Affect Regulation in Borderline Personality Disorder

Carolyn Zittel Conklin, PhD, Rebekah Bradley, PhD,†‡ and Drew Westen, PhD†‡§*

Abstract: Although difficulty with affect regulation is generally considered a core component of borderline personality disorder (BPD), surprisingly little research has focused on the nature of affect regulation and dysregulation in BPD. A random national sample of 117 experienced clinicians provided data on a randomly selected patient with BPD ($N = 90$) or dysthymic disorder (DD; $N = 27$). Clinicians described their patients using the Affect Regulation and Experience Q-sort-Questionnaire Version, a psychometric instrument designed for expert informants to assess affect and affect regulation. BPD and DD patients appear to differ in both the emotions they experience and the ways they regulate or fail to regulate them. Whereas DD patients are characterized by negative affect, BPD patients are characterized by both negative affect and affect dysregulation, which appear to be distinct constructs. BPD patients also show distinct patterns of affect regulation, and subtypes of BPD patients show distinct affect regulation profiles of potential relevance to treatment.

Key Words: Borderline personality disorder, affect regulation, emotion regulation, AREQ, negative affect, affect dysregulation, emotion dysregulation.

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Difficulty with affect regulation is generally considered a core component of borderline personality disorder (BPD; Linehan, 1993; Sanislow et al., 2002; Westen, 1991, 1998). Many of the diagnostic criteria for BPD (e.g., self-harm, affective instability) reflect or result from emotion dysregulation. (As is common in the literature, we use the terms *affect* and *emotion*, and hence *affect dysregulation* and *emotion dysregulation*, interchangeably.) Empirical data on the precise nature of this dysregulation, however, are sparse. The goal of this article is to characterize the nature of emotion dysregulation in BPD, to compare affective experience and affect regulation strategies in BPD patients with dysthymic disorder (DD) comparison patients, and to see whether BPD patients are homogeneous vis-à-vis their affect regulation strategies or whether previously identified BPD subtypes differ in their affect regulatory profiles.

AFFECT REGULATION, AFFECT DYSREGULATION, AND NEGATIVE AFFECT IN BPD

Affect regulation refers to implicit and explicit efforts to maximize positive and minimize negative moods and feeling states (Westen, 1985, 1994). The term *affect dysregulation* (or *emotion dysregulation*), particularly as applied to BPD, generally refers to a deficiency in the capacity to modulate affect such that emotions spiral out of control, change rapidly, get expressed in intense and unmodified forms, and/or overwhelm reasoning (Linehan and Heard, 1992; Shedler and Westen, 2004a; Westen, 1991, 1998).

Linehan (1993) suggests that vulnerability to emotion dysregulation in BPD is characterized by high sensitivity to emotional stimuli, high emotional intensity, and slow return to emotional baseline once emotional arousal has occurred. Supporting this theory, Yen et al. (2002) found that both affect intensity and affect control related significantly to number of BPD traits even when controlling for level of depression. Ebner et al. (2004) investigated affect regulation in 50 BPD and 50 non-BPD patients using 24-hour psychophysiological ambulatory monitoring. BPD patients reported more negative emotions, fewer positive emotions, and greater intensity of negative but not positive emotions. Nonmedicated BPD patients also had higher heart rate and tended to show higher levels of high-frequency heart rate variability.

Related conceptualizations suggest that individuals with BPD have difficulty recognizing, differentiating, and integrating emotions and emotion-laden representations of the self and significant others (e.g., Kernberg, 1975). This inability to process emotional experience may result in global, undifferentiated affective states that do not direct the individual to effective behavioral or coping responses and instead elicit a range of desperate escape maneuvers, including impulsive or self-destructive actions (Krystal, 1974; Linehan and Heard, 1992; Westen, 1991).

*Cambridge Hospital/Harvard Medical School, Cambridge, Massachusetts; and Departments of †Psychiatry, ‡Behavioral Sciences, and §Psychology, Emory University, Atlanta, Georgia.

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Send reprint requests to Dr. Carolyn Zittel Conklin, Cambridge Hospital, Macht Building, 1493 Cambridge St., Cambridge, MA 02139; or Dr. Drew Westen, Departments of Psychology and Psychiatry and Behavioral Sciences, Emory University, 532 North Kilgo Circle, Atlanta, GA 30322.

