37-42] Empirically, clinicians' theoretical orientation and professional degree (psychology or psychiatry) has little impact on the way that they use the instrument.[43,44]

Axis II Criterion Checklist. Clinicians completed a randomly ordered checklist of diagnostic criteria for all *DSM-IV* personality disorders indicating which criteria the patient met. Categorical diagnoses were derived by adding the number of criteria present and applying the *DSM-IV* decision rules (regarding the number of symptoms required) to generate *DSM-IV* diagnoses. This method provides results that mirror those of structured diagnostic interviews.[24,45,46]

CBCL—Clinician Version. The CBCL[22] is a questionnaire designed to assess behavioral problems and social competencies of children and adolescents aged 4 to 18 years. Three versions of the questionnaire can be completed, by the parent, teacher, or child or adolescent.[47,48] The parent-report version of the CBCL also has demonstrated validity as rated by an adolescent's treating clinician.[29] This study used the parent/clinician-report version. The CBCL includes 128 items grouped into 11 Problem Scales (including 8 Syndrome Scales) and 4 Competence Scales. The CBCL also yields 2 broadband scales of internalizing and externalizing symptomatology. The CBCL is widely used in both clinical and research settings, and has demonstrated strong reliability and validity.[49,50]

Data Analysis. To identify naturally occurring diagnostic groupings empirically (i.e., patients with personality features similar to one another and distinct from those of patients in other groupings), we used a form of factor analysis, Q-factor analysis.[51] The computational algorithms are identical to those of conventional factor analysis but are used to factor cases rather than variables. Whereas conventional factor analysis identifies groups of variables that assess a common underlying trait (e.g., hostility), Q-factor analysis identifies groups of similar cases (in this case, adolescents) who share a common syndrome or constellation of symptoms. The findings reported here are based on factor extraction using unweighted least squares (ULS) with Promax rotation. We tested other potential factor solutions, which yielded similar results.

After identifying diagnostic groupings empirically, we created scales to assess each disorder by selecting the SWAP-II-A items with the highest factor scores (i.e., the items that best described each syndrome and using

other well-established psychometric procedures and clinical experience with adolescents to maximize internal consistency of the scales and minimize redundancy of different scales). A significant advantage of using clinically skilled observers assessing a large, representative clinical sample is that the items identified by factor analysis constitute both diagnostic criteria and items that can be used in research as psychometric scales. For clinical purposes, the items can be rated as present/absent, as in the *DSM-IV*, or turned into more clinician-friendly paragraph format as diagnostic prototypes.[44,52-55] Diagnosticians in clinical practice then rate the overall similarity or "match" between a patient and the prototype. This approach was designed to work with, rather than against, the naturally occurring cognitive decision processes of human diagnosticians.[56-59] The prototype-matching method preserves a syndromal approach to personality diagnosis,[60-62] consistent with all editions of the *DSM*, while allowing dimensional assessment on a scale from 1 (no match) through 5 (very good match). Where categorical diagnosis is useful (e.g., to facilitate clinical communication), ratings of 4 or more indicate "caseness," and ratings of 3 indicate "features" or subthreshold pathology. The method parallels diagnosis in many areas of medicine, where variables such as blood pressure are measured on a continuum, but physicians refer to ranges as "borderline" or "high." Diagnostic reliability of SWAP prototype diagnoses by independent observers is high, with median interrater reliability across personality disorders of $r = 0.72$,[55] comparable to interrater reliability coefficients commonly observed for structured diagnostic interviews, and with mean κ values between 0.69 and 0.84.[63,64] The following paragraph, written for the study, illustrates this approach using the borderline diagnosis that emerged empirically from this sample:

> *Summary Statement: Adolescents with Borderline Personality have impaired ability to regulate their emotions, have unstable perceptions of self and others that lead to intense and chaotic relationships, and are prone to act on self-destructive impulses.*
>
> Adolescents who match this prototype have emotions that can change rapidly and spiral out of control, leading to extremes of sadness, anxiety, and rage. They tend to "catastrophize," seeing problems as disastrous or unsolvable, and are often unable to soothe or comfort themselves without the help of another person. They are prone both to intense anger and to intense feelings of unhappiness, feeling like life has no meaning. They tend become irrational when strong emotions are stirred up, showing a significant decline from their usual level of functioning. When distressed, their perception of reality can become grossly impaired, and/or they may enter altered, dissociated states (e.g., feeling like the self or the world feels strange, unreal, or unfamiliar). Adolescents who match this prototype lack a stable sense of self, beyond the normative questions many teenagers have about who they are; their attitudes, values, goals, and feelings about themselves may seem unstable or ever-changing. They are prone to painful feelings of emptiness and often have a deep sense of inner badness, seeing themselves as damaged, evil, or rotten to the core. They similarly have difficulty maintaining stable, balanced views of others; when upset, they have trouble perceiving positive and negative qualities in the same person at the same time, seeing others in extreme, black-or-white terms. Consequently, their relationships tend to be unstable, chaotic, and rapidly changing. They fear rejection and abandonment, fear being alone, and tend to become attached quickly and intensely. They are prone to feeling misunderstood, mistreated, or victimized. They are simultaneously needy of, and rejecting toward, others. Adolescents who match this prototype are prone to act on self-destructive impulses. They struggle with genuine wishes to kill themselves, tend to make repeated suicidal threats or gestures, and engage in self-mutilating behavior, especially when an attachment relationship is disrupted or threatened.

Study 2

Procedure. We designed study 2 as a preliminary study to address the primary limitation of study 1. The goal was to assess the extents to which, first, 2 independent observers would provide similar SWAP-II-A descriptions of the same patient based on their different roles and interactions with the patients, and, second, predictor and criterion variables converge and diverge as in study 1 but with independent observers.

Participants and their guardians (where necessary) were approached individually to solicit consent following procedures approved by the institutional review board. Because the SWAP-II-A requires clinically experienced observers, only participants who were patients of licensed clinical staff were selected for this study. Patients were recruited who had been known to their clinicians for at least 3 months. For each adolescent, 2 clinicians (the primary psychotherapist, who was either a licensed clinical psychologist or a licensed clinical social worker with at least 2 years of postlicensure experience, and a board-certified child and adolescent psychiatrist, who had at least 6 years of clinical experience post-residency training) completed 3 primary measures (described below). Two licensed clinicians other than the primary therapist or psychiatrist provided ward behavior ratings based on their experience with the adolescent from the program milieu.

TABLE 1 Sample Characteristics

Clinician Demographics	
Discipline, %	
Psychiatry	28.3
Psychology	71.6
Sex, %	
Female	42.2
Male	57.3
Years of experience, M (SD)	18.5 (8.6)
Theoretical orientation, %	
Integrative/eclectic	52.1
Psychodynamic	18.7
Cognitive-behaviorial	20.5
Biological	3.4
Patient Demographics	
Age, M (SD)	15.6 (1.6)
Sex, %	
Female	50.6
Male	49.3
Socioeconomic class, %	
Poor	5.9
Working	19.2
Middle	40.5
Upper/upper middle	34.1
Current residence, %	
Both parents	44.2
One parent	33.7
Foster home/residential facility	7.6
Other family members	4.7
Ethnicity/race, %	
White	78.6
African American	7.8
Hispanic	7.2
Asian	2.6
Primary Axis I diagnosis, %	
Dysthymia	40.8
ODD	33.9
MDD	27.6
ADHD	27.5
Adjustment	23.9
Substance	17.4
CD	14.6
Bipolar spectrum	14.4
GAD	14.0
PTSD	12.0
GAF, M (SD)	56.8 (9.8)
Treatment Characteristics	
Length (mo)	
M (SD)	12.4 (10.1)
Median	10
Clinical setting, %	
Private practice	70.1
Outpatient clinic	18.1
Inpatient/residential	6.1
School	2.6
Forensic	2.1

Note: ADHD = attention-deficit/hyperactivity disorder; CD = conduct disorder; GAD = generalized anxiety disorder; GAF = global functioning; MDD = major depressive disorder; ODD = oppositional defiant disorder; PTSD = posttraumatic stress disorder.

Participants. Participants were 33 patients (58% female) aged 14 to 20 years (mean = 16.9, SD = 1.38) from an intensive urban day treatment program. The majority were Hispanic (45.5%), followed by African American (30.3%) and white (15.2%). Patients were largely from working class or poor families (27.3% identified as poor, 48.5% as working class, 21.2% as middle class or above). The day treatment program was designed for adolescents from the New York City public school system whose psychiatric problems had interfered with their ability to attend school for a significant period of time.

Measures. SWAP-II-A. The SWAP-II-A was administered by 2 pairs of seasoned clinicians independently on each patient.

CDF-A. The CDF-A was administered independently by 2 experienced clinicians on each patient.

CBCL—Clinician Version. The CBCL was administered independently by 2 experienced clinicians on each patient.

