

Personality Constellations in Patients With a History of Childhood Sexual Abuse

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Although childhood sexual abuse (CSA) appears to have an impact on personality, it does not affect all survivors the same way. The goal of this study was to identify common personality patterns in women with a history of CSA. A national sample of randomly selected psychologists and psychiatrists described 74 adult female patients with a history of CSA and a comparison group of 74 without CSA using the Shedler–Westen Assessment Procedure-200 (SWAP-200), a Q-sort procedure for assessing personality pathology. Q-factor analysis identified four personality constellations among abuse survivors: Internalizing Dysregulated, High Functioning Internalizing, Externalizing Dysregulated, and Dependent. The four groups differed on diagnostic, adaptive functioning, and developmental history variables, providing initial support for the validity of this classification. The data have potential methodological and treatment implications.

A history of childhood sexual abuse (CSA) may have a far-ranging psychological impact and is associated with a number of psychological difficulties in adulthood, including depressed mood, lowered self-esteem, difficulties with anger, anxiety, dissociation, somatic disorders, suicidal and self-harming behaviors, disordered eating, sexual dysfunction, and problems in social functioning (Browne & Finkelhor, 1986; Davis & Petretic-Jackson, 2000; Molnar, Buka, & Kessler, 2001; Saunders, Kilpatrick, Hanson, Resnick, & Walker, 1999; Smolak & Murnen, 2002; van Der Kolk et al., 1996; Weiss, Longhurst, & Mazure, 1999). On the other hand, a significant proportion of women who experienced CSA display little or no psychological difficulties (e.g., Browne & Finkelhor, 1986; Fromuth, 1986; Kendall-Tackett, Williams, & Finkelhor, 1993). Thus, despite the

clear link between CSA and later psychopathology, the impact of CSA is not uniform, and no one set of cardinal symptoms has been identified.

Although some sequelae are relatively obvious manifestations of sexual abuse (e.g., sexual dysfunction), many are nonspecific (e.g., depression, anxiety). One way to understand some of the broader, nonspecific effects of abuse is in terms of its impact on personality, which refers to a set of organized, interrelated systems of cognitive, affective, and behavioral response. Research on personality as it related to CSA has mostly focused on links to borderline personality disorder (BPD; e.g., Bradley, Jenei, & Westen, 2005; Ogata et al., 1990; Westen, Ludolph, Misle, Ruffins, & Block, 1990; Zanarini et al., 1997; Zlotnick, Mattia, & Zimmerman, 2001). However, a growing group of authors identifies a relationship between CSA and the full range of personality disorders even when controlling for factors such as parental psychopathology and level of BPD (Battle et al., 2004; Golier et al., 2003; Johnson, Cohen, Brown, Smailes, & Bernstein, 1999). Other research has examined personality constructs such as complex posttraumatic stress disorder (PTSD), the Five Factor Model of personality, negative affectivity, and affect dysregulation (see, e.g., Cloitre, Scarvalone, & Difede, 1997;

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McLean & Gallop, 2003; Spaccarelli & Fuchs, 1997; Talbot, Duberstein, King, Cox, & Giles, 2000).

An assumption implicit in most research on the impact of CSA (as in much psychopathology research) is that CSA-related symptomatology and phenomenology, though heterogeneous, are randomly distributed around a single mean. This assumption is implicit in ANOVA designs comparing CSA patients with comparison groups. A little noticed assumption in such designs is that an event such as sexual abuse is likely to lead to effects in one direction in any given domain (e.g., increased depression). This assumption may, however, be appropriate for some outcome variables but not for others, leading to apparent inconsistencies in the literature. An alternative assumption is that some of the heterogeneity seen in research on the sequelae of CSA may reflect patterned heterogeneity across multiple functional domains. In this view, some people may respond to CSA by becoming impulsive across a number of domains of functioning, whereas others may become constricted or overcontrolled within precisely those same domains. For example, CSA could lead some individuals to become sexually avoidant but others to become sexually promiscuous, and indeed, both findings have support in the literature (see Davis & Petretic-Jackson, 2000 for a review). Thus, results of research may depend substantially on the types of individuals sampled in a given study. An equal number of patients with overcontrolled and impulsive reactions to CSA might result in finding no impact of abuse on either domain. Most likely, exposure to CSA produces a core of shared sequelae (e.g., vulnerability to negative affect states such as guilt and depression) and sequelae that differ systematically depending on the broader personality constellations in which they are embedded (e.g., impulsivity vs. constriction, or manifestations of an externalizing vs. an internalizing style). To put it another way, alongside the distinction between common and specific *factors* in response to trauma or other domains (a variable-centered approach), it might prove useful to add a complementary person-centered approach. We should examine the ways different kinds of people respond to abuse or the ways abuse experiences are expressed in multiple, different personality constellations such as an internalizing and an externalizing style. The presence of these different personality constellations in the same sample may lead to null or inconsistent findings in variable-centered analyses of dimensions such as externalizing pathology (see also von Eye & Bergman, 2003). As an example, recent research on personality subtypes among war veterans with PTSD (Miller, 2003) identifies three subtypes: low pathology, internalizing, and externalizing, and these subtypes showed difference in patterns on variables such

as global assessment of functioning (GAF) and depression, and premilitary delinquency. These results are consistent with other research and theory proposing a model of psychopathology based on an internalizing spectrum of disorders (mood and anxiety disorders) and an externalizing spectrum of disorders (substance use and antisocial behavior; Krueger, McGue, & Iacono, 2001).

