Article

An Empirically Derived Taxonomy for Personality Diagnosis: Bridging Science and Practice in Conceptualizing Personality

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Objective: The authors describe a system for diagnosing personality pathology that is empirically derived, clinically relevant, and practical for day-to-day use.

Method: A random national sample of psychiatrists and clinical psychologists (N=1,201) described a randomly selected current patient with any degree of personality dysfunction (from minimal to severe) using the descriptors in the Shedler-Westen Assessment Procedure–II and completed additional research forms.

Results: The authors applied factor analysis to identify naturally occurring diagnostic groupings within the patient sample. The analysis yielded 10 clinically coherent personality diagnoses organized into three higher-order clusters: internalizing, externalizing, and borderline-dysregulated. The authors selected the most highly rated descriptors to construct a diagnostic prototype for each personality syndrome. In a second, independent sample, research interviewers and patients' treating clinicians were able to diagnose the personality syndromes with high agreement and minimal comorbidity among diagnoses.

Conclusions: The empirically derived personality prototypes described here provide a framework for personality diagnosis that is both empirically based and clinically relevant.

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In 1999, we described a personality disorder taxonomy (1, 2) derived empirically via Q-factor analysis (3). The research identified 11 diagnostic groupings, many of which resembled DSM-IV personality disorder diagnoses. The empirically derived taxonomy solved a number of problems associated with personality disorder diagnosis: Comorbidity among diagnoses was greatly reduced, clinicians found the diagnostic system more useful than the DSM-IV system and more useful than dimensional trait models (4, 5), and the procedure empirically identified personality syndromes absent from DSM-IV (e.g., depressive) and refined the descriptions of others.

The 1999 patient sample was, however, restricted to patients with DSM-IV personality disorder diagnoses, and patients were not selected randomly. It was therefore not a representative sample drawn from clinical practice, and it excluded an unknown number of patients with potentially significant personality pathology that did not fit existing DSM-IV diagnostic categories. The present study addresses these limitations, rederiving a personality taxonomy using an independent national sample of patients randomly selected from clinical practice.

Describing Personality Syndromes

Developing empirically sound, clinically relevant descriptions of personality syndromes requires testing prospective diagnostic criteria that cover the full spectrum of potentially relevant personality processes. We developed the Shedler-Westen Assessment Procedure (SWAP) (1, 2, 6–9) to provide mental health professionals with a clinically comprehensive item set for recording and quantifying their observations about a patient's personality and to provide a set of potential diagnostic criteria to test empirically. The instrument contains 200 personality-descriptive items or potential diagnostic criteria.

The SWAP-II, used in the present study, is the third-generation SWAP instrument. A guiding principle in its development was that items should be written in descriptively precise, jargon-free language useful to clinicians of any theoretical orientation. A second principle was that personality processes that have been described repeatedly in the clinical literature constitute meaningful hypotheses to test as potential diagnostic criteria and should therefore be represented in the item set.

For example, clinical writings over the better part of a century have emphasized projection (i.e., misattribution of one's own intentions to another person) as a central feature of paranoid personality, but the construct had never been tested empirically as a potential diagnostic criterion. The concept was rendered in the SWAP in jargon-free language ("Tends to see own unacceptable feelings or impulses in other people instead of in him/herself") and did indeed emerge empirically as a central feature of paranoid

This article is featured in this month's AJP **Audio**, is discussed in an **Editorial** by Dr. Michels (p. 241), and is an article that provides **Clinical Guidance** (p. 284)

personality disorder (2), irrespective of the theoretical orientation of the clinician performing the assessment.

The initial SWAP item set (10) was drawn from a wide range of sources, including the clinical literature on personality from the past 50 years (e.g., references 11–14), axis II diagnostic criteria from DSM-III through DSM-IV, selected DSM axis I items that could reflect aspects of personality (e.g., depression and anxiety), empirical research on coping, defense, and affect regulation (e.g., references 15–18), research on interpersonal problems in patients with personality pathology (e.g., references 19, 20), research on personality traits in nonclinical populations (e.g., references 21–23), research on personality disorders conducted since the development of axis II (24), and pilot interviews in which observers watched videotaped interviews of patients with personality pathology (7).

The SWAP item set was then revised through an iterative process that incorporated the feedback of over 2,000 clinicians of all theoretical orientations. The content of 21 of the 200 items was substantially changed from the SWAP-200 to the revised SWAP-II. The revisions were based on empirical considerations and were aimed at refining the psychometric properties of the item set. In brief, we deleted items that failed to discriminate among patients (i.e., items that had minimal or no variance) and therefore contributed little or no incremental information, and we combined items that were empirically redundant (i.e., items that correlated >0.70). We also collected systematic written feedback from the users of the SWAP-200 and made text revisions to improve clarity of meaning where users indicated that they had difficulty scoring an item because its meaning seemed unclear or ambiguous. Among clinicians who have used the SWAP-II to describe a current patient, 84% "agreed" or "strongly agreed" with the statement "I was able to express the things I consider important about my patient's personality"; less than 5% disagreed (7).

Assigning Diagnoses in Day-to-Day Practice

We have proposed a *prototype matching* approach to personality diagnosis (9, 25–28). The Appendix, below, describes the prototype matching diagnostic procedure. A premise of this approach is that a list of eight to nine criteria is often insufficient to define a multifaceted personality syndrome in a way that clearly distinguishes it from other syndromes (contributing to the problem of comorbidity). Rather, it is the *configuration* or *pattern* the personality features form that identifies unique syndromes. From this perspective, recognizing a personality syndrome is fundamentally a process of pattern recognition, much as face recognition depends on pattern recognition, not tabulation of individual features. The SWAP items that describe a diagnosis are therefore arranged to form a narratively coherent paragraph, not presented as a list of features to tabulate. Diagnosticians rate the overall similarity or "match" between a patient and the prototype, considering the prototype *as a whole*. This approach was designed to work with rather than against the naturally occurring cognitive decision-making processes of diagnosticians (29–32).

The prototype matching method preserves a configurational or syndromal approach to personality diagnosis (33–35), consistent with all editions of DSM to date, while allowing dimensional assessment on a scale from 1 (no match) through 5 (very good match). Where categorical diagnosis is desired (e.g., to facilitate clinical communication), ratings ≥4 indicate "caseness" and a rating of 3 indicates "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 certain ranges as "borderline" or "high."