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In contrast to affect dysregulation, *negative affect* refers to a tendency to experience anxious and dysphoric (and in some conceptualizations, angry) affective states (Watson and Clark, 1992). A number of studies have documented the centrality of negative affect to BPD (Bradley et al., 2005; Skodol et al., 2002; Trull et al., 2003; Westen et al., 1992; Zanarini et al., 1998; Zittel Conklin and Westen, 2005). Negative affect does not, however, reflect a global failure of affect regulation, nor is it specific to BPD. Rather, it characterizes many disorders on the internalizing spectrum, such as major depressive disorder (MDD) and generalized anxiety disorder (Krueger et al., 2002). Although some conceptualizations explain the affect dysregulation of BPD patients as high negative affect or neuroticism (e.g., Trull et al., 2003), the stably high negative affect of DD patients can be difficult to distinguish from the intermittently extreme dysregulation often superimposed on high baseline negative affect characteristic of many BPD patients, given that both types of patients will self-report high negative affect (Shedler and Westen, 2004a; Westen et al., 1997). One of the goals of this article is to examine emotion dysregulation and negative affect in two groups (BPD and DD) that should differ on one but not on the other if the two constructs are indeed distinct, using a measure with separate scales for each.

A number of maladaptive affect regulation strategies are characteristic of BPD patients. Suicidal and self-harming behavior represent, in part, efforts to escape emotions experienced as overwhelming or intolerable (e.g., Kullgren, 1988; Montgomery et al., 1989; Yen et al., 2002). Brown et al. (2002) identified emotional relief as a primary motivation for suicide attempts in women with BPD. BPD is associated with a number of other maladaptive behaviors likely to serve in part as affect regulation strategies, such as substance use and bulimic episodes (e.g., Vollrath et al., 1996).

Although one might be tempted to paint BPD patients with a single brush, considerable evidence suggests that the BPD diagnosis is highly heterogeneous (Skodol et al., 2002) and that this heterogeneity may be patterned, not random (i.e., the BPD diagnosis may be amenable to subtyping; Bradley et al., 2005; Kernberg, 1967; Leihener et al., 2003; Stone, 1994; Westen and Shedler, 1999b). Several recent studies have identified three replicable BPD subtypes in both adults and adolescents: internalizing-dysregulated, externalizing-dysregulated, and histrionic-impulsive (Bradley et al., In press; Zittel and Westen, 2002). (We use the term *subtypes* here for convenience to refer to personality constellations that patients may resemble to varying degrees, rather than as mutually exclusively categories.) Internalizing-dysregulated patients experience intensely painful emotional states and make desperate efforts to manage them (e.g., through cutting or suicide attempts). Externalizing-dysregulated patients have similarly intense, painful, dysregulated emotional states but tend to be rageful rather than depressed and to try to regulate aversive affect states by blaming or attacking others instead of themselves. Histrionic-impulsive patients tend to experience intense positive as well as negative emotions and attempt to regulate both positive and negative affect through impulsive and sensation-seeking behavior. Several lines of evidence support the validity of these subgroups, including differences in Axis II comorbidity (with the three subtypes tending to show comorbidity with the Cluster C, Cluster A, and Cluster B disorders, respectively), adaptive functioning, and etiology.

GOALS OF THE PRESENT STUDY

The aim of the present study is to characterize the nature of affect regulation and affective experience more broadly in BPD. Despite a substantial theoretical and clinical literature on affect and affect dysregulation in BPD, surprisingly little research has described the precise nature of the affect regulation pathology in BPD. Although a body of research is just emerging on biological correlates of affective phenomena distinct to BPD (e.g., the tendency to interpret neutral social stimuli negatively, manifest in responses ranging from malevolent attributional biases in describing ambiguous social stimuli [Westen, 1991] to amygdala reactivity in response to neutral faces [Donegan et al., 2003]), it is important to characterize accurately the behavior and phenomenology on which to map biological correlates. Thus, this study has three goals: (a) to describe the characteristic patterns of affect and affect regulation in BPD patients, and to identify dimensions on which they can be distinguished from other chronically dysphoric patients (a DD comparison group); (b) to test the hypothesis that BPD patients differ from DD patients in emotion dysregulation but not in negative affect (Westen et al., 1997); and (c) to evaluate differences in affect and affect regulation strategies across BPD subtypes. We focus on both affective experience (the experience of different kinds of emotional states) and affect regulation (efforts to regulate these states) because of the inherent difficulty in distinguishing cleanly between the ways people tend to feel from the ways they try to regulate those feelings particularly in BPD, where many affect regulatory strategies reflect failed efforts to keep intense emotions under control.