Our goal in this article is to examine whether patients with CSA show patterned heterogeneity (i.e., more than one pattern of personality functioning) and, if so, to explore the external correlates of the distinct personality styles. Drawing from research on higher-order factors in classification of Axis I disorders, we hypothesized that we would identify three groups of patients in a sample of adult female patients with a history of CSA: an internalizing group, an externalizing group, and a high-functioning group. We predicted that these groups would differ on diagnostic, adaptive functioning, and etiologically relevant variables (see Table 5 for specific hypotheses).

Method

Clinician-Report Methodology, Quantifying Clinical Inference

We used a practice network approach to taxonomic research, in which randomly selected, experienced clinicians provide data on patients that can be aggregated across large samples (Morey, 1988; Westen & Chang, 2000; Westen & Harnden-Fischer, 2001; Westen & Shedler, 1999a, 1999b, 2000; Wilkinson-Ryan & Westen, 2000). Elsewhere we have addressed in detail the rationale for clinician-report data, including advantages and limitations, and briefly summarize these issues here (see Dutra, Campbell, & Westen, 2004; Westen & Shedler, 1999a, 1999b; Westen, Shedler, Durrett, Glass, & Martens, 2003; Westen & Weinberger, 2003). The main advantage is that clinicians are trained, experienced observers, with skills and a normative basis with which to make inferences and recognize nuances in psychopathology. Clinician-report instruments are less vulnerable to defensive and self-presentational biases than self-reports and observations by significant others (see Shedler, Mayman, & Manis, 1993; Westen, Muderrisoglu, Fowler, Shedler, & Koren, 1997). Further, clinical observation is generally longitudinal rather than based on one interview or questionnaire completed on a single day. This can be particularly useful in studying symptoms and personality processes that wax and wane or are subject to mood-dependent biases.

The most important objections to the use of clinicians as informants are the possibility of biases in

clinical judgment (see Grove, Zald, Lebow, Snitz, & Nelson, 2000) and the unknown reliability of any given clinician's ratings. However, recent research using quantified clinician judgments (statistical aggregation of clinician-report data) finds that correlations between treating clinicians' and independent interviewers' assessments of a range of variables (including SWAP-200 scale scores) tend to be large (typically ranging from $r = .50$ to $.80$; Hilsenroth et al., 2000; Westen & Muderrisoglu, 2003; Westen et al., 1997). The structure of clinician-report data using instruments well-validated for self-report and lay informant report (e.g., the Child Behavior Checklist; Achenbach, 1991) for lay informants (e.g., self-reports) is virtually identical to that obtained using more traditional informants (Dutra et al., 2004; Russ, Heim, & Westen, 2003). Clinician-report personality data are associated with a range of variables in theoretically predicted ways, such as measures of adaptive functioning, attachment patterns, and family and developmental history (e.g., Dutra et al., 2004; Westen et al., 2003).

Procedure

The data were collected as part of two studies of personality pathology in the community. For both studies, we surveyed a random national sample of psychiatrists and psychologists with at least 3 years experience post licensure. Across both studies, approximately one third of the clinicians initially contacted participated in the research. In the first study, 530 clinicians described a patient currently in their care who met the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-4*; American Psychiatric Association [APA], 1994) criteria for the Axis II disorders; including the disorders listed in the Appendix or deleted from *DSM-IV* (the latter were included to maximize the breadth of the sample). Complete details of the method and sampling procedure have been described elsewhere (Westen & Shedler, 1999a). We designed the second study to assess the broader range of personality pathology, based on findings that much of the personality pathology treated in clinical practice is subthreshold (Westen, 1997; Westen & Arkowitz-Western, 1998). We asked 168 clinicians to describe a patient with "enduring patterns of thought, feeling, motivation, or behavior that cause distress or dysfunction" but who do not meet criteria for an Axis II disorder as defined by *DSM-IV*. Sampling and assessment procedures were the same for both studies. Here, we include data from both samples to increase generalizability.

We asked clinicians to describe patients 18 or older, without significant psychotic symptoms, treated for a minimum of eight sessions (to maximize the likelihood that

they would be able to provide a thorough description). We solicited data on one patient per clinician. We directed clinicians to select the last person they saw before completing the forms who met criteria. Clinicians were instructed to use only information already available to them from their contacts with the patient so that data collection would not interfere in any way with ongoing clinical work.

Measures

The Shedler–Westen Assessment Procedure-200

The Shedler–Westen Assessment Procedure-200 (SWAP-200) is a set of 200 personality-descriptive statements or items. To describe a patient, a clinician sorts each of 200 statements into eight categories, from those that are least descriptive of the patient (assigned a value of 0) to those that are most descriptive (assigned a value of 7). Thus, the procedure yields a numeric score (0 to 7) for each of 200 personality-descriptive statements. The patient's 200-item profile is then correlated with diagnostic prototypes of each of the Axis II disorders to yield scale scores for both *DSM-IV*-based personality disorders (PDs) and a group of empirically derived PDs, and these scores can be translated into *T* scores (see Westen & Shedler, 1999b).