The reliability of SWAP prototype diagnoses made by independent observers is high, with a median interrater reliability across personality disorders of 0.72 (28), comparable to interrater reliability coefficients commonly observed for structured diagnostic interviews (mean kappa values between 0.69 and 0.84) (36, 37).

In this article, we present findings of research designed to rederive prototypes for personality disorder diagnosis using a large, clinically representative national sample and SWAP-II personality descriptors. We additionally present findings from a second, independent study examining the validity of personality diagnosis using these newly derived diagnoses.

Method

We contacted a random national sample of 1,201 psychiatrists and psychologists with at least 5 years of posttraining practice experience, drawn from the membership registers of APA and the American Psychological Association (8, 27, 38). Because clinicians provided all data and no patient identifying information was disclosed to the investigators, clinicians rather than patients provided informed consent, as approved by the Emory University Institutional Review Board. Participating clinicians received a $200 consulting fee. We asked clinicians to describe "an adult patient you are currently treating or evaluating who has enduring patterns of thoughts, feelings, motivation, or behavior—that is, personality patterns—that cause distress or dysfunction." To obtain a broad range of personality pathology, we emphasized that patients need not have a DSM-IV personality disorder diagnosis.

Patients met the following additional inclusion criteria: ≥18 years of age, not currently psychotic, and known reasonably well by the clinician (using the guideline of ≥6 clinical contact hours, but less than 2 years to minimize confounds due to treatment). To ensure random selection of patients, clinicians consulted their appointment calendars to select the last patient they saw during the previous week who met study criteria.

Measures

The Shedler-Westen Assessment Procedure–II (SWAP-II). The SWAP-II has been described in detail elsewhere (2, 7, 8). The instrument consists of 200 personality-descriptive statements, each of which may describe a given patient well, somewhat, or not at all. Clinicians sort the statements into eight categories,

from not descriptive of the patient (assigned a value of 0) to most descriptive (assigned a value of 7). Reliability and validity are high (8, 39, 40).

Clinical data form. The clinical data form is a clinician-report form that gathers data on demographic, diagnostic, etiological, and adaptive functioning variables. Data collected with the form concerning developmental history and life events have shown strong agreement (cross-method validity) with data collected from patients (41). Adaptive functioning variables assessed with the clinical data form (e.g., Global Assessment of Functioning Scale scores) have likewise shown high reliability and validity compared with ratings by independent observers (18, 41, 42).

Axis II criterion checklist. Clinicians completed a randomly ordered checklist of all criteria for all DSM-IV axis II disorders to indicate which criteria the patient met. We applied DSM-IV decision rules to generate DSM-IV diagnoses. This method provides results that mirror those of structured diagnostic interviews (43–45).

Data Analysis

We applied Q-factor analysis to identify naturally occurring diagnostic groupings empirically—that is, groupings of patients with personality features similar to one another and distinct from those of patients in other groupings. The computational algorithms are identical to those of conventional factor analysis but are applied to cases rather than variables. Factor analysis identifies groups of similar variables that assess a common underlying factor. In contrast, Q-factor analysis identifies groups of similar people who share a common syndrome. The findings reported here are based on unweighted least squares factor extraction with promax rotation. We tested other potential factor solutions, which yielded similar results.

After identifying diagnostic groupings empirically, we created psychometric scales to assess each disorder by selecting the SWAP-II items with the highest factor scores (i.e., the items that best described each diagnostic grouping). This resulted in a diagnostic scale for each diagnosis comprising 15 to 24 items, with the number of items reflecting the complexity of the personality syndrome. To create paragraph-format diagnostic prototypes useful for day-to-day diagnosis and appropriate for inclusion in a diagnostic manual, we organized the items thematically and edited the resulting descriptions for readability, redundancy, and narrative coherence. We also wrote a single-sentence summary statement (similar to the statements that begin the description of each disorder in DSM-IV but are not included in the diagnosis itself) to convey telegraphically the core features of each diagnosis (see the Appendix).

We assessed the convergent and discriminant validity of the diagnostic scales and associated prototypes using an independent sample from an ongoing study designed to compare the validity of alternative approaches to personality disorder diagnosis (including SWAP-II prototypes, dimensional trait models, and the DSM-IV diagnostic system). Patients completed self-report personality questionnaires and were evaluated by three independent research interviewers as well as their treating clinician. The research interviewers administered the Structured Clinical Interview for DSM-IV Axis II Disorders (46), the Clinical Diagnostic Interview (a systematic version of the kind of interviewing most skilled clinicians engage in during the initial hours of patient contact) (47), and the Longitudinal Interval Follow-Up Evaluation–Baseline Version (to assess adaptive functioning) (48). All assessors were blind to data provided by the others.

We examined the validity of the newly derived SWAP-II diagnoses by comparing independent diagnostic assessments provided by research interviewers who administered the Clinical Diagnostic Interview with assessments provided by the patients' treating clinicians. The findings are based on data from the first 145 consecutive patients enrolled in the study. (We plan in future publications to report on the validity of the alternative diagnostic systems with respect to a range of criterion variables including adaptive functioning assessed by multiple independent observers; measures of implicit personality processes derived from indirect measures, such as reaction time to experimental stimuli; and etiological variables such as salivary DNA, family history of psychiatric disorders, and developmental history.)

Results

The sample used to derive the SWAP-II personality prototypes consisted of 1,201 patients, 73.1% of whom were seen in independent practice and the remainder in a range of settings from outpatient clinics to forensic units; 53.2% were female, and 82.7% were Caucasian; the mean age was 42.3 years (SD=12.3). Patients spanned all social classes. GAF scores spanned a broad range, from 10 to 93 (mean=57.9, SD=10.8). One-third of the sample had had at least one psychiatric hospitalization, one-fourth had a history of suicide attempts, and one in 10 had been arrested during the previous 5 years. Clinician respondents were highly experienced (with a mean of 19.8 years of practice experience [SD=9.2]). They were diverse in theoretical orientation (e.g., biological, cognitive-behavioral, psychodynamic, integrative-eclectic, other), and no single theoretical orientation was endorsed by more than 25% of the sample.