Chart of Interpersonal Reactions in Closed Living Environments (CIRCLE). The CIRCLE[68,69] is a 51-item questionnaire originally designed for nurses to describe the interpersonal verbal and nonverbal behavior of patients using the Interpersonal Circumplex model (IPC).[70] The measure yields 8 main scales describing observed behavioral patterns: dominant, coercive, hostile, withdrawn, submissive, compliant, nurturant, and gregarious. Two-week retest correlations ranging from 0.83 to 0.92 demonstrate the short-term stability of the CIRCLE.[69] In addition, the measure has shown meaningful associations with personality pathology in adults[71] as well as 5-factor personality traits.[68]

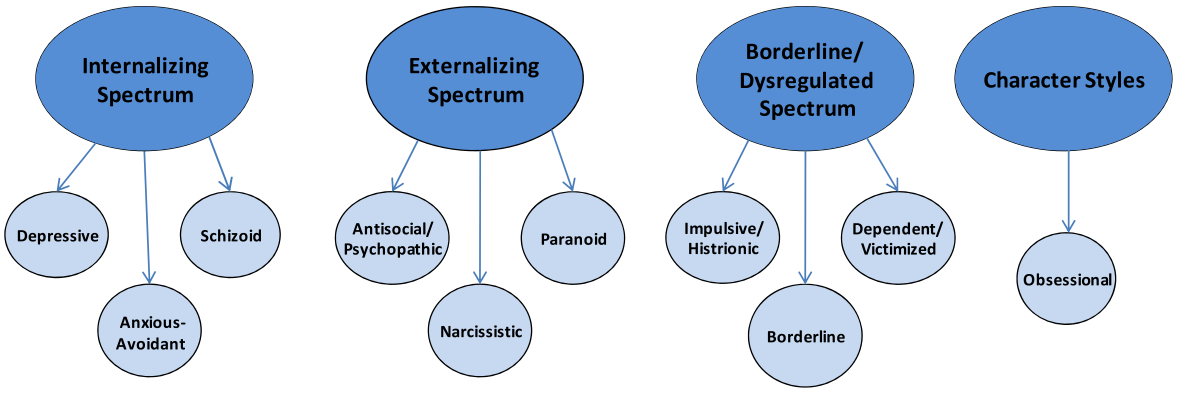
We assessed the validity of the diagnostic dimensions by correlating the scales derived from them with dimensional measures of the current PDs as well as with CBCL scale scores.

RESULTS

Study 1

Clinician (N = 950) and patient (N = 950) characteristics are included in Table 1. As assessed by applying *DSM-IV* criteria to the Axis II Checklist,

FIGURE 1 Hierarchical structure of empirically derived personality syndromes in adolescents (N = 950).



antisocial (33%), avoidant (28%), and borderline (23%) PDs were the most prevalent personality diagnoses, although all *DSM-IV* personality disorders were represented in relatively high numbers (with the exception of schizotypal PD, which was present in only 50 cases), with high rates of comorbidity similar to those found in studies using structured interviews with both adolescents and adults; 650 patients (68.4%) met criteria for a *DSM-IV* PD diagnosis. Clinicians were diverse in theoretical orientation, with the majority self-defining as "integrative-eclectic" (as could be expected with practitioners who work with adolescents and their families).

Deriving Diagnostic Syndromes

As in the corresponding adult sample (Westen *et al.*, 2012), we first selected patients with a level of pathology indicative of a "disorder," operationally defined as meeting *DSM-IV* criteria for at least 1 PD and a global assessment functioning (GAF) score of <70. A total of 65% of the sample met these criteria. From these patients, we obtained a hierarchical factor structure comprised of 3 superordinate factors or personality spectra (obtained in the full sample as well): internalizing; externalizing; and borderline-dysregulated (Figure 1). These factors accounted for 35% of the variance. We then conducted second-order factor analyses, factoring patients within each spectrum to identify specific diagnoses. This yielded 3 diagnoses within the internalizing spectrum (depressive, anxious-avoidant, and schizoid), 3 within the externalizing spectrum (antisocial-psychopathic, narcissistic, and paranoid), and 3 within the borderline-dysregulated spectrum (borderline, impulsive, and dependent).

To identify personality syndromes that may not have emerged using the initial selection criteria, we performed a second Q-factor analysis on patients with GAF scores ≥70. This analysis yielded 2 additional dimensions, obsessional personality and personality health, which together accounted for 29% of the variance. Factor analysis of the full (N = 950) sample yielded similar diagnoses, including the personality strengths factor, although, as in the adult sample, the data were cleaner when we were not mixing, for example, high-functioning patients with prominent aggression or hostility with lower-functioning patients with paranoia or psychopathic pathology. The factor analyses thus empirically identified 10 distinct empirically and clinically coherent personality diagnoses, plus an additional prototype representing personality health.

To develop diagnostic criteria/psychometric scales for each diagnosis, we listed the SWAP items most descriptive of each diagnosis in descending order of importance (i.e., magnitude of factor scores). Because we had obtained a hierarchical factor structure, we first needed to distinguish items most appropriate for describing each superordinate spectrum (items applicable to all disorders within the spectrum) from those most appropriate for describing specific diagnoses within the spectrum (i.e., diagnostic criteria more specific to an individual diagnosis). Decisions about item inclusion and exclusion thresholds were based on psychometric considerations, taking into account item-to-scale correlations within and between superordinate and subordinate factors. As a general procedure, we retained items for a given diagnostic scale if they were among the top 15 to 20 items with the highest factor scores on the factor; if the item-to-scale correlation

TABLE 2 Empirically Derived Spectra and Personality Syndromes (N = 950)

Disorder/Diagnostic Criteria	Item–Scale Correlation
Internalizing Spectrum	0.86
Tends to be shy or self-conscious in social situations	0.72
Tends to feel ashamed or embarrassed	0.69
Tends to be passive and unassertive	0.67
Tends to feel s/he is inadequate, inferior, or a failure	0.64
Has trouble acknowledging or expressing anger toward others, and instead becomes depressed, self-critical, self-punitive, etc. (i.e., turns anger against self)	0.63
Tends to feel guilty (e.g., may blame self or feel responsible for bad things that happen)	0.61
Tends to be inhibited or constricted; has difficulty allowing self to acknowledge or express wishes and impulses	0.61
Tends to feel anxious	0.60
Is self-critical; sets unrealistically high standards for self and is intolerant of own human defects	0.72
Tends to be insufficiently concerned with meeting own needs; appears not to feel entitled to get or ask for things s/he deserves	0.55
Tends to feel helpless, powerless, or at the mercy of forces outside his/her control (beyond what is warranted by the situation)	0.50
Has difficulty acknowledging or expressing anger	0.49
Tends to feel unhappy, depressed, or despondent	0.48
Tends to feel like an outcast or outsider	0.39
Depressive Personality	0.82
Tends to feel s/he is inadequate, inferior, or a failure	0.67
Tends to feel unhappy, depressed, or despondent	0.61
Is self-critical; sets unrealistically high standards for self and is intolerant of own human defects	0.56
Tends to feel listless, fatigued, or lacking in energy	0.55
Has trouble acknowledging or expressing anger toward others, and instead becomes depressed, self-critical, self-punitive, etc. (i.e., turns anger against self)	0.55
Tends to feel guilty (e.g., may blame self or feel responsible for bad things that happen)	0.54
Is prone to painful feelings of emptiness (e.g., may feel lost, bereft, abjectly alone even in the presence of others, etc.)	0.54
Tends to feel helpless, powerless, or at the mercy of forces outside his/her control (beyond what is warranted by the situation)	0.51
Appears to find little or no pleasure, satisfaction, or enjoyment in life's activities	0.51
Tends to feel life has no meaning	0.51
Tends to be insufficiently concerned with meeting own needs; appears not to feel entitled to get or ask for things s/he deserves	0.50
Appears conflicted about experiencing pleasurable emotions; tends to inhibit excitement, joy, pride, etc.	0.48
Tends to fear s/he will be rejected or abandoned	0.44
Tends to deny, disavow, or squelch his/her own realistic hopes, dreams, or desires to protect against anticipated disappointment (whether consciously or unconsciously)	0.44
Appears to want to "punish" self; creates situations that lead to unhappiness, or actively avoids opportunities for pleasure and gratification	0.43
Has a deep sense of inner badness; sees self as damaged, evil, or rotten to the core (whether consciously or unconsciously)	0.35
Tends to be preoccupied with death and dying	0.33
Is conflicted or inhibited about achievement or success (e.g., achievements may be below potential, may sabotage self just before attaining important goals, etc.)	0.30
Fears becoming like a parent (or parent figure) about whom s/he has strong negative feelings	0.28

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 2 Continued

Disorder/Diagnostic Criteria	Item–Scale Correlation
Anxious-Avoidant Personality	0.83
Tends to be shy or self-conscious in social situations	0.71
Tends to be passive and unassertive	0.67
Tends to feel anxious	0.66
Tends to avoid, or try to avoid, social situations because of fear of embarrassment or humiliation	0.66
Tends to feel ashamed or embarrassed	0.64
Tends to be inhibited or constricted; has difficulty allowing self to acknowledge or express wishes and impulses	0.59
Decisions and actions are unduly influenced by efforts to avoid perceived dangers; is more concerned with avoiding harm than pursuing desires	0.58
Tends to be overly compliant or obedient with authority figures	0.58
Has trouble making decisions; tends to be indecisive or to vacillate when faced with choices	0.54
Tends to ruminate; may dwell on problems, replay conversations in his/her mind, become preoccupied with thoughts about what could have been, etc.	0.53
Is troubled by recurrent obsessional thoughts that s/he experiences as intrusive	0.48
Tends to adhere rigidly to daily routines and become anxious or uncomfortable when they are altered	0.48
Has panic attacks (i.e., episodes of acute anxiety accompanied by strong physiological responses)	0.47
Tends to develop somatic symptoms in response to stress or conflict (e.g., headache, backache, abdominal pain, asthma, etc.)	0.40
Has difficulty separating from a parent (e.g., fears something terrible will happen to the parent if s/he leaves, resists going to school, cannot spend the night away from home)	0.39
Is hypochondriacal; has exaggerated fears of contracting medical illness (e.g., worries excessively about normal aches and pains)	0.36
Lacks social skills; tends to be socially awkward or inappropriate	0.32
Is unduly frightened by sexuality; appears to associate sex with danger (e.g., injury, punishment, contamination)	0.27
Schizoid Personality	0.78
Lacks social skills; tends to be socially awkward or inappropriate	0.69
Tends to be ignored, neglected, or avoided by peers	0.63
Lacks close friendships and relationships	0.62
Appearance or manner seems odd or peculiar (e.g., grooming, hygiene, posture, eye contact, speech rhythms, etc. seem somehow strange or "off")	0.52
Appears to have a limited or constricted range of emotions	0.50
Appears to have little need for human company or contact; is emotionally detached or indifferent	0.49
Tends to feel like an outcast or outsider	0.48
Tends to be bullied, harassed, or teased by peers	0.45
Seems childish for his/her age (e.g., acts like a younger child or primarily chooses younger peers)	0.43
Tends to think in concrete terms and interpret things in overly literal ways; has limited ability to appreciate metaphor, analogy, or nuance	0.41
Tends to elicit boredom in others (e.g., may talk incessantly, without feeling, or about inconsequential matters)	0.41
Appears unable to describe important others in a way that conveys a sense of who they are as people; descriptions of others come across as two-dimensional and lacking in richness	0.40
Reasoning processes or perceptual experiences seem odd and idiosyncratic (e.g., may make seemingly arbitrary inferences; may see hidden messages or special meanings in ordinary events)	0.39
Has difficulty making sense of other people's behavior; tends to misunderstand, misinterpret, or be confused by others' actions and reactions	0.37