The SWAP-200 item set subsumes Axis II criteria included in the *DSM-III* (APA, 1980) through the *DSM-IV*, selected Axis I symptoms relevant to personality (e.g., anxiety and depression), and personality constructs described in the clinical and research literatures. Preliminary research has shown high correlations between SWAP-200 descriptions made by treating clinicians and independent interviewers, between independent observers reviewing videotaped interviews, and between clinician ratings and self-reported antisocial and borderline traits (Westen & Muderrisoglu, 2003). Additionally, the SWAP-200 has shown strong evidence of validity in prior research (Dutra et al., 2004; Nakash-Eisikovits, Dierberger, & Westen, 2002; Westen et al., 2003).

Clinical Data Form

The Clinical Data Form (CDF) assesses a range of variables relevant to demographics, diagnosis, and etiology. In addition to basic demographic information, clinicians provide information on *DSM* Axis I and Axis II diagnoses and GAF scores. Prior research has found ratings of adaptive functioning to be highly reliable and to correlate strongly with ratings made by independent interviewers (Heim, Westen, & Muderrisoglu, 2003;

Westen et al., 1997). Specifically with respect to Axis II diagnostic categories, the CDF yields two measures used in this study. First, we asked clinicians to list up to three categorical diagnoses for the patient. Second, we asked clinicians to rate the extent to which the patient met criteria for each Axis II disorder (7-point rating scale: 1 = *not at all*, 4 = *has some features*, 7 = *fully meets criteria*). Validity of such ratings are supported by data from a recent study (unpublished data) in which clinicians made similar ratings as well as present-absent ratings for each of the Axis II criteria for all disorders randomly ordered. Clinicians' global ratings correlated $r = .73$ with number of criteria met for each disorder, a widely used dimensional measure of Axis II disorders (Livesley, Jang, Jackson, & Vernon, 1993).

The CDF also assesses aspects of the patient's developmental and family history of potential relevance to etiology. Developmental history variables include history of adoption, foster care, and residential placements; quality of relationship with mother and father (1 = *poor/conflictual*, 7 = *positive/loving*); attachment history, including significant (more than 6 weeks) separations; parental divorce; general family stability (1 = *chaotic*, 7 = *stable*); and general family warmth (1 = *hostile/cold*, 7 = *loving*). In relation to physical and sexual abuse, the developmental history variables include age at first abuse, duration of abuse in years, frequency of abuse (1 = *once*, 4 = *periodic*, and 7 = *daily*), and severity of abuse (1 = *non-contact exposure/kissing*, 4 = *fondling*, and 7 = *penetration*). Recent studies' support the validity of CDF developmental and family history variables in that they correlate in expected ways with measures of psychopathology and attachment status (e.g., Bradley, Jenei et al., in press; Bradley, Zittel, & Westen, in press; Dutra et al., 2004; Nakash-Eisikovits, Dutra, & Westen, 2003).

Of specific relevance to this study is the clinician's rating of history of sexual abuse. We asked clinicians to rate history of sexual abuse as present, unsure, or absent, and instructed clinicians to mark as "present" only patients they felt confident had a history of sexual abuse. Research using the sampling procedures and methods used in this study finds that doctoral-level clinicians tend to be quite conservative in indicating confidence in sexual abuse history, tending to rate cases with questionable or ambiguous reasons for inference as "unsure." When asked to identify reasons for their belief that a patient had a history of sexual abuse, over 90% of clinicians cited items indicating involvement of authorities such as the police or the Department of Social Services, intact memories of sexual abuse prior to treatment, and corroboration from family members or court records; most relied on the presence of multiple indicators (Wilkinson-Ryan & Westen, 2000).

We did not evaluate the clinician's specialized training in identifying a history of CSA. While doing this may have provided more certainty regarding the classification of CSA history, including only clinicians with expertise or interest in sexual abuse could render the data vulnerable to explanations in terms of artifacts of sampling, thresholds for believing that abuse has occurred, and so forth.

For the present study, we included female patients from the broader samples described above whose clinicians indicated a history of sexual abuse and a comparison sample of nonabused female patients, excluding cases clinicians marked as "unsure." The sample included 74 patients with CSA (80% from the first study and 20% from the second study) and a matched sample of 74 patients (taken in the same percentages of 80/20 from the two studies) without a history of sexual abuse.

Results

Sample Characteristics

Psychiatrists comprised roughly 26% of the participants, with the remaining 74% psychologists. Patients averaged 42 years of age ($SD = 11.16$). The mean GAF score was 64.14 ($SD = 13.94$). Most were middle class (45%) or working class (38%), with 6% described as poor and 10% as upper class. The sample was 98% Caucasian, 27% completed a college degree, and 26% completed some graduate level education, suggesting a relatively well-educated sample. Patients were in treatment for a median of 12 months, suggesting that clinicians knew them well.

Twenty-three percent of clinicians assigned an Axis II diagnosis of BPD, 13% histrionic PD, 13.9% dependent PD, 10.7% narcissistic PD, 11.4% avoidant PD, and 18.2% self-defeating PD. (Clinicians were able to provide up to three Axis II diagnoses, so patients could receive more than one of these diagnoses.) In terms of characteristics of abuse, the average age of onset was 9.11 ($SD = 4.82$) years, and the average duration was 4.19 ($SD = 4.8$) years, with a severity rating of 5.3 ($SD = 1.7$; indicating relatively severe abuse) and frequency rating of 3.51 ($SD = 1.16$; indicating periodic abuse).