Deriving Diagnostic Prototypes

We first selected patients who had a level of pathology indicative of what most investigators would consider a "disorder," operationally defined as meeting DSM-IV criteria for at least one personality disorder and having a GAF score <70. Approximately 70% of the sample met these criteria. In this stratum, we obtained a hierarchical factor structure comprising three superordinate factors or broad personality spectra (which were also obtained in the full sample): 1) internalizing pathology, 2) externalizing pathology, and 3) borderline-dysregulated pathology (Figure 1). These factors accounted for 33% of the variance in the stratum.

We then conducted second-order factor analyses, factoring patients within each broad spectrum (those with high loadings on one of the three superordinate factors) to identify specific diagnoses within each spectrum. This yielded four diagnoses within the internalizing spectrum (depressive, anxious-avoidant, dependent-victimized, and schizoid-schizotypal) and three within the externalizing spectrum (antisocial-psychopathic, narcissistic, and paranoid). The borderline-dysregulated superordinate factor was retained without further subdivision.

To identify personality syndromes that may have been missed in the analysis using the initial selection criteria, we performed a second factor analysis on patients with GAF scores ≥70. This analysis yielded two additional personality diagnoses, obsessional and hysteric-histrionic.

FIGURE 1. Hierarchical Structure of Personality Diagnoses

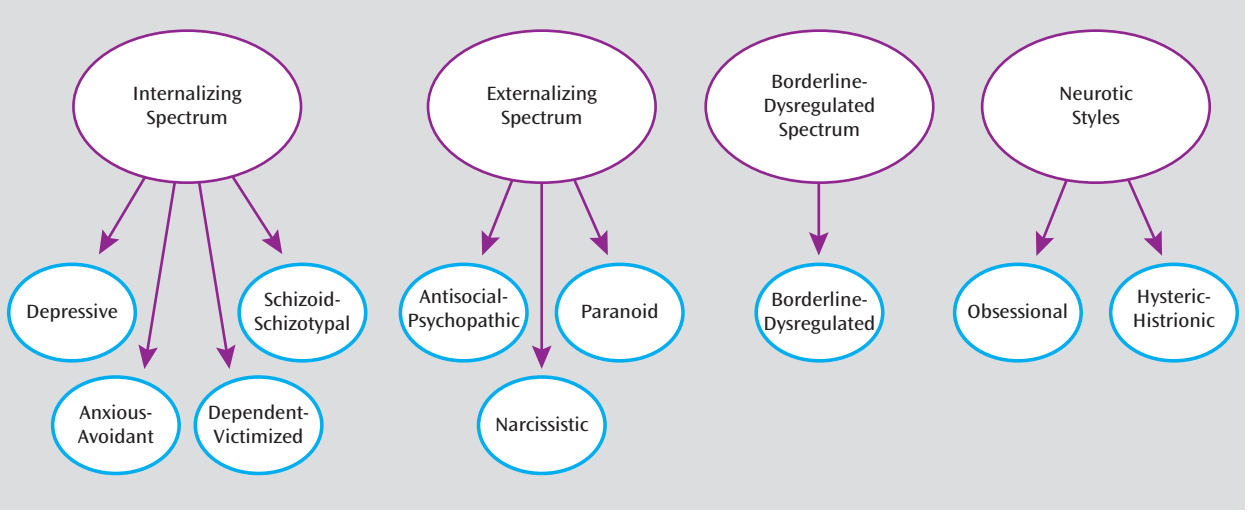

TABLE 1. Number of Items and Associated Reliability Coefficients for Diagnostic Scales (N=1,201)

Personality Spectrum and Diagnosis	Number of Items	Cronbach's Alpha
Internalizing	20	0.85
Depressive	17	0.82
Anxious-avoidant	15	0.78
Dependent-victimized	16	0.78
Schizoid-schizotypal	19	0.77
Externalizing	21	0.87
Antisocial-psychopathic	18	0.89
Narcissistic	21	0.72
Paranoid	15	0.79
Borderline-dysregulated	24	0.81
Neurotic styles		
Obsessional	21	0.73
Hysteric-histrionic	20	0.72
Personality health	23	0.94

These factors accounted for 30% of the variance in the stratum. Finally, factor analysis of the full sample yielded an additional prototype representing optimal personality health or adaptive personality strengths. The factor analyses thus empirically identified a total of 10 distinct empirically and clinically coherent personality diagnoses, plus an additional prototype representing optimal personality health. Figure 1 illustrates the hierarchical organization of the 10 personality diagnoses. (Factor analysis of the entire sample without stratification yielded similar diagnoses, although they tended to be less "clean" and sometimes mixed heterogeneous patients—for example, paranoid patients and higher-functioning individuals who were not paranoid but shared with paranoid patients prominent hostility and aggression.)

To develop scales and prototype descriptions for each diagnosis, we first listed the SWAP-II items that were most descriptive of each diagnosis in descending order of importance (by the magnitude of the factor score). Because we had obtained a hierarchical factor structure, we needed to differentiate the items that were 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 (items more specific to an individual diagnosis). Decisions about item inclusion and exclusion thresholds were based on psychometric considerations, taking into account item-scale correlations within and between superordinate and subordinate factors. As a guiding principle, items were retained for a given diagnostic scale or prototype if they were among the top 20–25 items with the highest factor scores for the diagnosis; if the item-scale correlation was 0.30 or higher; and if inclusion of the item did not suppress the reliability of the scale (with the goal of maintaining Cronbach's alpha values ≥0.70). Decisions that fell in gray areas were resolved conceptually—that is, items were retained if they were consistent with the broader themes of the factor.

The Appendix, below, presents the diagnostic prototypes for all personality syndromes, along with instructions on how to make diagnoses in clinical practice. Table 1 lists the number of items constituting each diagnostic scale (subsumed in the corresponding paragraph-format prototype description) and its associated reliability. All diagnoses showed high (Cronbach's alpha >0.70) to very high (Cronbach's alpha >0.85) internal consistency or reliability.