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 2 Continued

Disorder/Diagnostic Criteria	Item–Scale Correlation
Tends to describe experiences in generalities; is reluctant to provide details, examples, or supporting narrative	0.36
Thought processes or speech tend to be circumstantial, vague, rambling, digressive, etc. (e.g., may be unclear whether s/he is being metaphorical or whether thinking is confused or peculiar)	0.36
Has little or no interest in sexuality (e.g., does not engage in age-appropriate fantasy, exploration, or experimentation, or shows little curiosity)	0.33
Appears to find little or no pleasure, satisfaction, or enjoyment in life's activities	0.32
Verbal statements seem incongruous with accompanying affect, or incongruous with accompanying non-verbal messages	0.31
Externalizing Spectrum	0.87
Is rebellious or defiant toward authority figures; tends to be oppositional, contrary, quick to disagree, etc	0.74
Tends to blame own failures or shortcomings on other people or circumstances; attributes his/her difficulties to external factors rather than accepting responsibility for own conduct or choices	0.71
Has little empathy; seems unable or unwilling to understand or respond to others' needs or feelings	0.69
Tends to be angry or hostile (whether consciously or unconsciously)	0.69
Is prone to intense anger, out of proportion to the situation at hand (e.g., has rage episodes)	0.68
Tends to be manipulative	0.64
Experiences little or no remorse for harm or injury caused to others	0.63
Attempts to avoid feeling helpless or depressed by becoming angry instead	0.61
Appears to gain pleasure or satisfaction by being sadistic or aggressive (whether consciously or unconsciously) or bullying others	0.59
Attempts to control or dominate a significant other (e.g., sibling, parent, boyfriend, girlfriend) through violence or intimidation	0.57
Tends to be critical of others	0.56
Tends to elicit dislike or animosity in others	0.51
Psychopathic-Antisocial Personality	0.91
Tends to show reckless disregard for the rights, property, or safety of others	0.74
Experiences little or no remorse for harm or injury caused to others	0.74
Takes advantage of others; has little investment in moral values (e.g., puts own needs first, uses or exploits people with little regard for their feelings or welfare, etc.)	0.73
Is rebellious or defiant toward authority figures; tends to be oppositional, contrary, quick to disagree, etc.	0.72
Tends to be deceitful; tends to lie or mislead	0.71
Appears impervious to consequences; seems unable or unwilling to modify behavior in response to threats or negative consequences	0.71
Tends to act impulsively (e.g., acts without forethought or concern for consequences)	0.69
Tends to blame own failures or shortcomings on other people or circumstances; attributes his/her difficulties to external factors rather than accepting responsibility for own conduct or choices	0.66
Tends to engage in criminal or delinquent behavior (moderate placement of this item implies occasional or petty crimes such as shoplifting or vandalism)	0.65
Has little empathy; seems unable or unwilling to understand or respond to others' needs or feelings	0.63
Tends to be manipulative	0.63
Tends to seek thrills, novelty, excitement, etc.; appears to require a high level of stimulation	0.62
Derives satisfaction or self-esteem from being, or being seen as, "bad" or "tough"	0.60

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 2 Continued

Disorder/Diagnostic Criteria	Item–Scale Correlation
Tends to be unreliable and irresponsible (e.g., may fail to meet school or work obligations)	0.60
Is prone to violence (e.g., may break things, provoke fights, or become physically assaultive)	0.60
Appears to gain pleasure or satisfaction by being sadistic or aggressive (whether consciously or unconsciously) or bullying others	0.58
Attempts to control or dominate a significant other (e.g., sibling, parent, boyfriend, girlfriend) through violence or intimidation	0.51
Repeatedly convinces others of his/her commitment to change but then reverts to previous maladaptive behavior; tends to convince others that "this time is really different"	0.42
Tends to abuse alcohol or drugs (beyond what is normative given his/her age, background, etc.)	0.42
Narcissistic Personality	0.71
Appears to feel privileged and entitled; expects preferential treatment	0.72
Has an exaggerated sense of self-importance (e.g., feels special, superior, grand; believes s/he is the object of envy; tends to boast or brag)	0.69
Tends to be dismissive, haughty, or arrogant	0.69
Tends to be controlling	0.62
Seems to treat others primarily as an audience to witness own importance, brilliance, beauty, etc.	0.59
Tends to be critical of others	0.56
Tends to be manipulative	0.56
Seeks to be the center of attention	0.55
Has little empathy; seems unable or unwilling to understand or respond to others' needs or feelings	0.54
Tends to believe s/he can only be appreciated by, or should only associate with, people who are high-status, superior, or otherwise "special"	0.53
Tends to be competitive with others (whether consciously or unconsciously)	0.48
Is invested in seeing and portraying self as emotionally strong, untroubled, and emotionally in control, despite clear evidence of underlying insecurity, anxiety, or distress	0.36
Tends to feel envious	0.32
Expects self to be "perfect" (e.g., in appearance, achievements, performance, etc.)	0.02
Tends to feel s/he is inadequate, inferior, or a failure	−0.35
Paranoid Personality	0.77
Is prone to intense anger, out of proportion to the situation at hand (e.g., has rage episodes)	0.66
Tends to blame own failures or shortcomings on other people or circumstances; attributes his/her difficulties to external factors rather than accepting responsibility for own conduct or choices	0.60
Tends to be angry or hostile (whether consciously or unconsciously)	0.60
Tends to hold grudges; may dwell on insults or slights for long periods	0.59
Tends to have extreme reactions to perceived slights or criticism (e.g., may react with rage, humiliation, etc.)	0.59
Is suspicious; tends to assume others will harm, deceive, conspire against, or betray him/her	0.52
When upset, has trouble perceiving both positive and negative qualities in the same person at the same time (e.g., may see others in black or white terms, shift suddenly from seeing someone as caring to seeing him/her as malevolent and intentionally hurtful, etc.)	0.51
Tends to feel misunderstood, mistreated, or victimized	0.50
Tends to elicit dislike or animosity in others	0.49
Manages to elicit in others feelings similar to those s/he is experiencing (e.g., when angry, acts in such a way as to provoke anger in others; when anxious, acts in such a way as to induce anxiety in others)	0.49

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 2 Continued

Disorder/Diagnostic Criteria	Item–Scale Correlation
Tends to become irrational when strong emotions are stirred up; may show a significant decline from customary level of functioning	0.47
Tends to see own unacceptable feelings or impulses in other people instead of in him/herself	0.47
Has little psychological insight into own motives, behavior, etc.	0.47
Lacks close friendships and relationships	0.35
Is preoccupied with aggressive games, fantasies, firearms, etc.	0.33
Has difficulty making sense of other people's behavior; tends to misunderstand, misinterpret, or be confused by others' actions and reactions	0.33
Tends to be ignored, neglected, or avoided by peers	0.28
When distressed, perception of reality can become grossly impaired (e.g., thinking may seem delusional)	0.27
Tends to ruminate; may dwell on problems, replay conversations in his/her mind, become preoccupied with thoughts about what could have been, etc	−0.17
Borderline/Dysregulated Spectrum	0.72
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, etc.	0.62
Emotions tend to change rapidly and unpredictably	0.60
Tends to become attached quickly or intensely; develops feelings, expectations, etc. that are not warranted by the history or context of the relationship	0.58
Is unable to soothe or comfort him/herself without the help of another person (i.e., has difficulty regulating own emotions)	0.57
Relationships tend to be unstable, chaotic, and rapidly changing	0.53
Expresses emotion in exaggerated and theatrical ways	0.53
Lacks a stable sense of who s/he is (e.g., attitudes, values, goals, and feelings about self-seem unstable or ever-changing)	0.45
Appears to fear being alone; may go to great lengths to avoid being alone	0.43
When upset, has trouble perceiving both positive and negative qualities in the same person at the same time (e.g., may see others in black or white terms, shift suddenly from seeing someone as caring to seeing him/her as malevolent and intentionally hurtful, etc.)	0.41
Tends to act impulsively (e.g., acts without forethought or concern for consequences)	0.39
Tends to be needy or dependent	0.39
Is prone to painful feelings of emptiness (e.g., may feel lost, bereft, abjectly alone even in the presence of others, etc.).	0.39
Tends to fear s/he will be rejected or abandoned	0.31
Impulsive/Histrionic Personality	0.83
Relationships tend to be unstable, chaotic, and rapidly changing	0.67
Is sexually promiscuous for a person of his/her age, background, etc.	0.64
Tends to be sexually seductive or provocative (e.g., may be inappropriately flirtatious, preoccupied with sexual conquest, prone to use his/her physical attractiveness to an excessive degree to gain notice)	0.63
Tends to choose sexual or romantic partners who seem inappropriate in terms of age, status (e.g., social, economic, intellectual), etc.	0.58
Tends to get drawn into relationships outside the family in which s/he is emotionally or physically abused, or needlessly puts self in dangerous situations (e.g., walking alone or meeting strangers in unsafe places)	0.57
Tends to become attached quickly or intensely; develops feelings, expectations, etc. that are not warranted by the history or context of the relationship	0.57
Tends to act impulsively (e.g., acts without forethought or concern for consequences)	0.56
Tends to seek thrills, novelty, excitement, etc.; appears to require a high level of stimulation	0.53
Tends to abuse alcohol or drugs (beyond what is normative given his/her age, background, etc.).	0.53
Tends to surround him/herself with peers who are delinquent or deeply alienated	0.50