METHODS

We obtained quantified data from a random sample of clinicians in the community. Elsewhere, we have addressed in detail the rationale for clinician-report methods (Dutra et al., 2004; Westen and Shedler, 1999a, 1999b; Westen and Weinberger, 2004). The main advantage is that clinicians are experienced observers, whose training and experience provide them with skills and a normative basis from which to make inferences and recognize nuances in psychopathology that may be unfamiliar to lay informants. Clinical observation tends to be longitudinal, which can be particularly useful in studying symptoms and personality processes that wax and wane or are subject to mood-dependent biases.

The most important objection to the use of clinicians as informants is the possibility of biases in clinical judgment (Grove et al., 2000). However, recent research finds substantial evidence for validity of clinician-report data, including large correlations between treating clinicians' and independent interviewers' assessments on a range of variables, including personality variables (typically ranging from $r = .50$ to .80; Westen and Muderrisoglu, 2003; Westen et al., 1997).

Clinician-report personality data are associated with a range of variables in theoretically predicted ways, such as measures of adaptive functioning (e.g., history of arrests, psychiatric hospitalizations, Global Assessment of Functioning ratings), attachment patterns, and etiologic data (Dutra et al., 2004; Nakash-Eisikovits et al., 2002; Russ et al., 2003; Westen et al., 2003).

Participants

Participants were 117 clinicians, comprising a random national sample of experienced psychiatrists and psychologists recruited from the membership registers of the American Psychiatric and American Psychological Associations. As described elsewhere in more detail (Zittel Conklin and Westen, 2005), initial letters to clinicians described the study and presented them with diagnostic criteria for BPD and DD (selected as a comparison condition). Based on data provided by clinicians on return postcards, we assigned them to describe either a BPD ($N = 90$) or DD ($N = 27$) patient, including again a reference list of DSM-IV diagnostic criteria for DD and/or BPD to maximize accurate diagnosis. We instructed clinicians that if they had more than one patient in their care who met study criteria, they should select the patient they saw most recently before beginning to complete the materials, to ensure random selection of patients and to safeguard against clinicians choosing prototypic cases. For the DD group, we asked clinicians to describe a current patient who met DSM-IV criteria but did not meet criteria for any PD and did not meet ≥4 BPD criteria.

We asked clinicians to select a female patient (to avoid gender confounds) between age 18 and 55 (to avoid confounds associated with age) whom they had seen for a minimum of eight sessions and a maximum of 2 years (to guarantee that they knew the patient well while minimizing the likelihood of substantial personality change in treatment), and who did not have a diagnosis of any psychotic disorder. We selected a comparison group of patients with DD because patients with depression have been the most common comparison group in PD studies, and patients with DD have enduring depression also common in patients with BPD. Because many of the identified DD patients met criteria for one or more PDs (as in other studies of DD patients; Pepper et al., 1995; Riso et al., 1996) or had chronic depression but fell one criterion short of full DSM-IV criteria for DD, to maximize generalizability, we retained these patients as long as they did not meet BPD criteria. Thus, roughly one third of the DD sample had a PD diagnosis.

To maximize participation and minimize data entry errors, we gave clinicians the option to participate by pen and paper or using our interactive Web site (www.psychsystems.net). Consistent with the literature on computerized versus paper administration of questionnaires (Butcher et al., 2000), we found no systematic differences between responses using the two methods on any variable of interest.

Measures

Measures included in the protocol and relevant to the present article include the following.