Table 2 presents intercorrelations among the diagnostic scales. The results indicate excellent discriminant validity (i.e., minimal diagnostic comorbidity), with an average correlation between any two diagnostic scales of –0.04. The internalizing and externalizing clusters were highly distinct (the average correlation of internalizing disorders with disorders outside the internalizing spectrum was –0.17; the average correlation of externalizing disorders with those outside the externalizing spectrum was –0.18). Even within each spectrum, where diagnostic overlap is

expected (because they are subordinate disorders within the same superordinate spectrum), the average correlations were 0.29 and 0.42 for the internalizing and externalizing spectra, respectively.

Validity Across Independent Observers and Assessment Methods

As an initial test of validity, we report data from 145 patients from a second, independent study of comparative approaches to personality disorder diagnosis. Eligible patients were between ages 18 and 65 and were concurrently participating in psychotherapy; they were recruited from academic medical centers or through community clinicians in two metropolitan areas. Exclusion criteria were active psychosis or a previous diagnosis of schizophrenia or schizoaffective disorder, any known organic impairment, and lack of fluency in English.

To determine whether two independent observers could diagnose patients similarly despite independent and nonoverlapping sources of assessment information, we compared diagnostic scores provided by an independent assessor after administering the Clinical Diagnostic Interview (40, 49) with scores provided by the patient's treating clinician based on observations made over the course of treatment. Both assessors completed the SWAP-II and were blind to data provided by the other. The diagnoses were made in different assessment contexts based on unrelated data sources.

Table 3 presents the cross-method/cross-observer correlations of SWAP-II diagnostic scores derived from research interviewers and from treating clinicians. Validity coefficients were good to very good, with a mean cross-observer correlation of 0.51. Discriminant validity coefficients were desirably low, with a mean correlation of –0.01. Once again, even correlations within the same superordinate diagnostic spectrum were relatively low, with an average correlation among diagnoses of 0.18 and 0.22 within the internalizing and externalizing spectra, respectively. Correlations among disorders outside the same spectrum were negligible, with a mean of –0.06. The findings indicate convergence among independent observers, with minimal comorbidity among diagnoses.

Discussion

We derived 10 prototypes for diagnosing personality pathology. The prototypes are broadly consistent with conceptions of personality syndromes described in the clinical literature.

All 10 diagnoses replicate diagnostic groupings identified in our 1999 taxonomic research (2). This replication is noteworthy given that we used an independent sample with markedly different inclusion and exclusion criteria, a revised item set (The SWAP-II versus the SWAP-200), and a different factor-analytic procedure. A new finding is the hierarchical factor structure with superordinate internalizing, externalizing, and borderline-dysregulated factors (described in more detail below). These groupings provide an empirically based alternative to the DSM-IV approach of grouping personality disorders into "clusters" A, B, and C, which were derived post hoc and show high comorbidity within and across clusters. The factor structure is also "cleaner" than the structure we identified in 1999, which included a large internalizing factor (labeled "dysphoric") that subsumed multiple subtypes.

Continuities and Discontinuities With DSM-IV

Although the 10 diagnoses maintain a fair amount of continuity with DSM-IV, the prototypes differ in key respects from DSM-IV personality disorders. They are more clinically nuanced and include more items addressing internal psychological processes. They all describe multifaceted syndromes encompassing multiple domains of functioning (e.g., cognition, affectivity, interpersonal relations, impulse regulation, and affect regulation). The DSM-IV general criteria for personality disorders define them in terms of multiple domains of functioning, but most of the criterion sets for specific personality disorders do not actually encompass these multiple domains. For example, the DSM-IV criteria for paranoid personality disorder are essentially redundant indicators of a single trait, chronic suspiciousness, and do not capture the complex personality syndrome recognized by most practitioners (which includes, for example, hostility and aggression, misattribution of hostile intentions to others, externalization of blame, and distortions in thinking and reasoning).

Similarly, the DSM-IV criteria for antisocial personality disorder emphasize criminality and behaviors that can be readily inquired about in structured interviews. Our empirically derived antisocial-psychopathic prototype is closer to Cleckley's (50) conceptualization of psychopathy and the findings of subsequent empirical research on the psychopathy construct (51, 52).

Our expanded descriptions of personality syndromes solve a problem inherent in DSM-IV: it is psychometrically impossible for criterion sets of only eight or nine items to delineate distinct disorders and also retain fidelity to the clinical syndromes they are intended to describe (1). Certain personality characteristics are central to more than one personality disorder (e.g., lack of empathy is characteristic of narcissistic and antisocial personality disorder; hostility is characteristic of paranoid, antisocial, and narcissistic personality disorders). As DSM is currently configured, including the same item in more than one criterion set gives rise to unacceptably high comorbidity, but arbitrarily excluding items from criterion sets results in clinically inaccurate descriptions.

Prototype matching resolves this problem because items can be included in multiple diagnostic prototypes without giving rise to artifactual comorbidity. For example, narcissistic, antisocial-psychopathic, and borderline-dysregulated patients may all be characterized by deficits in empathy, but not in the same way. Narcissistic patients are often

TABLE 2. Intercorrelations Among Personality Diagnoses (N=1,201)[a]

	Depressive	Anxious-Avoidant	Dependent-Victimized	Schizoid-Schizotypal	Antisocial-Psychopathic	Narcissistic	Paranoid
Depressive	—						
Anxious-avoidant	0.51	—					
Dependent-victimized	0.53	0.40	—				
Schizoid-schizotypal	0.10	0.28	–0.08	—			
Antisocial-psychopathic	–0.56	–0.53	–0.46	0.14	—		
Narcissistic	–0.36	–0.39	–0.55	–0.06	0.31	—	
Paranoid	–0.39	–0.24	–0.52	0.39	0.51	0.45	—
Borderline-dysregulated	0.01	–0.18	–0.04	0.00	0.28	–0.02	0.39
Obsessional	–0.04	0.15	–0.13	0.12	–0.22	0.30	–0.01
Hysteric-histrionic	–0.24	–0.35	0.20	–0.32	0.10	–0.06	–0.23
Personality health	0.01	–0.02	0.11	–0.53	–0.49	–0.19	–0.58

[a] Shaded areas indicate correlations among disorders within the same superordinate (internalizing or externalizing) spectrum, which are generally expected to overlap.