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 2 Continued

Disorder/Diagnostic Criteria	Item–Scale Correlation
Tends to get involved in romantic or sexual "triangles" (e.g., becomes interested in people who are already attached, sought by someone else, etc.)	0.45
Emotions tend to change rapidly and unpredictably	0.44
Expresses emotion in exaggerated and theatrical ways	0.42
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, etc.	0.42
Tends to become attached to, or romantically interested in, people who are emotionally unavailable	0.42
Seems preoccupied with sex or sexuality in a way that is not normative for his/her age (e.g., makes constant sexualized comments, masturbates compulsively, etc.)	0.40
Lacks a stable sense of who s/he is (e.g., attitudes, values, goals, and feelings about self-seem unstable or ever-changing)	0.40
Attempts to deny or "override" fear or anxiety by rushing headlong into feared situations, taking unnecessary risks, etc.	0.34
Tends to draw others into scenarios, or "pull" them into roles, that feel alien or unfamiliar (e.g., being uncharacteristically insensitive or cruel, feeling like the only person in the world who can help, etc.)	0.28
Fantasizes about ideal, perfect love	0.28
Expresses contradictory feelings or beliefs without being disturbed by the inconsistency; has little need to reconcile or resolve contradictory ideas	0.24
Borderline Personality	0.77
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, etc.	0.62
Emotions tend to change rapidly and unpredictably	0.55
Is prone to painful feelings of emptiness (e.g., may feel lost, bereft, abjectly alone even in the presence of others, etc.)	0.51
Is unable to soothe or comfort him/herself without the help of another person (i.e., has difficulty regulating own emotions)	0.51
Tends to make repeated suicidal threats or gestures, either as a "cry for help" or as an effort to manipulate others	0.51
Tends to engage in self-mutilating behavior (e.g., self-cutting, self-burning, etc.)	0.49
Relationships tend to be unstable, chaotic, and rapidly changing	0.45
Tends to become irrational when strong emotions are stirred up; may show a significant decline from customary level of functioning	0.45
Struggles with genuine wishes to kill him/herself	0.42
Lacks a stable sense of who s/he is (e.g., attitudes, values, goals, and feelings about self seem unstable or ever-changing)	0.41
Is prone to intense anger, out of proportion to the situation at hand (e.g., has rage episodes)	0.41
Tends to become attached quickly or intensely; develops feelings, expectations, etc. that are not warranted by the history or context of the relationship	0.39
Tends to feel unhappy, depressed, or despondent	0.39
Tends to feel life has no meaning	0.39
When distressed, perception of reality can become grossly impaired (e.g., thinking may seem delusional)	0.36
Has a deep sense of inner badness; sees self as damaged, evil, or rotten to the core (whether consciously or unconsciously)	0.36
When upset, has trouble perceiving both positive and negative qualities in the same person at the same time (e.g., may see others in black or white terms, shift suddenly from seeing someone as caring to seeing him/her as malevolent and intentionally hurtful, etc.)	0.36
Tends to "catastrophize;" is prone to see problems as disastrous, unsolvable, etc.	0.32
Tends to enter altered, dissociated states when distressed (e.g., the self or world feels strange, unreal, or unfamiliar)	0.31
Is simultaneously needy of, and rejecting toward, others (e.g., craves intimacy and caring, but tends to reject it when offered)	0.31
Appears to fear being alone; may go to great lengths to avoid being alone	0.30

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 2 Continued

Disorder/Diagnostic Criteria	Item–Scale Correlation
Tends to feel misunderstood, mistreated, or victimized	0.26
Tends to fear s/he will be rejected or abandoned	0.26
Dependent/Victimized Personality	0.72
Has trouble acknowledging or expressing anger toward others, and instead becomes depressed, self-critical, self-punitive, etc. (i.e., turns anger against self)	0.58
Tends to be ingratiating or submissive with peers (e.g., may consent to things s/he does not agree with or does not want to do, in the hope of getting support or approval)	0.55
Tends to be passive and unassertive	0.54
Tends to be needy or dependent	0.51
Tends to fear s/he will be rejected or abandoned	0.49
Tends to be suggestible or easily influenced	0.45
Tends to be insufficiently concerned with meeting own needs; appears not to feel entitled to get or ask for things s/he deserves	0.44
Has difficulty acknowledging or expressing anger	0.40
Tends to feel s/he is not his/her true self with others; may feel false or fraudulent	0.40
Tends to seek out or create interpersonal relationships in which s/he is in the role of caring for, rescuing, or protecting the other	0.40
Tends to feel helpless, powerless, or at the mercy of forces outside his/her control (beyond what is warranted by the situation)	0.38
Fantasizes about ideal, perfect love	0.38
Is prone to idealizing people; may see admired others as perfect, larger than life, all wise, etc.	0.37
Tends to become attached to, or romantically interested in, people who are emotionally unavailable	0.37
Appears to fear being alone; may go to great lengths to avoid being alone	0.36
Tends to express anger in passive and indirect ways (e.g., may make mistakes, procrastinate, forget, become sulky, etc.)	0.35
Tends to choose sexual or romantic partners who seem inappropriate in terms of age, status (e.g., social, economic, intellectual), etc.	0.23
Tends to get drawn into relationships outside the family in which s/he is emotionally or physically abused, or needlessly puts self in dangerous situations (e.g., walking alone or meeting strangers in unsafe places)	0.22
Obsessional Personality	0.72
Expects self to be "perfect" (e.g., in appearance, achievements, performance, etc.)	0.61
Tends to be overly concerned with rules, procedures, order, organization, schedules, etc.	0.59
Tends to see self as logical and rational, uninfluenced by emotion; prefers to operate as if emotions were irrelevant or inconsequential	0.59
Is excessively devoted to school, work, or productivity, to the detriment of fun, pleasure, or friendships	0.58
Tends to think in abstract and intellectualized terms, even in matters of personal import	0.54
Tends to adhere rigidly to daily routines and become anxious or uncomfortable when they are altered	0.52
Tends to be inhibited or constricted; has difficulty allowing self to acknowledge or express wishes and impulses	0.51
Is self-critical; sets unrealistically high standards for self and is intolerant of own human defects	0.47
Tends to be self-righteous or moralistic	0.43
Tends to become absorbed in details, often to the point that s/he misses what is significant	0.43
Appears to have a limited or constricted range of emotions	0.41

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 2 Continued

Disorder/Diagnostic Criteria	Item–Scale Correlation
Tends to deny or disavow own need for nurturance, caring, comfort, etc. (e.g., may regard such needs as weakness, avoid depending on others or asking for help, etc.)	0.38
Tends to be competitive with others (whether consciously or unconsciously)	0.33
Is invested in seeing and portraying self as emotionally strong, untroubled, and emotionally in control, despite clear evidence of underlying insecurity, anxiety, or distress	0.32
Tends to be stingy and withholding (of time, money, affection, etc.)	0.24
Tends to be controlling	0.21
Personality Health	0.94
Finds meaning and satisfaction in the pursuit of long-term goals and ambitions	0.76
Enjoys challenges; takes pleasure in accomplishing things	0.75
Is empathic; is sensitive and responsive to other peoples' needs and feelings	0.74
Generally finds contentment and happiness in life's activities	0.74
Is capable of sustaining meaningful relationships characterized by genuine intimacy and caring	0.73
Has the capacity to recognize alternative viewpoints, even in matters that stir up strong feelings	0.73
Tends to be conscientious and responsible	0.73
Is able to use his/her talents, abilities, and energy effectively and productively	0.72
Has moral and ethical standards and strives to live up to them	0.71
Tends to be liked by other people	0.70
Is psychologically insightful; is able to understand self and others in subtle and sophisticated ways	0.69
Tends to express emotion appropriate in quality and intensity to the situation at hand	0.68
Finds meaning in belonging and contributing to a larger community (e.g., volunteer organizations, teams, neighborhood groups, church, etc.)	0.65
Is creative; is able to see things or approach problems in novel ways	0.64
Has areas of accomplishment or achievement other than school (e.g., sports, music, etc.) for which s/he gains considerable recognition	0.62
Is able to assert him/herself effectively and appropriately when necessary	0.61
Is articulate; can express self well in words	0.60
Has a good sense of humor	0.59
Appears comfortable and at ease in social situations	0.57
Tends to be energetic and outgoing	0.52

Note: The numbers corresponding to the scales represent coefficient alphas rather than item-scale correlations.

TABLE 3 Correlations Between Personality Dimensions and Dimensional *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (DSM-IV)* Personality Diagnoses (N = 950)

	Paranoid	Schizoid	Schizotypal	Antisocial	Borderline	Histrionic	Narcissistic	Avoidant	Dependent	Obsessive-Compulsive
Depressive	−0.11**	0.17**	0.09**	−0.44**	−0.01	−0.27**	−0.46**	**0.45****	0.26**	0.04
Anxious-Avoidant	−0.15**	0.20**	0.18**	−0.57**	−0.32**	−0.34**	−0.46**	**0.57****	0.30**	0.34**
Schizoid/Peer-Rejected	0.17**	**0.61****	**0.51****	−0.03	−0.13**	−0.20**	−0.07*	0.37**	−0.01	0.03
Antisocial/Psychopathic	0.21**	−0.03	−0.07*	**0.80****	0.22**	0.18**	0.47**	−0.38**	−0.25**	−0.26**
Narcissistic	0.19**	−0.06	−0.09**	0.32**	0.02	0.22**	**0.67****	−0.27**	−0.26**	0.06
Paranoid	**0.47****	0.21**	0.19**	0.41**	0.22**	0.08*	0.34**	−0.06	−0.16**	−0.13**
Impulsive/Histrionic	0.04	−0.27**	−0.14**	**0.46****	**0.59****	**0.59****	0.30**	−0.34**	0.08*	−0.28**
Borderline	0.20**	−0.04	0.10**	0.12**	**0.68****	0.38**	0.09**	0.01	0.25**	−0.17**
Dependent/Victimized	−0.28**	−0.14**	−0.10**	−0.43**	−0.04	−0.01	−0.41**	0.27**	**0.45****	−0.04
Obsessional	0.00	0.24**	0.11**	−0.33**	−0.39**	−0.34**	−0.05	0.18**	−0.14**	**0.54****
Internalizing Spectrum	−0.21**	0.17**	0.10**	−0.58**	−0.27**	−0.39**	−0.55**	**0.53****	0.24**	0.12**
Externalizing Spectrum	**0.33****	0.05	−0.01	**0.60****	0.19**	0.15**	**0.50****	−0.30**	−0.29**	−0.17**
Dysregulated Spectrum	0.04	−0.25**	−0.10**	0.15**	**0.63****	**0.54****	0.13**	−0.13**	0.32**	−0.23**
Personality Health	−0.40**	−0.32**	−0.33**	−0.49**	−0.47**	−0.29**	−0.38**	−0.16**	−0.16**	0.07*

Note: Strongest predicted correlations noted in boldface type. DSM-IV dimensional diagnoses are aggregated measures of number of diagnostic criteria met and 5-point construct ratings for each disorder.
**Correlation is significant at the level of p = .01; **Correlation is significant at the level of p = .001.*

was ≥0.30; and if inclusion of the item did not reduce scale reliability (coefficient alpha ≧0.70). We resolved ambiguous decisions conceptually (i.e., retaining items/diagnostic criteria if they were consistent with the broader construct).