Demographic and Diagnostic Data

Clinicians completed the Clinical Data Form, which assesses a range of variables relevant to demographics and diagnosis. This measure has been developed over several years and has been used in a number of studies. (For a more detailed description of the Clinical Data Form, see Dutra et al., 2004; Zittel Conklin and Westen, 2005). In addition, clinicians completed a checklist of all criteria for all DSM-IV PDs, randomly ordered, so that we could assess Axis II pathology both dimensionally (number of symptoms met) and categorically (applying DSM-IV cutoffs).

Affect Regulation and Experience Q-Sort-Questionnaire Version

The Affect Regulation and Experience Q-sort-Questionnaire Version (AREQ-QV; Westen et al., 1997; Zittel and Westen, 2002) is a 98-item questionnaire designed to allow experienced clinician-informants to rate patients on multiple components of affective experience and affect regulation. AREQ items were derived from research and theoretical literature on affect and affect regulation and from the item content of self-report questionnaires assessing emotional experience and coping. Items are written in a way that minimizes inferential leaps and jargon, enabling reliable description of subtle processes across judges (e.g., "Has trouble recognizing or remembering anything positive when feeling bad; when things are bad, everything is bad," to assess what is often called "catastrophizing" in one theoretical language and an aspect of "splitting" in another). The item set includes items designed to assess explicit cognitive coping strategies; behavioral strategies for regulating affects, such as drug use; and implicit affect regulation strategies (defenses) in relatively straightforward, behavioral language.

The AREQ-QV used in this study is a Likert-type questionnaire version of the Q-sort instrument. A normative study ($N = 181$) identified four affective experience factors, including negative affect, affective availability (ability to experience a range of emotions), emotion dysregulation, and positive affect; and five affect regulation factors, including externalizing strategies (e.g., "Tends to blame others for own mistakes or misdeeds"), emotional avoidance (e.g., "Can think of upsetting ideas or memories but does not feel the attendant emotion"), reality-focused coping (e.g., "Tends to respond flexibly to challenging or stressful situations"), internalizing strategies (e.g., "Tends to feel bad or unworthy instead of feeling appropriately angry at others"), and disorganized strategies (e.g., "Behaves in manifestly self-destructive ways when upset; e.g., fast driving, wrist cutting," so named because of the link to disorganized/unresolved attachment patterns; e.g., Cassidy and Mohr, 2001; Shaver and Mikulincer, 2002). Coefficient α values ranged from adequate to good ($\alpha = .71$ to .88), and AREQ scales show high interrater reliability and validity (e.g., predicting global functioning and diagnosis; Westen et al., 1997).

RESULTS

Of the 117 clinicians who participated, 19% were psychiatrists and 81% were psychologists (a proportion re-

flecting differential response rates in this and similar research); 42% were female; and the majority had at least some private practice patients (88%), although most worked in other settings instead or as well (e.g., 26% in a hospital inpatient, outpatient, or partial hospital setting). Clinicians varied in theoretical orientation, with 21% describing their psychotherapeutic orientation as cognitive-behavioral or behavioral, 44% as psychodynamic, and 32% as eclectic.

Patients averaged 38 years of age ($SD = 10.14$) and were predominantly Caucasian (88%), with roughly 5% Hispanic and the remainder primarily African American or Asian. Clinicians rated SES of patients' families of origin as 3% poor, 33% working class, 47% middle class, and 16% upper class. On average, BPD patients in the sample had a Global Assessment of Functioning score of 47.62 ($SD = 9.67$), had made 2.72 ($SD = 5.89$) suicide attempts, and had 2.32 ($SD = 5.36$) prior psychiatric hospitalizations, suggesting that these patients are indeed quite psychiatrically disturbed and resemble BPD patients identified using structured interviews. Comorbid major depression (MDD) was present in 69.2% of the patients with a BPD diagnosis and 22% of the patients with a DD diagnosis (covarying for presence/absence of MDD did not have a substantial impact on the differences between the DD and BPD patients). We used multiple validity checks to insure that patients in the BPD sample were in fact BPD by DSM-IV criteria (Zittel Conklin and Westen, 2005).