TABLE 3. Correlations Between Research Interviewers and Treating Clinicians (N=145)[a]

	Ratings by Research Interviewer						
Ratings by Treating Clinician	Depressive	Anxious-Avoidant	Dependent-Victimized	Schizoid-Schizotypal	Antisocial-Psychopathic	Narcissistic	Paranoid
Depressive	**0.56****	0.19	0.37**	0.08	–0.19	–0.08	–0.11
Anxious-avoidant	0.46**	**0.55****	0.36**	0.22	–0.30**	–0.16	–0.13
Dependent-victimized	0.40**	0.06	**0.56****	–0.07	–0.27*	–0.19	–0.34**
Schizoid-schizotypal	–0.02	0.22	–0.13	**0.48****	–0.09	0.14	0.26*
Antisocial-psychopathic	–0.33**	–0.23*	–0.36**	–0.04	**0.47****	0.12	0.27*
Narcissistic	–0.16	–0.14	–0.35**	0.07	0.15	**0.48****	0.28*
Paranoid	–0.26*	–0.06	–0.32**	0.24*	0.21	0.30**	**0.59****
Borderline-dysregulated	0.01	–0.12	–0.09	0.07	0.22	–0.09	0.22
Obsessional	–0.08	0.20	–0.17	–0.05	–0.16	0.31**	–0.08
Hysteric-histrionic	–0.16	–0.28*	0.04	–0.16	0.08	–0.02	–0.09
Personality health	0.06	–0.11	0.17	–0.28*	–0.11	–0.23*	–0.35**

[a] Correlations in boldface (along the diagonal) represent convergent validity coefficients. Correlations off the diagonal represent discriminant validity coefficients. Average diagonal value, r=0.51; average off-diagonal value, r=–0.01. Shaded areas indicate correlations among disorders within the same superordinate (internalizing or externalizing) spectrum, which are generally expected to overlap.
*p<0.01. **p<0.001.

oblivious to others' needs, antisocial-psychopathic patients may recognize others' needs and exploit them, and borderline-dysregulated patients may have trouble recognizing others' internal states when they are overwhelmed by their own emotions or because they are prone to seeing others in black-or-white terms. Clinical practitioners generally do not confuse these configurations. The problem of "comorbidity" is not inherent in personality diagnosis but is an artifact of abbreviated criterion sets that do not capture the complexity of real-life personality syndromes.

Hierarchical Organization of Personality Syndromes

Among patients with more severe personality pathology, we found three superordinate groupings or broad personality spectra, reflecting internalizing, externalizing, and borderline-dysregulated pathology. Patients in the internalizing spectrum are self-blaming and chronically prone to depression and anxiety. Patients in the externalizing spectrum blame others and are chronically prone to anger and aggression. Patients in the borderline-dysregulated spectrum are qualitatively distinct from stable internalizers or externalizers. Their perceptions of self and others are unstable and fluctuating, and they exhibit an impaired ability to regulate emotion (often oscillating between emotions characteristic of internalizing and externalizing pathology, for example, depression, anxiety, and rage). They may best be described as "stably unstable" (53).

We additionally identified an obsessional personality syndrome and a hysteric-histrionic syndrome. We labeled them "neurotic styles" (54) because patients who match these prototypes may or may not show a level of dysfunction that warrants the term *disorder* (we found these syndromes in previous research as well) (55). As with all personality syndromes, patients with these syndromes fall along a continuum of severity. Some experience severe dysfunction and have frank personality disorders, but on average they tend to cluster toward the less severe end of the continuum of personality pathology.

Identification of these two syndromes resolves two conundrums that have existed since DSM-III. The first is

Borderline-Dysregulated	Obsessional	Hysteric-Histrionic	Personality Health
—			
–0.60	—		
0.25	–0.44	—	
–0.55	0.21	–0.02	—

Borderline-Dysregulated	Obsessional	Hysteric-Histrionic	Personality Health
0.12	–0.01	–0.13	–0.10
0.04	0.03	–0.14	–0.09
–0.05	0.00	0.14	0.12
0.01	0.19	–0.20	–0.16
0.13	–0.16	–0.01	–0.14
–0.04	0.15	–0.09	–0.11
0.14	–0.01	–0.14	–0.27*
0.45**	–0.34**	0.04	–0.27*
–0.35**	**0.50****	–0.23*	0.21
0.02	–0.09	**0.45****	0.02
–0.15	0.04	0.11	**0.29****

that obsessive-compulsive personality disorder is the only DSM personality disorder that tends to correlate positively with measures of healthy adaptive functioning. The second is that the framers of DSM-III had to "ratchet up" the level of pathology of both of these personality styles (previously called *obsessional* and *hysteric* in both the clinical literature and earlier editions of DSM) to fit in a taxonomy of "disorders." The result was an obsessive-compulsive personality diagnosis that often lacked congruence with clinical and empirical reality and a histrionic diagnosis that was empirically indistinguishable from borderline personality disorder.

The internalizing and externalizing spectra are consistent with a rich literature on childhood and adolescent disorders (56) and with recent findings on adult psychopathology obtained using very different research methods, item sets, and data-analytic approaches (57, 58). The convergence across different methodological approaches suggests that internalizing and externalizing pathology are crucial personality constructs. These spectra have the additional advantage of facilitating understanding of the relation between axis I disorders and personality substrates (e.g., individuals with internalizing personality pathology are vulnerable to mood and anxiety disorders; those with externalizing personality pathology are prone to substance abuse and impulse disorders). Identification of a borderline-dysregulated spectrum is a unique finding of this research; its emergence likely reflects the use of a clinically rich item set capable of distinguishing patients with stably high negative emotionality from those with dysregulated emotions, impulses, and perceptions of self and others.

Personality Health Prototype

Factor analysis of the full sample yielded a prototype representing optimal personality health or adaptive personality strengths, which we also found in our 1999 study. This prototype provides a measure of personality health-sickness that cuts across all disorders. For example, a patient with narcissistic personality pathology might match the personality health prototype to varying degrees, with important implications for adaptive functioning and prognosis. Degree of match with the health prototype can help clarify where a given patient falls along the continuum of functioning from neurotic style through personality disorder (for example, in the case of obsessional and hysteric-histrionic personality). The factor has emerged repeatedly in previous research (1), and the items it comprises reflect broad consensus among clinicians of different theoretical orientations regarding the definition of healthy personality functioning. Previous research has shown that inclusion of a personality health prototype substantially increases the predictive validity of personality diagnosis (27).