A Composite Portrait of Women With a History of Childhood Sexual Abuse

To provide a psychologically rich personality description of patients with CSA in this study, we aggregated the SWAP-200 profiles of all patients with CSA

and arrayed from highest-ranked items to lowest yielding a composite portrait or prototype of the most descriptive features of the personalities of patients with CSA. Women with a history of CSA as a whole are characterized by negative affectivity, expressed in feelings of depression, anxiety, guilt, inferiority, and helplessness. However, superimposed on this negative affectivity is the tendency to have their emotions spiral out of control in ways they cannot regulate. Women with CSA in this sample also are characterized by rejection sensitivity and dependency. At the same time, among the highest-ranked items were descriptors indicating strengths, notably conscientiousness and articulateness. The comparison group of patients with no history of CSA had profiles similarly marked by negative affectivity and by personality strengths such as conscientiousness. However, missing from their profile was difficulty with emotion regulation; rather, they seemed to be marked a slightly more emotionally restrictive style (e.g., difficulty expressing anger).

Identifying Personality Constellations of Women With a History of CSA Using Q-Analysis

To identify personality constellations of women with CSA, we used Q-analysis (also called Q-factor analysis or inverse factor analysis), a technique that has been used effectively in studies of normal and disordered personality (Block, 1978; Caspi, 1998; Robins, John, Caspi, Moffitt, & Stouthamer-Loeber, 1996). Q-factor analysis is essentially a cluster analytic technique in that it aggregates patients rather than variables (i.e., identifies people with similar profiles across a set of variables, rather than items with similar content across cases). Q-analysis as applied here identifies groups of women with a history of CSA with shared personality characteristics that distinguish them from other groups of women with a history of CSA. It has a number of advantages vis-à-vis other cluster analytic techniques, however, including three of particular relevance. First, its mathematical properties are well understood because they are identical to those involved in conventional factor analysis. (The only difference between the two procedures is that the data matrix is inverted, so that cases instead of variables are factored.) Second, it does not require that grouping or clusters be mutually exclusive and instead identifies types or prototypes that patients may approximate to one degree or another, gauged by the correlation between their profile and the prototype or Q-factor. Third, and perhaps most importantly, Q-analysis has repeatedly produced patterns that are coherent and readily interpretable based on the items most central to the prototypes, which could not occur by

chance (e.g., Block, 1971; Westen & Harnden-Fischer, 2001; Westen & Shedler, 1999b).

As in standard factor analysis, we first entered the data from all patients into a principal components analysis specifying eigenvalues ≥ 1 (Kaiser's Criterion). The scree plot suggested a break after five principal components. Thus, we conducted Promax oblique rotations (because of our assumption that patients could resemble more than one prototype to a greater or lesser degree) specifying three, four, and five factors, using multiple estimation procedures. All three rotations yielded three similar Q-factors. The four- and five-factor solutions added a fourth, readily interpretable factor, so, based on coherence of the different solutions, we used the five-factor solution, Principal Axis Factor estimation, that cumulatively accounted for 47.2% of the variance, although multiple algorithms converged on similar Q-factors (as did orthogonal rotations).

Tables 1–4 show the items that best characterized patients who loaded on each Q-factor. In the absence of evidence supporting a categorical or dimensional interpretation of the data, these Q-factors are best understood as prototypes, that is, diagnoses that patients approximate to a greater or lesser degree (Block, 1978; Westen & Shedler, 1999b). We report here the 18 items that emerged as most descriptive of each prototype, that is, those items that yielded the largest factor scores (analogous to factor loading in conventional factor analysis and indexing centrality of the item to the construct). For purposes of parsimony, we chose 18 items because this is the number of items in the two highest "piles" in the Q-sort, i.e., those items that would receive a rank of 6 or 7. The items are arranged in descending order based on factor scores, expressed in standard deviation units that describe the item's magnitude in describing the construct relative to the other items in the item set. We labeled these prototypes *Internalizing Dysregulated*, *High Functioning Internalizing*, *Externalizing Dysregulated*, and *Dependent*.

Patients who match the internalizing dysregulated prototype (Table 1) are characterized by intense distress, interpersonal neediness and desperation, difficulty regulating affect, and a tendency to experience intrusive memories and dissociative symptoms. Patients who match the high-functioning internalizing prototype (Table 2) have many strengths, including the capacity to form relationships with others, ability to express themselves articulately, and ability to set and achieve goals. However, they suffer from problems related to negative affectivity, such as anxiety and a tendency to discount their successes and blame themselves, likely reflecting residual aspects of abuse experiences in the context of an otherwise largely adaptive personality structure. Women matching the externalizing dysregulated prototype (Table 3), like those