Table 2 presents the diagnostic criteria for the superordinate spectra and personality diagnoses. All spectra and diagnoses showed high (>0.70) to very high (>0.85) internal consistency (Cronbach's α), with a range of 0.71 to 0.94 and a median of 0.80. The diagnostic dimensions showed very strong discriminant validity (low comorbidity), with an average correlation of r = −0.04 between any 2 diagnostic scales. The internalizing and externalizing clusters were highly distinct. The median correlation of internalizing disorders with disorders outside the internalizing spectrum was r = −0.43; the median correlation of externalizing disorders with those outside the externalizing spectrum was r = −0.25; and the median correlation of borderline/dysregulated disorders outside the cluster was r = −0.06. Even within each spectrum, where diagnostic overlap is expected (because the constructs are disorders within the same spectrum), the average correlations were r = 0.26, 0.44, and 0.15, respectively.

Table 3 reports initial evidence for validity of the disorders, correlating them with aggregated dimensional measures of the *DSM-IV* PDs. Although the data using the number of *DSM-IV* symptoms met per disorder were highly similar, we averaged the number of symptoms met for each disorder with the construct ratings for each disorder (clinicians' overall 5-point judgments of how well their patient "fit" the global description of the disorder in the text of the *DSM*) to produce aggregated criterion variables, for 2 reasons. First, to what extent the specific *DSM-IV* criteria for PDs, which were derived for and from adult samples, are optimal for adolescents is unknown. The construct ratings provide a measure independent of the specific criteria. Second, from a psychometric perspective, aggregation of 2 measures of the same construct tends to produce more reliable estimates of the construct than a single measure. As can be seen from Table 3, the empirically derived disorders showed high preliminary evidence of validity. Correlations in boldface type reflect the correlations for each scale that we expected to be the highest. For example, the empirically derived narcissistic diagnosis correlated r = 0.67 with narcissistic PD (more than double its correlation with antisocial PD, even though the 2 *DSM* constructs are highly

TABLE 4 Correlations Between Personality Dimensions and Child Behavior Checklist (CBCL) Scale Scores (N = 122)

	Withdrawn	Somatic Complaints	Anxious/ Depressed	Social Problems	Thought Problems	Attention Problems	Delinquent Behavior	Aggressive Behavior	Sex Problems	Total Problems	Internalizing	Externalizing
Depressive	0.35**	0.16	**0.52****	−0.06	0.06	−0.16	−0.38**	−0.52**	−0.12	−0.14	**0.46****	−0.51**
Anxious-Avoidant	**0.30****	0.24**	**0.51****	0.05	0.35**	−0.05	−0.53**	−0.60**	0.05	−0.09	**0.48****	−0.61**
Schizoid/Peer-Rejected	**0.41****	0.09	0.12	**0.64****	**0.16**	**0.34****	−0.04	0.02	−0.03	0.31**	**0.26****	−0.01
Antisocial/Psychopathic	−0.12	−0.17	−0.50**	0.09	−0.24**	0.22*	**0.67****	**0.67****	−0.03	0.28**	−0.38**	**0.72****
Narcissistic	−0.23*	−0.15	−0.38**	−0.07	−0.21*	−0.09	0.25**	**0.38****	0.01	0.01	−0.34**	**0.35****
Paranoid	0.15	0.03	−0.15	0.36**	−0.04	0.30**	0.35**	**0.59****	−0.04	0.45**	−0.02	**0.53****
Impulsive/Histrionic	−0.21*	−0.08	−0.16	−0.10	−0.10	0.13	**0.49****	**0.44****	**0.09**	0.21*	−0.20*	0.49**
Borderline	0.09	0.19*	0.25**	0.04	−0.01	0.08	0.27**	0.36**	−0.02	**0.37****	0.20*	0.33**
Dependent/Victimized	0.12	−0.02	**0.43****	−0.08	0.05	−0.19*	−0.29**	−0.46**	0.06	−0.16	0.28**	−0.43**
Obsessional	0.12	**0.01**	**0.19***	−0.16	0.15	−0.15	−0.44**	−0.46**	−0.01	−0.29**	0.16	−0.47**
Internalizing Spectrum	0.32**	0.10	0.49**	−0.03	0.08	−0.18*	−0.52**	−0.64**	−0.10	−0.23*	**0.43****	−0.63**
Externalizing Spectrum	−0.01	−0.09	−0.40**	0.19*	−0.23**	0.18*	0.49**	0.68**	−0.07	0.31**	−0.26**	**0.65****
Dysregulated Spectrum	−0.10	0.08	0.16	0.00	−0.06	0.09	0.21*	0.32**	0.01	**0.27****	0.05	0.28**
Personality Health	−0.36**	−0.14	−0.08	−0.40**	−0.06	−0.42**	−0.45**	−0.52**	−0.09	**−0.60****	−0.22*	−0.52**

Note: Strongest predicted correlations noted in boldface type.
*Correlation is significant at the level of p = .01; **Correlation is significant at the level of p = .001.

correlated). Similarly, the empirically derived borderline diagnosis correlated r = 0.68 with borderline PD, roughly half as much with histrionic PD, and only minimally with antisocial PD, whereas the 3 *DSM-IV* diagnoses tend to intercorrelate around r = 0.50.

Table 4 reports the correlations between the SWAP-II-A traits and CBCL scale scores on the subset of the sample on which we collected the CBCL. With only a handful of exceptions, the pattern of correlations showed strong convergence and divergence as expected, despite very different item sets (e.g., schizoid personality with the CBCL Withdrawn scale). For example, SWAP internalizing and externalizing correlated strongly with CBCL internalizing and externalizing, respectively, as did the subordinate spectrum disorders. Borderline/dysregulated correlated positively with CBCL Total Problems, whereas Psychological Health showed strong negative correlations with CBCL Total Problems.

The major limitation of these findings is that the personality data used to derive the diagnoses empirically and the criterion variables (*DSM* dimensional diagnoses and CBCL variables) were provided by the same informant, the patient's treating clinician, raising the question of the extent to which their convergence is in part artifactual. Although this is a reasonable question, multiple studies have found that data (including SWAP data) from clinicians who know patients over time in clinical settings are highly predictive of independent data ascertained from the patient, and by other informants and skilled interviewers blinded to the data provided by the treating clinician.[19,35,65-67] Furthermore, on instruments such as the SWAP-II-A and the CBCL, clinicians were asked to make hundreds of judgments about highly specific cognitive, affective, or behavioral processes, and the data were aggregated using scales of which they were unaware. This was particularly the case with the SWAP-II-A disorders, which were derived from the data from this study, and thus completely unfamiliar to clinicians. Nevertheless, the optimal method of assessing validity is to measure personality from 1 observer and criterion variables from a different observer.

Study 2

We applied the scales derived from the factor analysis in study 1 to the SWAP-II-A data provided by the 2 independent doctoral-level (PhD or MD) raters. Despite the small sample and likelihood of type II error, agreement was

TABLE 5 Correlations Between Personality Dimensions and Child Behavior Checklist (CBCL) Scale Scores in an Intensive Day Treatment Program (N = 32)

	Withdrawn	Somatic Complaints	Anxious/ Depressed	Social Problems	Thought Problems	Attention Problems	Delinquent Behavior	Aggressive Behavior	Sex Problems	Total Problems	Internalizing	Externalizing
Depressive	0.60***	0.38*	**0.65*** **	−0.19	0.26	−0.12	−0.60***	−0.60***	−0.10	−0.04	**0.69*** **	−0.64***
Anxious-Avoidant	**0.68*** **	0.51**	**0.64*** **	0.13	0.45*	0.13	−0.75***	−0.71***	−0.24	0.05	**0.77*** **	−0.75***
Schizoid/Peer-Rejected	**0.53****	0.20	0.07	**0.59*** **	**0.65****	**0.56*** **	−0.22	−0.19	−0.13	0.26	**0.30**	−0.20
Antisocial/Psychopathic	−0.47**	−0.56***	−0.55***	0.19	−0.32	0.14	**0.91*** **	**0.79*** **	0.35	0.26	−0.64***	**0.87*** **
Narcissistic	−0.33	−0.19	−0.43*	−0.34	−0.55***	−0.33	0.47**	**0.36***	0.12	−0.14	−0.42*	**0.40***
Paranoid	−0.12	−0.44*	−0.25	0.37*	0.07	0.37*	0.32	**0.57*** **	0.15	0.33	−0.30	**0.51****
Impulsive/Histrionic	−0.59***	−0.28	−0.30	−0.04	−0.44*	−0.01	**0.62*** **	**0.65*** **	**0.42***	0.13	−0.49**	**0.67*** **
Borderline	0.05	0.14	0.37*	0.00	0.01	0.04	−0.25	0.07	0.15	**0.21**	0.25	−0.06
Dependent/Victimized	0.27	0.56***	**0.40***	0.10	0.13	−0.04	−0.52**	−0.58***	−0.14	−0.15	0.45**	−0.58***
Obsessional	0.26	**0.05**	**−0.13**	−0.39*	0.04	−0.42*	−0.3	−0.38*	−0.38*	−0.41*	0.04	−0.37*
Internalizing Spectrum	0.66***	0.41*	0.64***	−0.04	0.41*	−0.03	−0.77***	−0.77***	−0.32	−0.13	**0.72*** **	−0.81***
Externalizing Spectrum	−0.42*	−0.55**	−0.54***	0.14	−0.43*	0.09	0.80***	0.81**	0.34	0.23	−0.61***	**0.84*** **
Dysregulated Spectrum	−0.21	0.15	0.24	0.08	−0.23	0.05	−0.04	0.21	0.2	**0.21**	0.08	0.12
Personality Health	−0.37*	−0.09	−0.26	−0.61**	−0.32	−0.62***	−0.10	−0.29	−0.33	**−0.68****	−0.31	−0.24