Conclusions

The 10 empirically derived prototypes for personality diagnosis that we describe here are scientifically grounded and clinically relevant. The finding that treating clinicians and independent research interviewers can recognize the same personality configuration in a given patient is especially encouraging because it indicates that clinicians can make accurate, quantifiable assessments of complex personality syndromes in everyday practice.

APPENDIX. Empirically Derived Prototypes for Personality Disorder Diagnosis Based on the Shedler-Westen Assessment Procedure[a]

For each diagnosis, please form an *overall* impression of the type of person described, then rate the extent to which your patient matches or resembles the prototype.

5	Very good match (patient ***exemplifies*** this disorder; prototypical case)	**Diagnosis**
4	Good match (patient ***has*** this disorder; diagnosis applies)	
3	Moderate match (patient has ***significant features*** of this disorder)	**Features**
2	Slight match (patient has minor features of this disorder)	
1	No match (description does not apply)	

Internalizing Spectrum

The internalizing spectrum subsumes four personality disorders: Depressive, Anxious-Avoidant, Dependent-Victimized, and Schizoid-Schizotypal. Individuals with disorders in the internalizing spectrum experience chronic painful emotions, especially depression and anxiety, tend to be emotionally inhibited and socially avoidant, and tend to blame themselves for their difficulties.

Individuals with disorders in the internalizing spectrum are chronically susceptible to a range of painful emotions, including depression, anxiety, guilt, shame, and embarrassment. They tend to be self-critical and to feel inadequate. They tend to be inhibited and constricted and have difficulty allowing themselves to express their wishes and impulses. They tend to be passive and unassertive, and to feel helpless, powerless, or at the mercy of forces outside their control. They tend to ruminate over problems. They have trouble acknowledging or expressing anger and instead become depressed, self-critical, or self-punitive (turning their anger on themselves rather than getting angry at others). They often fear rejection or abandonment and may suffer from painful feelings of emptiness. They tend to be shy or self-conscious and may avoid social situations because of fear of embarrassment. They tend to feel like outcasts or outsiders and may lack close friendships and relationships.

Depressive Personality

Summary statement: Individuals with Depressive Personality are prone to feelings of depression and inadequacy, tend to be self-critical or self-punitive, and may be preoccupied with concerns about abandonment or loss.

Individuals who match this prototype tend to feel depressed or despondent and to feel inadequate, inferior, or a failure. They tend to find little pleasure or satisfaction in life's activities and to feel life has no meaning. They are insufficiently concerned with meeting their own needs, disavowing or squelching their hopes and desires to protect against disappointment. They appear conflicted about experiencing pleasure, inhibiting feelings of excitement, joy, or pride. They may likewise be conflicted or inhibited about achievement or success (e.g., failing to reach their potential or sabotaging themselves when success is at hand). Individuals who match this prototype are generally self-critical, holding themselves to unrealistic standards and feeling guilty and blaming themselves for bad things that happen. They appear to want to "punish" themselves by creating situations that lead to unhappiness or avoiding opportunities for pleasure and gratification. They have trouble acknowledging or expressing anger and instead become depressed, self-critical, or self-punitive. Individuals who match this prototype often fear that they will be rejected or abandoned, are prone to painful feeling of emptiness, and may feel bereft or abjectly alone even in the presence of others. They may have a pervasive sense that someone or something necessary for happiness has been lost forever (e.g., a relationship, youth, beauty, success).

Anxious-Avoidant Personality

Summary statement: Individuals with Anxious-Avoidant Personality are chronically prone to anxiety, are socially anxious and avoidant, and attempt to manage anxiety in ways that limit and constrict their lives.

Individuals who match this prototype are chronically anxious. They tend to ruminate, dwelling on problems or replaying conversations in their minds. They are more concerned with avoiding harm than pursuing desires, and their choices and actions are unduly influenced by efforts to avoid perceived dangers. They are prone to feelings of shame and embarrassment. Individuals who match this prototype tend to be shy and self-conscious in social situations and to feel like an outcast or outsider. They are often socially awkward and tend to avoid social situations because of fear of embarrassment or humiliation. They tend to be inhibited and constricted and to have difficulty acknowledging or expressing desires. They may adhere rigidly to daily routines, have trouble making decisions, or vacillate when faced with choices. Their anxiety may find expression through a variety of channels, including panic attacks, hypochondriacal concerns (e.g., excessive worry about normal aches and pains), or somatic symptoms in response to stress (e.g., headache, backache, abdominal pain, asthma).

Dependent-Victimized Personality

Summary statement: Individuals with Dependent-Victimized Personality are highly dependent and fearful of being alone, tend to show insufficient concern for their own well-being to the point of jeopardizing their welfare or safety, and have difficulty expressing anger directly.

Individuals who match this prototype tend to be needy and dependent, fear being alone, and fear rejection or abandonment. They tend to be ingratiating or submissive, often consenting to things they find objectionable in an effort to maintain support or approval. They tend to be passive and unassertive and to feel helpless and powerless. They tend to be indecisive, suggestible or easily influenced, and naïve or innocent, seeming to know less about the ways of the world than would be expected. They tend to become attached to people who are emotionally unavailable, and to create relationships in which they are in the role of caring for or rescuing the other person. Individuals who match this prototype tend to get drawn into or remain in relationships in which they are emotionally or physically abused, or needlessly put themselves in dangerous situations (e.g., walking alone or agreeing to meet strangers in unsafe places). They are insufficiently concerned with meeting their own needs and tend to feel unworthy or undeserving. Individuals who match this prototype have trouble acknowledging or expressing anger and instead become depressed, self-critical, or self-punitive. They tend to express anger in passive and indirect ways (e.g., making mistakes, procrastinating, forgetting) that may provoke or trigger anger or mistreatment from others.

Schizoid-Schizotypal Personality

Summary statement: Individuals with Schizoid-Schizotypal Personality are characterized by pervasive impoverishment of, and peculiarities in, interpersonal relationships, emotional experience, and thought processes.