Table 1. Empirically Derived Internalizing Dysregulated Subtype

Swap item	Factor score ^a
Tends to feel unhappy, depressed, or despondent	3.25
Tends to fear s/he will be rejected or abandoned by those who are emotionally significant	2.66
Tends to be overly needy or dependent; requires excessive reassurance or approval	2.47
Tends to feel s/he is inadequate, inferior, or a failure	2.32
Is unable to soothe or comfort self when distressed; requires involvement of another person to help regulate affect	2.22
Tends to feel helpless, powerless, or at the mercy of forces outside his/her control	2.18
Tends to feel like an outcast or outsider; feels as if s/he does not truly belong	2.10
Tends to blame self or feel responsible for bad things that happen	2.08
Tends to feel guilty	2.04
Repeatedly reexperiences or relives a past traumatic event (e.g., has intrusive memories or recurring dreams of the event; is startled or terrified by present events that resemble or symbolize the past event)	2.01
Tends to feel misunderstood, mistreated, or victimized	1.95
Tends to be anxious	1.90
Tends to feel ashamed or embarrassed	1.87
Struggles with genuine wishes to kill him/herself	1.83
Tends to feel empty or bored	1.77
Tends to feel listless, fatigued, or lacking in energy	1.74
Tends to enter altered, dissociated state of consciousness when distressed (e.g., the self or the world feels strange, unfamiliar, or unreal)	1.73
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, excitement, etc.	1.67

^aIndicates item's centrality or importance in defining the Q-factor. (The scores are equivalent to factor scores in conventional factor analysis, except that they apply to items, not subjects.)

Table 2. Empirically Derived High Functioning Internalizing Subtype

Swap item	Factor score ^a
Tends to be conscientious and responsible	2.93
Appreciates and responds to humor	2.79
Is articulate; can express self well in words	2.62
Has moral and ethical standards and strives to live up to them	2.57
Is empathic; is sensitive and responsive to other peoples' needs and feelings	2.54
Tends to elicit liking in others	2.17
Is capable of sustaining a meaningful love relationship characterized by genuine intimacy and caring	2.15
Tends to feel guilty	2.15
Is psychologically insightful; is able to understand self and others in subtle and sophisticated ways	2.10
Is able to use his/her talents, abilities, and energy effectively and productively	1.94
Is capable of hearing information that is emotionally threatening (i.e., that challenges cherished beliefs, perceptions, and self-perceptions) and can use and benefit from it	1.92
Tends to be anxious	1.90
Tends to be self-critical; sets unrealistically high standards for self and is intolerant of own human defects	1.75
Is able to assert him/herself effectively and appropriately when necessary	1.75
Enjoys challenges; takes pleasure in accomplishing things	1.74
Has the capacity to recognize alternative viewpoints, even in matters that stir up strong feelings	1.73
Tends to feel s/he is inadequate, inferior, or a failure	1.64
Is able to find meaning and satisfaction in the pursuit of long-term goals and ambitions	1.62

^aIndicates item's centrality or importance in defining the Q-factor. (The scores are equivalent to factor scores in conventional factor analysis, except that they apply to items, not subjects.)

with the internalizing dysregulated style, have difficulty regulating strong affect. However, they appear to be primarily angry at others rather than self-blaming and to manage their emotions in a way that places blame on external rather than internal sources. Patients who match the dependent prototype (Table 4) have many features of dependent and histrionic PD in *DSM-IV*. They tend to idealize others and to fantasize about finding someone who fully understands, loves, and protects them in ways significant others likely did not, but they repeatedly make bad choices in relationships.

Validating the Personality Constellations

To develop a better understanding of the nature and etiology of these personality constellations, we compared them on measures of adaptive functioning, symptomatology, and characteristics of abuse experience (including whether they had experienced childhood physical abuse [CPA]). For ease of interpretation, we grouped patients categorically by personality constellations by correlating the SWAP-200 profile of each CSA patient with each of the four CSA prototypes. We then

Table 3. Empirically Derived Externalizing Dysregulated Subtype

Swap item	Factor score ^a
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, excitement, etc.	3.02
Tends to be angry or hostile (whether consciously or unconsciously)	2.93
Tends to feel misunderstood, mistreated, or victimized	2.78
Tends to get into power struggles	2.56
Tends to express intense and inappropriate anger, out of proportion to the situation at hand	2.49
Tends to react to criticism with feelings of rage or humiliation	2.45
Tends to hold grudges; may dwell on insults or slights for long periods	2.21
Tends to become irrational when strong emotions are stirred up; may show a noticeable decline from customary level of functioning	2.20
Tends to blame others for own failures or shortcomings; tends to believe his/her problems are caused by external factors	1.89
Is quick to assume that others wish to harm or take advantage of him/her; tends to perceive malevolent intentions in others' words and actions	1.87
Tends to "catastrophize"; is prone to see problems as disastrous, unsolvable, etc.	1.79
Tends to be controlling	1.76
Tends to be oppositional, contrary, or quick to disagree	1.73
Is unable to soothe or comfort self when distressed; requires involvement of another person to help regulate affect	1.73
Tends to be critical of others	1.72
Tends to fear s/he will be rejected or abandoned by those who are emotionally significant	1.65
Has little psychological insight into own motives, behavior, etc.; is unable to consider alternate interpretations of his/her experiences	1.62
Tends to feel unhappy, depressed, or despondent	1.60

^aIndicates item's centrality or importance in defining the Q-factor. (The scores are equivalent to factor scores in conventional factor analysis, except that they apply to items, not subjects.)