Affect Regulation in BPD

To assess features of affective experience and affect regulation that distinguish BPD patients from comparison subjects, we used *t* tests to compare BPD patients with DD patients on AREQ factor scores (Table 1). Predicted differences are in bold. As can be seen, the two groups showed differences on all the variables as predicted, as well as on two additional variables for which we had no predictions. With respect to patterns of affect, the results support the distinction between affect dysregulation and negative affect: BPD patients were significantly higher than DD patients on the former but were indistinguishable from them on the latter. BPD patients were also lower on the affect availability factor, which measures the extent to which the patient has access to a full range of emotions and can readily distinguish emotional states. With respect to affect regulation, BPD patients received higher scores on all affect regulation factors except reality-focused coping. The only unexpected finding was the higher BPD mean on emotional avoidance, perhaps suggesting a tendency of some BPD patients to distance themselves from uncomfortable affective states with which they cannot cope effectively. The data from these analyses resemble our preliminary findings using the AREQ Q-sort with a smaller, less well characterized sample of patients (Westen et al., 1997).

To provide a richer description of patterns of affect and affect regulation more broadly characteristic of BPD patients (and, by comparison, DD patients), we created composite portraits, one of the average BPD patient and one of the average DD patient in the sample, by aggregating AREQ item scores for each of the 98 items and averaging them across the 90 BPD patients and 27 DD patients (for the theoretical rationale for such composites, see Block, 1978; Shedler and Westen, 2004b; Westen and Shedler, 1999a). Table 2 lists items with average ratings in the top 20% of items for the BPD composite portrait (i.e., the items most descriptive of the average BPD patient). As can be seen, the BPD composite included many items consistent with DSM-IV BPD diagnostic criteria, including intense and labile affects, undercontrolled anger, and alternation between idealization and devaluation. Other items central to the BPD construct received only moderate scores, including, "Tends to dissociate when distressed (e.g., to feel like s/he has left his/her body, or that his/her emotions are somewhere else)" (m = 2.69), and "Tends to use drugs or alcohol to avoid facing distressing feelings or situations" (m = 2.30). These findings are consistent with recent research showing that low-base rate behavioral characteristics such as dissociation and drug abuse often distinguish BPD patients from other PD patients but are highly intermittent, often not occurring within any given 1-year or 2-year period (Shedler and Westen, 2004b). The data are also consistent with longitudinal research showing that many of these high-salience affect regulation strategies

TABLE 1. Affective Experience and Affect Regulation in Patients With BPD and DD[a]

	BPD ($N = 90$)		DD ($N = 27$)		Analyses			
	M	*SD*	*M*	*SD*	*df*	*t*	*p*	*r*
Affective experience								
Negative affect	3.72	.67	3.66	.69	115	.41	0.68	.04
Affective availability	**2.61**	**.61**	**3.53**	**.72**	**115**	**−6.54**	**<0.001**	**.52**
Emotional dysregulation	**3.67**	**.52**	**2.22**	**.56**	**115**	**12.45**	**<0.001**	**.76**
Positive affect	2.18	.93	2.19	.67	115	−.02	0.99	.00
Affect regulation								
Externalizing strategies	**2.97**	**.84**	**1.81**	**.70**	**115**	**6.54**	**<0.001**	.52
Emotional avoidance	2.44	.61	1.99	.55	115	3.55	0.001	.31
Reality-focused coping	**2.31**	**.59**	**3.06**	**.67**	**115**	**−5.55**	**<0.001**	.46
Internalizing strategies	3.24	.61	2.81	.70	115	3.14	0.002	**.28**
Disorganized strategies	**2.86**	**.88**	**1.44**	**.54**	**115**	**7.95**	**<0.001**	**.60**

[a]Hypothesized differences in bold.

TABLE 2. AREQ Items Most Descriptive of Affective Experience and Affect Regulation in BPD