Individuals who match this prototype lack close relationships and appear to have little need for human company or contact, often seeming detached or indifferent. They lack social skills and tend to be socially awkward or inappropriate. Their appearance or manner may be odd or peculiar (e.g., their grooming, posture, eye contact, or speech rhythms may seem strange or "off"), and their verbal statements may be incongruous with their accompanying emotion or non-verbal behavior. They have difficulty making sense of others' behavior and appear unable to describe important others in a way that conveys a sense of who they are as people. They likewise have little insight into their own motives and behavior, and have difficulty giving a coherent account of their lives. Individuals who match this prototype appear to have a limited or constricted range of emotions and tend to think in concrete terms, showing limited ability to appreciate metaphor, analogy, or nuance. Consequently, they tend to elicit boredom in others. Despite their apparent emotional detachment, they often suffer emotionally: They find little satisfaction or enjoyment in life's activities, tend to feel life has no meaning, and feel like outcasts or outsiders. A subset of individuals who match this prototype show substantial peculiarities in their thinking and perception. Their speech and thought processes may be circumstantial, rambling, or digressive, their reasoning processes or perceptual experiences may seem odd and idiosyncratic, and they may be suspicious of others, reading malevolent intent into others' words and actions.

Externalizing Spectrum

The externalizing spectrum subsumes three personality disorders: Antisocial-Psychopathic, Paranoid, and Narcissistic. Individuals with disorders in the externalizing spectrum are angry or hostile, self-centered and lacking in empathy, and blame others for their difficulties.

Individuals with disorders in the Externalizing spectrum tend to be angry or hostile, whether expressed through overt aggression, rage episodes, or critical, controlling, or oppositional behavior. They tend to be suspicious of others, conflicted about authority, and prone to getting into power struggles. They tend to hold grudges and to react to perceived slights with rage and humiliation. They lack empathy for others' needs and feelings, may feel privileged or entitled, and tend to have an exaggerated sense of self-importance. They tend to blame their failures on other people or circumstances. They have little psychological insight into their own motives and behavior and tend to feel mistreated or victimized rather than recognizing how their own behavior and attitudes affect other people. They tend to elicit dislike or animosity and to lack close friendships and relationships.

Antisocial-Psychopathic Personality

Summary statement: Individuals with Antisocial-Psychopathic Personality exploit others, experience little remorse for harm or injury caused to others, and have poor impulse control.

Individuals who match this prototype take advantage of others, tend to lie or deceive, and to be manipulative. They show a reckless disregard for the rights, property, or safety of others. They lack empathy for other people's needs and feelings. Individuals who match this prototype experience little remorse for harm or injury they cause. They appear impervious to consequences and seem unable or unwilling to modify their behavior in response to threats or consequences. They generally lack psychological insight and blame their difficulties on other people or circumstances. They often appear to gain pleasure by being sadistic or aggressive toward others, and they may attempt to dominate significant others through intimidation or violence. Individuals who match this prototype tend to be impulsive, to seek thrills, novelty, and excitement, and to require high levels of stimulation. They tend to be unreliable and irresponsible and may fail to meet work obligations or honor financial commitments. They may engage in antisocial behavior, including unlawful activities, substance abuse, or interpersonal violence. They may repeatedly convince others of their commitment to change, leading others to think "this time is really different," only to revert to their previous maladaptive behavior.

Paranoid Personality

Summary statement: Individuals with Paranoid Personality are chronically suspicious, angry and hostile, and may show disturbed thinking.

Individuals who match this prototype are chronically suspicious, expecting that others will harm, deceive, conspire against, or betray them. They tend to blame their problems on other people or circumstances, and to attribute their difficulties to external factors. Rather than recognizing their own role in interpersonal conflicts, they tend to feel misunderstood, mistreated, or victimized. Individuals who match this prototype tend to be angry or hostile and prone to rage episodes. They tend to see their own unacceptable impulses in other people instead of in themselves, and are therefore prone to misattribute hostility to other people. They tend to be controlling, to be oppositional, contrary, or quick to disagree, and to hold grudges. They tend to elicit dislike or animosity and to lack close friendships and relationships. Individuals who match this prototype tend to show disturbances in their thinking, above and beyond paranoid ideas. Their perceptions and reasoning can be odd and idiosyncratic, and they may become irrational when strong emotions are stirred up, to the point of seeming delusional.

Narcissistic Personality

Summary statement: Individuals with Narcissistic Personality are grandiose and entitled, dismissive and critical of others, and often show underlying signs of vulnerability beneath a grandiose façade.

Individuals who match this prototype have an exaggerated sense of self-importance. They feel privileged and entitled, expect preferential treatment, and seek to be the center of attention. They have fantasies of unlimited success, power, beauty, or talent, and tend to treat others primarily as an audience to witness their importance or brilliance. They tend to believe they can only be appreciated by, or should only associate with, people who are high-status, superior, or "special." They have little empathy and seem unable to understand or respond to others' needs and feelings unless they coincide with their own. Individuals who match this prototype tend to be dismissive, haughty, and arrogant. They tend to be critical, envious, competitive with others, and prone to get into power struggles. They attempt to avoid feeling helpless or depressed by becoming angry instead, and tend to react to perceived slights or criticism with rage and humiliation. Their overt grandiosity may mask underlying vulnerability: Individuals who match this prototype are invested in seeing and portraying themselves as emotionally strong, untroubled, and emotionally in control, often despite clear evidence of underlying insecurity or distress. A substantial subset of narcissistic individuals tend to feel inadequate or inferior, to feel that life has no meaning, and to be self-critical and intolerant of their own human defects, holding themselves to unrealistic standards of perfection.

Borderline-Dysregulated Spectrum

Borderline-Dysregulated Personality

Summary Statement: Individuals with Borderline-Dysregulated 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 impulses, including self-destructive impulses.

Individuals 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 tend to become irrational when strong emotions are stirred up, showing a significant decline from their usual level of functioning. Individuals who match this prototype lack a stable sense of self: Their attitudes, values, goals, and feelings about themselves may seem unstable or ever-changing, and they are prone to painful feelings of emptiness. 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 often elicit intense emotions in other people and may draw them into roles or "scripts" that feel alien and unfamiliar (e.g., being uncharacteristically cruel, or making "heroic" efforts to rescue them). They may likewise stir up conflict or animosity between other people. Individuals who match this prototype tend to act impulsively. Their work life or living arrangements may be chaotic and unstable. They may act on self-destructive impulses, including self-mutilating behavior, suicidal threats or gestures, and genuine suicidality, especially when an attachment relationship is disrupted or threatened.