Table 4. Empirically Derived Dependent Subtype

Swap item	Factor score ^a
Tends to feel s/he is inadequate, inferior, or a failure	2.81
Tends to be suggestible or easily influenced	2.47
Tends to get drawn into or remain in relationships in which s/he is emotionally or physically abused	2.29
Tends to fear s/he will be rejected or abandoned by those who are emotionally significant	2.16
Tends to be ingratiating or submissive (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)	2.13
Fantasizes about finding ideal, perfect love	2.08
Tends to become attached to, or romantically interested in, people who are emotionally unavailable	2.04
Tends to blame self or feel responsible for bad things that happen	2.03
Tends to be anxious	1.99
Tends to be self-critical; sets unrealistically high standards for self and is intolerant of own human defects	1.95
Tends to become attached quickly or intensely; develops feelings, expectations, etc., that are not warranted by the history or context of the relationship	1.88
Tends to feel unhappy, depressed, or despondent	1.84
Lacks a stable image of who s/he is or would like to become (e.g., attitudes, values, goals, and feelings about self may be unstable and changing)	1.80
Tends to be overly needy or dependent; requires excessive reassurance or approval	1.75
Tends to feel helpless, powerless, or at the mercy of forces outside his/her control	1.74
Tends to feel ashamed or embarrassed	1.57
Tends to feel guilty	1.57
Seems to know less about the ways of the world than might be expected, given his/her intelligence, background, etc.; appears naïve or innocent	1.55

^aIndicates item's centrality or importance in defining the Q-factor. (The scores are equivalent to factor scores in conventional factor analysis, except that they apply to items, not subjects.)

assigned patients to the subtype for which they received the highest score, provided the correlation (identical to the structure matrix in an oblique rotation) was $\geq .40$ and that the loading on a given factor was at least .10 higher than on other factors. This provided a relatively conservative test of between-group comparisons, given that some patients had relatively strong loadings on more than one Q-factor. Using this method we were able to classify 62 of the 74 CSA patients (84%). For these analyses,

we also included a comparison group of non-CSA patients.

To maximize power and to avoid capitalizing on spurious findings resulting from running multiple analyses, once we had identified the prototypes using Q-analysis (and prior to examining correlations with other variables), we specified a priori contrasts using contrast analysis to test specific, focal hypotheses (Rosenthal, Rosnow, & Rubin, 2000). We based our hypotheses on item content

of the prototypes and prior research identifying similar prototypes with other samples (Bradley, Zittel Conklin et al., 2005; Westen & Harnden-Fischer, 2001). The hypotheses for each variable are presented in Table 5. Table 5 also describes these analyses and their corresponding effect sizes. As can be seen from the effect size estimates (r), although not all of our predictions were supported (as one would expect given the preliminary nature of the findings), the general patterns strongly support construct validity of the personality prototypes (Zittel & Westen, 2004).

Of particular note are the analyses regarding comparing the groups on 7-point PD ratings (based on CDF data, rather than SWAP-200 data, to maintain the independence of the variables used to classify the subtypes and to assess their validity). Clearly, the four CSA groups differ substantially from one another despite having shared an environmental toxin in childhood. For example, the two emotionally dysregulated groups showed the strongest association with borderline PD, whereas the externalizing dysregulated group alone was associated with paranoid and antisocial dynamics. The internalizing dysregulated group evidenced a tendency toward social withdrawal, as indexed in schizoid, schizotypal, and avoidant PD ratings, in contrast to the dependent group, who tend to be more socially engaged.

Also of note are the findings with respect to several variables selected a priori regarding family environmental context and characteristics of the abuse. In general, the internalizing dysregulated group showed the most disturbed family environment and the most serious pattern of abuse (including a composite measure of severity and frequency), whereas the high-functioning group fared somewhat better. Also of note are the data on physical abuse, which can be read as percentages (because they were dummy-coded 0/1; e.g., $.52 = 52%$). As the data suggest, patients with a more externalizing style were more likely to have a history of physical as well as sexual abuse, although all but the high-functioning internalizing and non-CSA group were likely to have experienced physical abuse.

The use of contrast analysis with a priori predictions minimizes the potential impact of chance findings. Nevertheless, because some of the criterion variables we used to compare the groups are correlated, as a final, preliminary analysis (pending crossreplication in another sample), we used discriminant function analysis to predict sexual abuse category membership from the criterion variables (GAF, PD ratings, and developmental history variables). (For this purpose, we excluded controls to avoid inflating predictive accuracy because some of the predictor variables were related to abuse, such as duration of abuse.) The

first two of three functions together accounted for 92.7% of the between-groups variability and correctly classified 80.6% of cases. This compares very favorably with the approximately 25% hit rate expected by chance, suggesting that indeed the groups differ substantially on variables external to those from which they were derived. (The first function accounted for 57.4% of the between-groups variability and had a canonical correlation of .84, Wilks's $\lambda = .09$, $\chi^2(57) = 118.8$, $p < .001$. The second accounted for 35.3% of the variance and had a canonical correlation of .77, Wilks's $\lambda = .85$, $\chi^2(36) = 58.1$, $p < .01$.)

Discussion

Within the limitations of the methods (described below), the primary findings are as follows. First, the SWAP-200 composite description of women with a history of CSA includes many of the symptoms often identified in the literature on the long-term impact of CSA, notably the tendency to experience depressed mood and negative affectivity more broadly, and difficulty regulating strong emotions. However, this composite description masks the heterogeneity of personality and psychopathology identified using Q-analysis. Consistent with our hypothesis, we identified a group with an internalizing style, a group with an externalizing style, and a higher functioning group. In addition, we identified a fourth group marked by both dependent and histrionic features. The four personality constellations were clinically and theoretically coherent and accounted for roughly half the variance in the dataset using Q-analysis; 84% of the patients in this sample could be assigned to one of four empirically derived classes using a relatively conservative procedure. The prototypes predicted dimensional ratings of Axis II disorders, differences in GAF scores, and ratings of family background including characteristics of the abuse. These analyses provide initial data on the validity of this personality classification. A discriminant function analysis using these criterion variables was able to classify correctly over 80% of patients, substantially better than chance.