Note: Strongest predicted correlations noted in boldface type.
*Correlation is significant at the level of p = .05; **Correlation is significant at the level of p = .01; ***Correlation is significant at the level of p ≤ .001.

substantial between observers, with a median cross-observer correlation of r = 0.67 and a mean of 0.63 (SD = 0.15). All of the cross-observer correlations were significant at the 0.05 level, with the exception of dependent/victimized (r [26] = 0.37, p = .06). Cross-cluster correlations were once again negligible or negative.

We then created mean scores across rater pairs on all measures to maximize reliability. The following results use these averaged scores. Table 5 presents the correlations between the SWAP-II-A dimensions and the CBCL scale scores. Despite the small sample, we largely replicated the results from study 1, with the exceptions of the absence of correlations between CBCL Total Problems and the SWAP borderline and SWAP dysregulated scales, and SWAP schizoid and CBCL internalizing. All other predicted correlations were strong and, in a number of cases, even stronger than those found in the larger sample.

The cross-observer correlations between SWAP-II-A personality dimensions and ward ratings of interpersonal behavior using the CIRCLE were also consistent with our expectations. For example, SWAP anxious-avoidant personality correlated with CIRCLE withdrawn (r [30] = 0.55, p = .001), Submissive (r [30] = 0.57, p = .001), and Compliant (r [30] = 0.52, p = .002); SWAP antisocial/psychopathic correlated with CIRCLE coercive (r [30] = 0.42, p = .02) and hostile (r [30] = 0.47, p = .006). The SWAP Personality Health dimension positively correlated with CIRCLE friendly (r [30] = 0.38, p = .03) and sociable (r [30] = 0.38, p = .03). Consistent with these findings, the SWAP Personality Health dimension and the global adaptive functioning scale of the CDF were strongly correlated (r [30] = 0.70, p < .001).

DISCUSSION

We derived 10 constellations of adolescent personality pathology with a large sample. The disorders identified are highly similar to disorders identified in a parallel study using a large sample of 1,201 adult patients,[19] although the diagnostic criteria reflected age-appropriate differences. The major difference between the adult and adolescent disorders was the identification of an impulsive/histrionic PD in adolescents, which has more aggressive and antisocial features than the hysteric/histrionic personality style that we identified in adults. The 10 diagnoses we identified also included versions of all 7 adolescent

personality constellations that we identified several years ago using a much smaller sample (N = 296), an earlier version of the SWAP-II-A (the SWAP-200-A), and different factor-analytic procedures.[24] The convergence of the current findings with both our most recent adult sample and our earlier adolescent sample suggests the robustness of these diagnoses across samples and statistical procedures.

Of particular note is the hierarchical factor structure with superordinate internalizing, externalizing, and borderline-dysregulated factors. These groupings provide an empirically based alternative to the *DSM-5* approach of grouping personality disorders into "clusters" A, B, and C, which were derived post hoc and show high comorbidity within and across clusters, unlike our 3 spectra. Adolescents with internalizing spectrum pathology are self-blaming and chronically prone to depression and anxiety. Adolescents on the externalizing spectrum blame others and are chronically prone to anger and aggression. Patients with borderline/dysregulated personality disorders are marked by unstable and age-inappropriate deficits in perceptions of themselves and others and capacities to regulate their impulses and emotions. Teens on the borderline-dysregulated spectrum are qualitatively distinct from stable internalizers or externalizers, although the dependent/victimized dimension appears on the internalizing "border" of the borderline-dysregulated spectrum, whereas the impulsive/histrionic dimension appears to represent the externalizing border.

The identification of internalizing and externalizing spectra is consistent with a rich literature on childhood and adolescent disorders,[72] well known from thousands of studies using the CBCL, and with recent findings on adult psychopathology obtained using very different research methods, item sets, and data-analytic approaches.[73,74] The convergence across different methodological approaches suggests that internalizing and externalizing pathology are crucial personality constructs that help to link pathology previously placed on axis I with its personality substrates. For example, adolescents with internalizing personality pathology are vulnerable to mood and anxiety disorders, whereas those with externalizing personality pathology are prone to substance abuse, delinquency, and antisocial behavior. Identification of a borderline-dysregulated spectrum is a unique finding that we have consistently obtained in factor-analytic and Q-factor–analytic studies of adolescents and adults. This likely reflects the advantages of an item set capable of distinguishing between patients with stably high negative emotionality and those with poorly regulated and highly variable emotions, impulses, and perceptions of self and others, whom research demonstrates to be genetically distinct as well.[75,76]

Aside from these 3 spectra and 9 disorders, we identified 2 additional personality constellations. The first is an obsessional personality syndrome, highly similar to a dimension that we identified in both our past and recent adult data sets,[37] which we labeled in those studies as a "neurotic style"[77] because patients who match this diagnostic dimension may or may not show a level of dysfunction that warrants the term personality *disorder*. Identification of this syndrome resolves a problem that has existed since the development of the *DSM-III* that is the same for adolescents and adults. Obsessive-compulsive PD is the only PD in the *DSM* that tends to correlate positively with measures of healthy adaptive functioning (as it did in the present study). The reason is clear: The framers of the *DSM-III* had to "ratchet up" the level of pathology of this personality style (called obsessional in both the clinical literature and the diagnostic manual until the publication of the *DSM-III*) to fit into a classification of personality disorders. The result was an obsessive-compulsive personality diagnosis incongruent with clinical and empirical reality.

Factor analysis also yielded a Personality Health dimension, which we also found in our past and current studies of both adolescent and adult personality. This dimension may be of particular clinical utility, because the degree of match between the patient and this dimension can help to clarify where the patient falls on a continuum of functioning, irrespective of diagnosis or personality style. Prior research has shown that inclusion of a personality health dimension substantially increases predictive validity of personality diagnosis.[54]

Although the 10 diagnoses maintain substantial continuity with the *DSM-5*, they differ in some key respects. For example, they all describe multifaceted syndromes encompassing multiple domains of functioning, including cognition, affect, interpersonal relations, impulse regulation, and affect regulation. The "General Personal Disorder" criteria that now introduce the PDs in the *DSM-5* define PDs in terms of multiple domains of functioning; however, most of the

DSM-5 criterion sets only include 1 or 2 of them. For example, the criteria for antisocial PD emphasize antisocial behaviors but leave out many of the core psychological features essential to Cleckley's[78] conceptualization of psychopathy and instruments derived from it that similarly make use of expert clinical observers, such as externalization of blame,[79,80] features that are central to conceptualizations of fledgling psychopathy in adolescents.[81-83]

Another aspect of the syndromes described here is that they solve a problem inherent in the *DSM-5*. From a strictly mathematical perspective, criterion sets of only 8 to 9 items cannot delineate distinct disorders and also retain fidelity to the multidimensional constructs that they are intended to describe.[25] Some personality characteristics are central to more than 1 personality disorder (e.g., lack of empathy in narcissistic and antisocial PDs; hostility in paranoid, antisocial, and narcissistic PDs). As the *DSM* is currently configured, including the same item in more than 1 criterion set gives rise to high rates of "comorbidity," but arbitrarily excluding items from 1 disorder results in clinically inaccurate descriptions. The data here suggest that the problem of comorbidity is not inherent in personality diagnosis but is an artifact of brief criterion sets that do not capture the complexity of real-life personality syndromes and the nonempirical derivation of diagnoses and diagnostic criteria.

The validity data from studies 1 and 2 provide initial support for the convergent and discriminant validity of the diagnoses. Not only did the disorders demonstrate substantially less redundancy in their cross-correlations with each other than did the *DSM* disorders as applied in either adolescent or adult samples, but they also showed a similar lack of redundancy in their correlations with 4 very different sets of criterion variables: PD dimensional scores, CBCL scale scores in 2 samples, cross-observer diagnoses, and ratings of actual ward behavior. Virtually all SWAP dimensions showed strong evidence of both convergent and discriminant validity, correlating strongly with related constructs and weakly, not at all, or negatively with unrelated constructs or with dimensions that one would expect to be low if the patient were high on the SWAP dimension (e.g., obsessional personality, which is associated with both anxiety and excessive devotion to order and rules, was strongly negatively correlated with psychopathic-antisocial personality).

The cross-observer correlations are particularly noteworthy because they are not traditional reliability statistics, for which one would hope for correlations greater than $r = 0.70$ to 0.80; rather, they are validity coefficients (correlations between 2 independent observers, based on different sources of data, not the same structured interview), which are typically closer to $r = 0.30$ in the PD research literature.[84] The fact that most of these cross-observer correlations were significant at $p < .001$ in study 2 despite the small sample size is striking; the same is true of the CBCL correlations, which were also remarkably similar across 2 very different samples with completely different methods.