Neurotic Styles

The neurotic styles grouping subsumes two personality syndromes: Obsessional and Hysteric-Histrionic. These syndromes generally do not entail the same level of impairment or dysfunction as the other personality syndromes, and may therefore be considered character styles *rather than* disorders. *Their more extreme variants can, however, constitute bona fide personality disorders.*

Obsessional Personality

Summary statement: Individuals with Obsessional Personality are intellectualized and overly "rational" in their approach to life, are emotionally constricted and rigid, and are critical of themselves and others and conflicted about anger, aggression, and authority.

Individuals who match this prototype tend to see themselves as logical and rational, uninfluenced by emotion. They tend to think in abstract and intellectualized terms, to become absorbed in details (often to the point of missing what is important), and prefer to operate as if emotions were irrelevant or inconsequential. They tend to be excessively devoted to work and productivity to the detriment of leisure and relationships. Individuals who match this prototype tend to be inhibited and constricted, and have difficulty acknowledging or expressing wishes, impulses, or anger. They are invested in seeing and portraying themselves as emotionally strong, untroubled, and in control, despite evidence of underlying insecurity, anxiety, or distress. They tend to deny or disavow their need for nurturance or comfort, often regarding such needs as weakness. They tend to adhere rigidly to daily routines, becoming anxious or uncomfortable when they are altered, and to be overly concerned with rules, procedures, order, organization, schedules, and so on. They may be preoccupied with concerns about dirt, cleanliness, or contamination. Rationality and regimentation generally mask underlying feelings of anxiety or anger. Individuals who match this prototype tend to be conflicted about anger, aggression, and authority. They tend to be self-critical, expecting themselves to be "perfect," and to be equally critical of others, whether overtly or covertly. They tend to be controlling, oppositional, and self-righteous or moralistic. They are prone to being stingy and withholding (e.g., of time, money, affection). They are often conflicted about authority, struggling with contradictory impulses to submit versus defy.

Hysteric-Histrionic Personality

Summary statement: Individuals with Hysteric-Histrionic Personality are emotionally dramatic and cognitively impressionistic, sexually provocative, and interpersonally suggestible, idealizing of admired others, and paradoxically both intensely and superficially attached.

Individuals who match this prototype are emotionally dramatic and prone to express emotion in exaggerated and theatrical ways. Their reactions tend to be based on emotion rather than reflection, and their cognitive style tends to be glib, global, and impressionistic (e.g., missing details, glossing over inconsistencies, mispronouncing names). Their beliefs and expectations seem cliché or stereotypical, as if taken from storybooks or movies, and they seem naïve or innocent, seeming to know less about the ways of the world than would be expected. Individuals who match this prototype tend to be sexually seductive or provocative. They use their physical attractiveness to an excessive degree to gain attention and notice, and they behave in ways that seem to epitomize gender stereotypes. They may be flirtatious, preoccupied with sexual conquest, prone to lead people on, or promiscuous. They tend to become involved in romantic or sexual "triangles" and may be drawn to people who are already attached or sought by someone else. They appear to have difficulty directing both tender feelings and sexual feelings toward the same person, tending to view others as either virtuous or sexy, but not both. Individuals who match this prototype tend to be suggestible or easily influenced, and to idealize and identify with admired others to the point of taking on their attitudes or mannerisms. They fantasize about ideal, perfect love, yet tend to choose sexual or romantic partners who are emotionally unavailable, or who seem inappropriate (e.g., in terms of age or social or economic status). They may become attached quickly and intensely. Beneath the surface, they often fear being alone, rejected, or abandoned.

Personality Health

This prototype represents optimal personality health. Degree of match with this prototype provides a measure of adaptive psychological strengths. The more individuals match this prototype, the more they are able to engage in meaningful and mature relationships, find meaning and satisfaction in life's pursuits, and make effective use of their talents and abilities.

Individuals who match this prototype are capable of sustaining meaningful relationships characterized by genuine intimacy and caring. They are empathic and responsive to others' needs and feelings and have the capacity to recognize alternative viewpoints, even when emotions are strong. They have moral and ethical standards, strive to live up to them, and tend to be conscientious and responsible. They appear comfortable in social situations, are able to assert themselves effectively and appropriately when necessary, tend to be energetic and outgoing, and tend to be liked by others. They tend to have satisfying sex lives. They are psychologically insightful and able to understand themselves and others in nuanced ways. They are capable of hearing and making effective use of information that is emotionally threatening, and have generally come to terms with painful experiences from the past, finding meaning in the experiences and growing from them. Individuals who match this prototype tend to express emotion appropriate in quality and intensity to the situation at hand. They generally find contentment and happiness in life's activities. They find meaning and fulfillment in guiding or nurturing others, in belonging and contributing to a larger community, and in the pursuit of long-term goals and ambitions. Individuals who match this prototype are able to use their talents, abilities, and energy effectively and productively. They enjoy challenges and take pleasure in accomplishing things. They are able to express themselves verbally, have a sense of humor, and tend to see things and approach problems in creative ways.

[a] All diagnoses fall on a continuum of functioning. More severe variants may be regarded as personality *disorders* and less severe variants may be regarded as personality *styles*.

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Clinical Guidance: Clinical Presentations of Personality Disorders

Clinicians more generally diagnose syndromes as a whole, rather than summing the individual symptoms in a checklist. Westen et al. used clinician input to construct archetypical vignettes and then assessed their validity for diagnosis as templates that clinicians could use to match patients. The syndromes fell into three major groups: internalizing, externalizing, and borderline-dysregulated. Patients with higher levels of functioning also included hysterical-histrionic and obsessive types. The syndromes permit clearer distinctions between diagnoses, such as narcissistic personality disorder and borderline personality disorder, that have a common symptom, e.g., loss of empathy, that leads to the misimpression of frequent comorbidity. In an editorial, Michels (p. 241) praises the system as clinically astute but notes that occasional features are inconsistent, such as the schizoid-schizotypal syndrome, which includes both restricted affect and painful emotions. Because of the input from clinicians, other features, such as suggestibility in histrionic-hysterical patients, mirror clinicians' traditional teaching but are not fully validated by current research.