These findings converge with those of a small number of studies that have attempted to cluster sexual abuse survivors using self-report measures. In a cluster analysis of women with a history of severe, repeated interpersonal violence, based on Millon Clinical Multiaxial Inventory-II (MCMI-II) profiles, Allen, Huntoon, and Evan (2000) found "Alienated" and "Withdrawn" clusters that shared many characteristics with our "Internalizing Dysregulated" group, including high scores on measures of borderline, avoidant, schizoid, and schizotypal characteristics. They found an "Aggressive" cluster similar to our "Externalizing Dysregulated" cluster, characterized

Table 5. Developmental History, Adaptive Functioning, and Symptomatology in Childhood Sexual Abuse (CSA) Personality Constellations and Non-CSA Comparison Patients

Variable	Internalizing dysregulated (N = 20) M (SD)	High functioning (N = 19) M (SD)	Externalizing dysregulated (N = 11) M (SD)	Dependent (N = 10) M (SD)	No CSA (N = 74) M (SD)	Hypotheses	t (df)	Significance	r
Global assessment of functioning	55.90 (12.61)	70.00 (11.34)	50.78 (12.11)	62.11 (8.95)	67.9 (12.49)	2 > 5 > 4 > 3 > 1	4.84 (140)	<.001	.38
Paranoid	1.85 (1.53)	1.47 (1.02)	3.36 (2.01)	2.56 (1.33)	1.98 (1.09)	3 > 1&4 > 5 > 2	3.62 (145)	<.001	.29
Schizoid	2.05 (1.32)	1.57 (1.02)	1.80 (1.34)	1.50 (0.76)	1.48 (.93)	1 > 2 &3 > 1 &5	2.02 (142)	.05	.17
Schizotypal	1.81 (1.29)	1.11 (.46)	1.89 (1.17)	1.25 (.71)	1.38 (1.13)	1 > 2 &3 > 1 &5	2.07 (142)	.04	.17
Borderline	5.19 (1.81)	2.17 (1.54)	5.20 (2.2)	4.72 (1.86)	3.02 (1.99)	1 > 3 > 4 > 5 > 2	6.07 (143)	<.001	.45
Histrionic	3.57 (1.63)	2.61 (1.54)	3.90 (1.97)	4.50 (1.43)	2.90 (1.74)	4 > 3 > 1 > 2 &4	3.52 (145)	.001	.28
Narcissistic	2.81 (1.47)	2.00 (1.11)	4.00 (1.82)	3.60 (1.57)	2.98 (1.83)	3 > 1 &4 > 2 &5	2.94 (145)	.004	.24
Antisocial	1.52 (1.25)	1.16 (.50)	3.2 (2.10)	2.00 (1.60)	1.57 (1.15)	3 > 1 &4 > 5 > 2	4.25 (143)	<.001	.34
Dependent	4.80 (1.54)	3.32 (1.45)	3.10 (1.85)	4.17 (1.27)	3.61 (2.41)	4 > 1 > 2 &5 > 3	2.40 (146)	.02	.20
Passive-aggressive	3.29 (1.23)	2.71 (1.21)	3.2 (1.62)	3.56 (1.33)	3.04 (1.68)	4 > 3 > 1 > 5 > 2	2.79 (142)	.006	.23
Avoidant	3.86 (1.71)	2.50 (1.69)	2.30 (1.42)	2.75 (1.91)	2.98 (1.97)	1 > 4 > 5 > 2 > 3	2.26 (140)	.03	.19
Obsessive Compulsive	2.52 (1.63)	1.95 (.97)	2.40 (1.84)	2.22 (.97)	2.08 (1.44)	1 &5 > 3 > 4 > 2	2.08 (144)	.04	.17
Sadistic	1.70 (1.26)	1.29 (.85)	3.40 (2.37)	1.67 (.87)	1.53 (1.93)	4 > 1&4 > 5 > 2	4.62 (139)	<.001	.37
Self-defeating	5.19 (1.28)	3.11 (1.49)	3.35 (1.60)	4.80 (1.81)	3.53 (1.75)	1&4 > 3 > 5 > 2	4.36 (142)	<.001	.34
Family warmth	2.10 (.91)	3.32 (1.42)	2.36 (.67)	2.90 (1.20)	3.03 (1.51)	5 > 2 > 3 > 1&4	2.73 (146)	.007	.22
Family stability	3.00 (1.62)	3.74 (1.73)	3.00 (1.35)	3.60 (1.77)	4.58 (1.58)	5 > 2 > 3 > 1&4	3.13 (146)	.002	.25
Severity + Frequency ^a	9.84 (2.12)	8.31 (2.77)	7.63 (2.80)	8.44 (2.40)	-	1&3 > 4 > 2	2.67 (54)	.01	
Sex abuse duration ^b	6.11 (6.21)	2.79 (3.17)	3.09 (3.80)	4.13 (4.85)	-	1&3 > 4 > 2	6.87 (54)	<.001	.68
Physical abuse ^c	.52 (.51)	.16 (.37)	.67 (.49)	.40 (.52)	.15 (.36)	1&3 > 4 > 2 > 5	4.76 (148)	<.001	.41