Item	Mean[a]	*SD*
Has trouble recognizing or remembering anything positive when feeling bad; when things are bad, everything is bad	4.64	.53
Tends to feel unpleasant emotions (sadness, anxiety, guilt, etc.) intensely	4.43	.82
Tends to become overwhelmed or disorganized by emotion	4.28	.75
Tends to feel sad or unhappy	4.27	.83
Tends to ruminate or dwell on concerns when distressed	4.01	.87
Tends to feel anxious	3.99	.83
Has difficulty seeing other people's perspective when emotions get strong	3.92	.96
When distressed, tends to vacillate between clinging to others and pushing them away	3.87	1.12
Tends to be angry or hostile (whether or not this is consciously acknowledged)	3.86	1.03
Tends to lash out at others when distressed or angry	3.83	1.12
Tends to become needy, dependent, and clingy when distressed	3.81	1.16
Is prone to tantrums and angry outbursts when thwarted or frustrated	3.61	1.35
Can plunge into deep despair that lasts for several weeks	3.60	1.23
Tends to feel guilty	3.58	1.06
Expresses emotion in exaggerated and theatrical ways	3.52	1.27
Tends to devalue some people, seeing them as "all bad," to the exclusion of any virtues	3.51	1.33
Feelings tend to change rapidly from moment to moment	3.49	1.17
Tends to feel ashamed, embarrassed, or humiliated	3.44	1.19
Tends to idealize some people, seeing them as "all good," to the exclusion of commonplace human defects	3.38	1.21
Tends to be indecisive and vacillating when faced with choices	3.38	1.10

[a]Items listed in descending order of magnitude.

TABLE 3. AREQ Items That Best Describe DD

Item	Mean[a]	*SD*
Tends to feel sad or unhappy	4.15	.91
Tends to feel guilty	3.93	1.00
Is able to experience a full range of emotions	3.63	1.08
Tends to feel unpleasant emotions (sadness, anxiety, guilt, etc.) intensely	3.59	.97
Tends to feel anxious	3.52	.64
Is able to use and benefit from help and advice when distressed	3.52	.94
Tends to experience regret	3.52	.80
Tends to feel bad or unworthy instead of feeling appropriately angry at others	3.52	1.16
Has the ability to reflect and postpone action until emotions are calm	3.41	.80
Is able to anticipate problems and develop realistic plans for dealing with them	3.37	1.01
Is able to express impulses in ways that are socially acceptable or desirable	3.37	1.11
Is able to remain goal-directed even in distressing circumstances	3.33	1.07
Tends to ruminate or dwell on concerns when distressed	3.33	1.14
Is able to see the humor in difficult situations	3.26	1.10
Tends to remain passive in the fact of conflict or distress; avoids taking action to cope with difficult situations	3.22	1.19
Tends to feel ashamed, embarrassed, or humiliated	3.19	1.00
Tends to cope with distress by seeking out information and knowledge	3.19	1.04
Tends to avoid confrontations even when s/he has legitimate grievances	3.19	1.30

[a]Items listed in descending order of magnitude.

are unstable over time (e.g., Grilo et al., 2000; Warner et al., 2004; Zanarini et al., 2003).

For comparison, Table 3 lists the corresponding top 20% of AREQ items for the DD sample. DD patients tend to feel dysphoria, anxiety, shame, guilt, and regret. When distressed, they are prone to rumination and indecision. They tend to feel bad or unworthy instead of feeling appropriately angry with others and typically remain passive in the face of legitimate anger and difficult situations. However, unlike the average BPD patient, the average DD patient is able to make use of many adaptive coping resources.

Affect Regulation in BPD Subtypes

The composite portrait of BPD presented here makes considerable clinical and empirical sense; however, it assumes that all BPD patients are similar, with scores on various measures (e.g., positive affect) randomly distributed around a single mean. In the next set of analyses, we considered the hypothesis that BPD patients may be patterned in their heterogeneity, such that patients who match one of the subtypes previously identified with this sample may show substantial differences in patterns of affect and affect regulation vis-à-vis patients who more closely approximate one of the other subtypes. To test this hypothesis, we assessed the relationship between the three BPD subtypes (internalizing-dysregulated, externalizing-dysregulated, and histrionic-impulsive) and AREQ-QV factors using contrast analysis. (For ease of interpretation, we report here subtype data treated categorically, although dimensional analyses yielded a similar pattern of findings; see Rosenthal et al., 2000). To assign patients to one of the three BPD subtypes, we identified patients with ≥.50 loadings on one or more BPD subtype (N = 71) and used their highest loading to assign group membership. (This procedure yields conservative results, favoring Type II over Type I errors, given that some patients had high loadings on more than one subgroup.)