In sum, the findings of these studies suggest that personality diagnoses can be identified empirically in adolescents, and that they strongly resemble similar diagnoses in adults, although they also show developmental differences as seen from the items in Table 2. Furthermore, clinicians can diagnose patients with high cross-observer consistency using the SWAP-II-A, and these diagnoses predict highly relevant criterion variances, as assessed by their convergence and divergence not only with well-validated instruments but also with reliable clinician ratings of on-unit behavior. Along with the longitudinal data by Cohen *et al.*, the data suggest that the caution against PD diagnoses in adolescents that has been tempered somewhat between the last 2 editions of the *DSM* should be reconsidered in the *DSM-5*.

The major limitations of this research are as follows. First, the data are cross-sectional, not longitudinal. Although the resemblance to adult personality syndromes identified empirically in similar research suggests that adolescents show similar forms of personality disturbance as adults, whether a given adolescent is likely to retain the same diagnosis over time is unknown and should be studied in future research. The second major limitation is the small sample size in study 2, although, as noted above, most of the correlations were so high where predicted that they were significant at the 0.01 or 0.001 level. Nevertheless, further research is needed to replicate these findings with a substantially larger sample and range of instruments, using a multi-observer design including data from research interviews, treating clinicians, parents, teachers, neuroimaging, and molecular genetics. Third, future studies should replicate findings using broader selection criteria (e.g., "the last patient seen last week") to avoid any potential bias toward patients who have

characteristics similar to the *DSM-5* PDs. We attempted, however, to mitigate any such bias in this study by specifically instructing clinicians to include a randomly selected patient with "personality problems" and not to limit themselves to PDs. Finally, for research purposes in clinical settings, researchers should use a systematic clinical interview with teenagers and their parents, resembling the kind of interviewing that seasoned adolescent clinicians use in evaluating adolescents in everyday practice to maximize reliability and validity of diagnosis using the SWAP-II-A. An interview of this sort shows high reliability and validity in adults,[67] and future research should apply an adolescent version along with multiple measures of such factors as psychopathology, adaptive functioning, and genetics and epigenetics. &

CG Clinical Guidance

- Personality disorders resembling adult personality disorders exist in adolescents as young as 13 years of age. They are best conceptualized dimensionally, however, by evaluating the extent to which the patient's personality resembles a given disorder.
- Forms of personality pathology identified empirically resemble what clinicians see every day, and can be diagnosed readily in practice using clinically richer descriptions than in the *DSM-5* by assessing the extent to which a patient matches a prototype description of a given disorder (e.g., a paragraph-length description of an adolescent with antisocial/psychopathic traits).
- Understanding and treating adolescent personality pathology is essential for understanding and treating problems such as depression, delinquent behavior, and substance abuse in adolescents, to which personality confers vulnerability or resilience.
- Personality health is as important to diagnose as personality pathology, both clinically and empirically. Our patients are our collaborators, and knowing their strengths is as important as knowing what we need to help them change.

Accepted March 7, 2014.

Drs. Westen and DeFife are with Emory University; Dr. Malone is with Massachusetts General Hospital and Harvard Medical School; Dr. DiLallo is with New York University School of Medicine and New York City Administration for Children's Services.

This research was supported by National Institute of Mental Health (NIMH) grants R01-MH62378 and R01-MH78100.

The authors express their gratitude to the 950 clinicians who provided data in Study 1 and to the mental health professionals who provided ratings of ward behavior in Study 2. The authors also acknowledge the kind contributions of Daniel Medeiros, MD, and Shilpa Taufique, PhD, of Mount Sinai Health System, for their expert cross-ratings on the adolescent day treatment sample. Finally, the authors thank Jonathan Shedler, PhD, of the University of Colorado, School of Medicine, for his methodological advice at various stages of the research, for his work in co-developing the SWAP-II-A, and for his work in co-developing the statistical procedures the authors used for constructing the prototypes and scales in a corresponding adult sample.

Drs. Westen, DeFife, Malone, and DiLallo report no biomedical financial interests or potential conflicts of interest.

Correspondence to Drew Westen, PhD, Department of Psychology and Psychiatry, Emory University, 36 Eagle Row, Atlanta, GA, 30322; e-mail: dwesten@emory.edu

http://dx.doi.org/10.1016/j.jaac.2013.12.030

REFERENCES

1. Becker DF, Grilo CM, Morey LC, Walker ML, Edell WS, McGlashan TH. Applicability of personality disorder criteria to hospitalized adolescents: evaluation of internal consistency and criterion overlap. J Am Acad Child Adolesc Psychiatry. 1999;38:200-205.
2. Bernstein DP, Cohen P, Velez CN, Scwab-Stone M, Seiver LJ, Shinsato L. Prevalence and stability of DSM-II-R personality disorders in a community based survey of adolescents. Am J Psychiatry. 1993;150:1237-1243.
3. Mattanah JJ, Becker DF, Levy KN, Edell WS, McGlashan TH. Diagnostic stability in adolescents followed up 2 years after hospitalization. Am J Psychiatry. 1995;152:889-894.
4. Crawford TN, Cohen P, First MB, Skodol AE, Johnson JG, Kasen S. Comorbid axis I and axis II disorders in early adolescence: outcomes 20 years later. Arch Gen Psychiatry. 2008;65:641-648.
5. Ludolph P, Westen D, Misle B, Jackson A, Wixom J, Wiss FC. The borderline diagnosis in adolescents: symptoms and developmental history. Am J Psychiatry. 1990;147:470-476.
6. Westen D, Dutra L, Shedler J. Assessing adolescent personality pathology: quantifying clinical judgment. Br J Psychiatry. 2005; 186:227-238.
7. Feenstra DJ, Busschbach JJV, Verheul R, Hutsebaut J. Prevalence and comorbidity of axis I and axis II disorders among treatment refractory adolescents admitted for specialized psychotherapy. J Personal Disord. 2011;25:842-850.
8. Chanen A, Jackson HJ, McGorry PD, Allot KA, Clarkson V, Yuen HP. Two-year stability of personality disorder in older adolescent outpatients. J Personal Disord. 2004;18:526-541.
9. Cohen DJ, Crawford T, Johnson JG, Kasen S. The children in the community study of the developmental course of personality disorder. J Personal Disord. 2005;19:468-486.
10. Johnson JG, Cohen P, Kasen S, Skodol AE, Hamagami F, Brook JS. Age-related change in personality disorder trait levels between early adolescence and adulthood: a community-based longitudinal investigation. Acta Psychiatr Scand. 2001;102:265-275.
11. Westen D. A clinical-empirical model of personality: life after the Mischelian ice age and the NEO-lithic era. J Personal. 1995;63:495-524.
12. Mischel W, Shoda Y. Toward a unified theory of personality: integrating dispositions and processing dynamics within the cognitive-affective processing system. In: John OP, Robins RW, Pervin LA, eds. Handbook of Personality: Theory and Research. 3rd ed. New York: Guilford Press; 2008:208-241.
13. Crick NR, Murray, Close D, Woods K. Borderline personality features in childhood: a short-term longitudinal study. Dev Psychopathol. 2005;17:1051–1070.