Note. (N = 122)^a

^aSum of severity and frequency score. ^bDuration is reported in years. ^cPhysical abuse is coded as yes/no with no = 0 and yes = 1.

by high scores on measures of antisocial and borderline characteristics. Their "Suffering Cluster" showed some resemblance to our "Dependent" group, notably lower scores on social isolation, higher scores on characteristics of dependent PD, and moderately elevated scores on histrionic PD. Finally, they also found a high-functioning cluster. In a cluster analysis of psychiatric patients with a history of sexual abuse using the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), Follette, Naugle, and Follette (1997) similarly found a higher functioning group, two groups marked by internalizing, and two groups marked by externalizing (one hostile, and the other passive aggressive). The personality constellations identified in our study also support an emerging perspective on the classification of psychopathology that focuses, like research in children (Achenbach, 1991), on broadband internalizing and externalizing dimensions (Block, 1971; Krueger et al., 2001; Miller, Greif, & Smith, 2003).

Limitations

The study has several limitations. The first pertains to sample size and selection. Given that the *N* is relatively small, these findings have to be considered preliminary and require replication. Although we would have liked to conduct within sample validation, the *N* in this sample precluded this type of validation. However, Q factor analysis requires a far lower *N* than traditional factor analysis (Block, 1978; Thompson, 2000). This is an initial study and we are in the process of conducting follow-up studies that will include split-half validations. Further, although the sample covers the broad spectrum of personality disturbances, from relatively mild to relatively severe, it may be biased towards the more severe end of the PD continuum. However, we did find a high-functioning group, and the composite description of CSA survivors in this sample include strengths such as articulateness and conscientiousness, suggesting that we did capture a range of pathology, as intended. The presence of strengths such as articulateness and conscientiousness in the profiles of the women in this sample may be a result of clinicians choosing to describe a specific group for the research (or simply a characteristic of patients in outpatient psychotherapy). We made an effort to guard against clinician selection biases by instructing them to select their most recently seen patient who met selection criteria. Nevertheless, future research should attempt to replicate these findings using samples with few selection criteria. Second, we relied on data from only one observer, the treating clinician. This limitation, however, is modal in research on sexual abuse (and psychopathology more generally),

which typically relies exclusively on patient self-reports (either by questionnaire or interview). Like the majority of self-report studies, we similarly do not have independent validation of clinicians' classification of these patients as abused. Although as noted in the introduction, we went to substantial efforts to induce clinicians to be very conservative in these judgments, our prior data suggest that we have been successful in doing so. Based on previous findings using other methods, the stronger likelihood is for patients to under- rather than overreport abuse (Widom & Morris, 1997). Clearly, the next step is to collect data from multiple sources. Nevertheless, association of the personality constellations with distinct external criterion provides support for the validity of the clinician report data. Clinicians' ratings of variables such as GAF scores and personality variables when measured using psychometric instruments (rather than the kind of unstructured diagnostic judgments typically included in studies of clinical vs. statistical prediction) tend to correlate strongly with interview-based assessment of the same variables (see Heim et al., 2003; Hilsenroth et al., 2000; Westen, 1997). Third, this sample included mostly Caucasian patients who had been in psychotherapy for approximately one year. As such, the generalizability of the results to a broader sample of women with a history of CSA is unknown. Finally, the data in this study, which are cross-sectional and retrospective vis-à-vis abuse history, cannot be used to indicate causal relations between CSA and personality style(s). Most likely, a number of factors including genetic predispositions and the broader family and community environment (e.g., parental psychopathology or level of community violence) interact with CSA to produce these personality styles. It is also likely that initial responses to CSA influence interpersonal patterns that, in turn, shape responses to the individual, further shaping interpersonal expectations, ways of regulating emotions, and so forth.

Implications

The data have two implications. The first is methodological. To the extent that a single diagnosis or etiological variable may be associated with different personality configurations, we will need to develop more-sophisticated data-analytic procedures that reflect patterned heterogeneity. The presence of such heterogeneity may mask findings (e.g., by including some patients who are too internalizing and some who are not internalizing enough) or yield unreliable estimates of variables such as comorbidity across different samples (e.g., college students vs. patients with CSA, who may be present in different mixtures in different samples).

The second implication regards treatment. Good treatment requires good case formulation (Persons & Davidson, 2001; Westen, 1998). A conceptualization that takes into account personality styles encourages treatment approaches that extend beyond an exclusive focus on specific traumatic symptoms. Further, patients who match these four personality prototypes, while sharing some foci of therapeutic intervention (notably a focus on post-traumatic symptoms and negative affectivity) are likely to differ in their treatment needs. For example, although treatment of internalizing and externalizing dysregulated patients is likely to share a focus on regulating intense affect states, appropriate interventions for these groups will likely differ substantially in the relative focus on decreasing depressive affect and self-hatred versus angry affect and acceptance of responsibility. Finally, the presence of a higher functioning group of patients highlights the importance of identifying factors that contribute to resilience in the face of detrimental developmental experiences.

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