14. Skodol AE, Johnson JG, Cohen P, Sneed JR, Crawford TN. Personality disorder and impaired functioning from adolescence to adulthood. Br J Psychiatry. 2007;190:415-420.
15. Levy KN, Becker DF, Grilo CM, *et al*. Concurrent and predictive validity of the personality disorder diagnosis in adolescent patients. Am J Psychiatry. 1999;156:1522-1528.
16. Daley SE, Rizzo CJ, Gunderson BH. The longitudinal relation between personality disorder symptoms and depression in adolescence: the mediating role of interpersonal stress. J Personal Disord. Aug 2006;20:352-368.
17. Crawford TN, Shaver PR, Cohen P, Pilkonis PA, Gillath O, Kasen S. Self-reported attachment, interpersonal aggression, and personality disorder in a prospective community sample of adolescents and adults. J Personal Disord. 2006;20:331-351.
18. Grilo CM, McGlashan TH, Quinlan DM, Walker ML, Greenfeld D, Edell WS. Frequency of personality disorders in two age cohorts of psychiatric inpatients. Am J Psychiatry. 1998; 155:140-142.
19. Westen D, Shedler J, Bradley B, DeFife JA. An empirically derived taxonomy for personality diagnosis: bridging science and practice in conceptualizing personality. Am J Psychiatry. 2012;169:273-284.
20. Pilkonis PA, Hallquist MN, Morse JQ, Stepp SD. Striking the (im) proper balance between scientific advances and clinical utility: commentary of the DSM-5 proposal for personality disorders. Personal Disord. 2011;2:68-82.
21. Skodol AE, Clark LA, Bender DS, *et al*. Proposed changes in personality and personality disorder assessment and diagnosis for DSM-5 part 1: description and rationale. Personal Disord. 2011; 2:4-22.
22. Achenbach T. Manual for the Child Behavior Checklist/4-18 and 1991 profile. Burlington, VT: University of Vermont, Department of Psychiatry; 1991.
23. Westen D, Shedler J. Personality diagnosis with the Shedler-Westen Assessment Procedure (SWAP): integrating clinical and statistical measurement and prediction. J Abnorm Psychol. 2007; 116:810-822.
24. Westen D, Shedler J, Durrett C, Glass S, Martens A. Personality diagnosis in adolescence: DSM-IV axis II diagnoses and an empirically derived alternative. Am J Psychiatry. 2003;160:952-966.
25. Westen D, Shedler J. Revising and assessing axis II, part 1: developing a clinically and empirically valid assessment method. Am J Psychiatry. 1999;156:258-272.
26. Westen D, Muderrisoglu S, Fowler C, Shedler J, Koren D. Affect regulation and affective experience: individual differences, group differences, and measurement using a Q-sort procedure. J Consult Clin Psychol. 1997;65:429-439.
27. Hilsenroth MJ, Ackerman SJ, Blagys MD, *et al*. Reliability and validity of DSM-IV axis V. Am J Psychiatry. 2000;157: 1858-1863.
28. DeFife JA, Malone JC, DiLallo J, Westen D. Assessing adolescent personality disorders using the Shedler-Westen Assessment Procedure-Adolescent Version (SWAP-II-A). Clin Psychol. 2013;20: 393-407.
29. Dutra L, Campbell L, Westen D. Quantifying clinical judgment in the assessment of adolescent psychopathology: reliability, validity, and factor structure of the Child Behavior Checklist for Clinician-Report. J Clin Psychol. 2004;60:65-85.
30. Russ E, Heim A, Westen D. Parental bonding and personality pathology assessed by clinician report. J Personal Disord. 2003;17: 522-536.
31. Wilkinson-Ryan T, Westen D. Identity disturbance in borderline personality disorder: an empirical investigation. Am J Psychiatry. 2000;157:528-541.
32. Parker G, Tupling H, Brown LB. A parental bonding instrument. Br J Med Psychol. 1979;52:1-10.
33. DeFife JA, Drill R, Nakash O, Westen D. Agreement between clinician and patient ratings of adaptive functioning and developmental history. Am J Psychiatry. 2010;167(12):1472-1478.
34. Westen D, Dutra L, Shedler J. Assessing adolescent personality pathology: quantifying clinical judgment. Br J Psychiatry. 2005; 186:227-238.
35. Westen D, Muderrisoglu S. Reliability and validity of personality disorder assessment using a systematic clinical interview: evaluating an alternative to structured interviews. J Personal Disord. 2003;17:350-368.
36. DeFife JA, Westen D. Empirically-informed clinical interviewing for personality disorders. In: Levy R, Ablon J, Kächele H, eds. Psychodynamic Psychotherapy Research: Evidence-Based Practice and Practice-Based Evidence. New York: Springer; 2012: 553-569.
37. Blagov P, Westen D. Questioning the coherence of histrionic personality disorder: borderline and hysterical personality subtypes in adults and adolescents. J Nerv Ment Dis. 2008;196:785-797.
38. DiLallo JD, Jones M, Westen D. Personality subtypes in disruptive adolescent males. J Nerv Ment Dis. 2009;197:15-23.
39. Hinrichs J, DeFife JA, Westen D. Personality subtypes in adolescent and adult children of alcoholics: a two-part study. J Nerv Ment Dis. 2011;199:487-498.
40. Powers AD, Westen D. Personality subtypes in adolescents with panic disorder. Clin Child Psychol Psychiatry. 2011;16:551-565.
41. Nakash-Eisikovits O, Dutra L, Westen D. Relationship between attachment patterns and personality pathology in adolescents. J Am Acad Child Adolesc Psychiatry. 2002;41:1111-1123.
42. Westen D, Shedler J. Revising and assessing axis II, part 2: toward an empirically based and clinically useful classification of personality disorders. Am J Psychiatry. 1999;156:273-285.
43. Shedler J, Westen D. Dimensions of personality pathology: an alternative to the five factor model. Am J Psychiatry. 2004;161: 1743-1754.
44. Shedler J, Westen D. Refining personality disorder diagnoses: integrating science and practice. Am J Psychiatry. 2004;161: 1350-1365.
45. Morey LC. Personality disorders in DSM-III and DSM-III-R: convergence, coverage, and internal consistency. Am J Psychiatry. 1988;145:573-577.
46. Blais M, Norman D. A psychometric evaluation of the DSM-IV personality disorder criteria. J Personal Disord. 1997;11:168-176.
47. Achenbach T. Manual for the Teacher's Report Form and 1991 Profile. Burlington, VT: University of Vermont, Department of Psychiatry; 1991.
48. Achenbach T. Manual for the Youth Self-Report. Burlington, VT: University of Vermont, Department of Psychiatry; 1991.
49. Achenbach TM. Manual for the Child Behavior Checklist/4-18 and 1991 Profile. Burlington: University of Vermont, Department of Psychiatry; 1991.
50. Achenbach TM, Rescorla LA. Manual for the ASEBA School-Age Forms and Profiles. Burlington, VT: University of Vermont Research Center for Children, Youth, and Families; 2001.
51. Block J. The Q-Sort Method in Personality Assessment and Psychiatric Research. Palo Alto, CA: Consulting Psychologists Press; 1978.
52. Westen D, Shedler J. A prototype matching approach to diagnosing personality disorders toward DSM-V. J Personal Disord. 2000;14:109-126.
53. Ortigo KM, Bradley B, Westen D. An empirically based prototype diagnostic system for DSM-V and ICD-11. In: Millon T, Krueger R, Simonsen E, eds. Contemporary Directions in Psychopathology: Scientific Foundations of the DSM-V and ICD-11. New York: Guilford; 2010:374-390.
54. Westen D, Shedler J, Bradley R. A prototype approach to personality disorder diagnosis. Am J Psychiatry. 2006;163:846-856.
55. Westen D, DeFife JA, Bradley B, Hilsenroth MJ. Prototype personality diagnosis in clinical practice: a viable alternative for DSM-5 and ICD-11. Prof Psychol. 2010;41:482-487.
56. Kim NS, Ahn W. Clinical psychologists' theory-based representations of mental disorders predict their diagnostic reasoning and memory. J Exp Psychol. 2002;131:451-476.
57. Cantor N, Genero N. Psychiatric diagnosis and natural categorization: a close analogy. In: Millon T, Klerman GL, eds. Contemporary directions in psychopathology: toward the DSM-IV. New York, NY: Guilford; 1986:233-256.
58. Rosch E, Mervis CB. Family resemblances: studies in the internal structure of categories. Cogn Psychol. 1975;7:573-605.
59. Ahn W. Effect of causal structure on category construction. Memory Cognition. 1999;27:1008-1023.
60. Horowitz LM, Post DL, de Sales French R, Wallis KD, Siegelman EY. The prototype as a construct in abnormal psychology: 2. Clarifying disagreement in psychiatric judgments. J Abnorm Psychol. 1981;90:575-585.
61. Pilkonis PA. Personality prototypes among depressives: themes of dependency and autonomy. J Personal Disord. 1988;2:144-152.

62. Blashfield R. Exemplar prototypes of personality disorder diagnoses. Comp Psychiatry. 1985;26:11-21.
63. Zimmerman M. Diagnosing personality disorders: a review of issues and research methods. Arch Gen Psychiatry. 1994;51:225-245.
64. Lobbestael J, Leurgans M, Arntz A. Inter-rater reliability of the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID I) and Axis II Disorders (SCID II). Clin Psychol Psychother. 2011; 18:75-79.
65. Blagov PS, Bi W, Shedler J, Westen D. The Shedler-Westen Assessment Procedure (SWAP): evaluating psychometric questions about its reliability, validity, and impact of its fixed score distribution. Assessment. 2012;19:370-382.
66. DeFife JA, Drill R, Nakash O, Westen D. Agreement between clinician and patient ratings of adaptive functioning and developmental history. Am J Psychiatry. 2010;167:1472-1478.
67. Westen D, Muderrisoglu S. Clinical assessment of pathological personality traits. Am J Psychiatry. 2006;163:1285-1287.
68. Blackburn R, Glasgow DV. Manual for the Chart of Interpersonal Reactions in Closed Living Environments (CIRCLE). Liverpool, UK: University of Liverpool, unpublished manuscript; 2006.
69. Blackburn R, Renwick SJ. Rating scales for measuring the interpersonal circle in forensic psychiatric patients. Psychol Assess. 1996;8:76-84.
70. Leary T. Interpersonal diagnosis of personality: a functional theory and methodology for personality evaluation. New York: Ronald Press; 1957.
71. Marin-Avellan LE, McGauley G, Campbell C, Fonagy P. Using the SWAP-200 in a personality-disordered forensic population: is it valid, reliable and useful? Crim Behav Mental Health. 2005; 15:28-45.
72. Achenbach T, Edelbrock C. The classification of child psychopathology: a review and analysis of empirical efforts. Psychol Bull. 1978;85:1275-1301.
73. Krueger RF. The structure of common mental disorders. Arch Gen Psychiatry. 1999;56:921-926.
74. Kendler KS, Prescott CA, Myers J, Neale MC. The structure of genetic and environmental risk factors for common psychiatric and substance use disorders in men and women. Arch Gen Psychiatry. 2003;60:929-937.
75. Bradley B, DeFife JA, Guarnaccia C, *et al*. Emotion dysregulation and negative affect: association with psychiatric symptoms. J Clin Psychiatry. 2011;72:685-691.
76. Bradley B, Westen D, Mercer K, *et al*. Association between childhood maltreatment and adult emotional dysregulation in a low income, urban, African American sample: moderation by oxytocin receptor gene. Dev Psychopathol. 2011;23:439-452.
77. Shapiro D. Neurotic Styles. New York: Basic; 1965.
78. Cleckley H. The Mask of Sanity. 5th ed. St. Louis: Mosby; 1941.
79. Hare RD. The Hare Psychopathy Checklist–Revised. Toronto: Multi-Health Systems; 1991.
80. Hare R, Neumann C. The role of antisociality in the psychopathy construct: comment on Skeem and Cooke (2010). Psychol Assess. 2010;22:446-454.
81. Frick PJ, Cornell AH, Barry CT, Bodin SD, Dane HE. Callous-unemotional traits and conduct problems in the prediction of conduct problem severity, aggression, and self-report of delinquency. J Abnorm Child Psychology. 2003;31:457-470.
82. Frick PJ, Stickle TR, Dandreaux DM, Farrell JM, Kimonis ER. Callous-unemotional traits in predicting the severity and stability of conduct problems and delinquency. J Abnorm Child Psychol. 2005;33:471-487.
83. Lynam DR. Early identification of chronic offenders: who is the fledgling psychopath? Psychol Bull. 1996;120:209-234.
84. Klonsky ED, Oltmanns TF, Turkheimer E. Informants report of personality disorder: relation to self-reports and future research directions. Clin Psychol. 2002;9:300-311.