As can be seen in Table 4, most of the hypotheses (planned comparisons) were supported. We included DD patients for comparison to sharpen some of the analyses, particularly where we expected some of the BPD subtypes to resemble DD patients (e.g., on negative affect), although the findings were similar when we excluded the DD patients. For example, histrionic-impulsive patients experience strong positive as well as negative affect states, rendering them quite

TABLE 4. Differences in Affect and Affect Regulation Among BPD Subtypes and Dysthymic Comparison Patients

Variable	Internalizing-Dysregulated ($N = 27$)		Externalizing-Dysregulated ($N = 32$)		Histrionic-Impulsive ($N = 12$)		DD ($N = 27$)		Contrast Analyses			
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	Hypotheses	*t* (*df*)	Sig.	*r*
Affective experience												
Negative affect	4.17	.49	3.69	.69	3.35	.48	3.66	.69	1&4 > 2&3	2.93 (94)	0.002	.29
Affective availability	2.76	.50	2.29	.52	3.13	.51	3.53	.72	4 > 3 > 1 > 2	7.85 (94)	<0.001	.63
Emotion dysregulation	3.65	.54	3.80	.37	3.84	.69	2.22	.56	1&2 > 3 > 4	10.18 (94)	<0.001	.72
Positive affect	1.86	.78	1.94	.82	3.53	.64	2.19	.67	3&4 > 1&2	5.87 (94)	<0.001	.52
Affect regulation												
Externalizing strategies	2.37	.57	3.62	.57	2.69	.77	1.81	.70	2 > 3 > 1&4	10.05 (94)	<0.001	.72
Emotional avoidance	2.41	.50	2.45	.61	2.08	.48	1.99	.55	1&2 > 3&4	3.30 (94)	<0.001	.32
Reality-focused coping	2.46	.54	1.94	.44	2.83	.48	3.06	.67	4 > 1&3 > 2	7.08 (94)	<0.001	.59
Internalizing strategies	3.57	.59	3.15	.49	2.65	.66	2.81	.70	1&4 > 2&3	2.21 (94)	0.015	.22
Disorganized strategies	3.04	.82	2.69	.81	2.79	1.02	1.44	.54	1 > 2 > 3 > 4	6.22 (94)	<0.001	.54

different from the two dysregulated groups, who experience strong negative affect but lack the extroversion (or its close cousin, positive affect) often viewed as characteristic of BPD (Trull et al., 2003). The subtypes also differed substantially in their use of affect regulation strategies, with some using more externalizing strategies and others, internalizing.

To provide richer descriptions of the characteristic patterns of affective experience and affect regulation of the three BPD subtypes, we created AREQ composites, as described, aggregating item scores across the 27 patients assigned to the internalizing-dysregulated subtype, the 32 patients assigned to the externalizing-dysregulated subtype, and the 12 patients assigned to the histrionic-impulsive subtype. Tables 5 through 7 report the items with average ratings in the top 20% for each composite portrait.

DISCUSSION

The data provide a relatively comprehensive empirical description of the phenomenology of affect regulation and dysregulation in BPD. The results highlight the centrality of both negative affect and emotion dysregulation in characterizing affective experience of patients with BPD. However, emotion dysregulation rather than either negative or positive affect appears to distinguish patients with BPD from those with DD. Both the DD and the BPD patients showed high levels of negative affect and low levels of positive affect.

With respect to affect regulation strategies, BPD patients employ a range of maladaptive processes, including internalizing strategies, externalizing strategies, emotional avoidance, and disorganized strategies suggesting desperate, flailing, impulsive attempts to escape psychological pain. Some of the behaviors widely viewed as highly characteristic of BPD, such as self-harm and suicidal actions, did distinguish BPD from DD patients but do not appear to be constant aspects of their pathology. The fact that these characteristics, including several that are diagnostic criteria for the disorder, appear to emerge only in times of extreme stress in BPD patients may help explain emerging data on the instability of

TABLE 5. AREQ Items That Best Describe Internalizing-Dysregulated BPD Patients ($N = 27$)

Item	Mean[a]	*SD*
Has trouble recognizing or remembering anything positive when feeling bad; when things are bad, everything is bad	4.85	.36
Tends to feel sad or unhappy	4.74	.45
Tends to feel unpleasant emotions (sadness, anxiety, guilt, etc.) intensely	4.67	.55
Tends to become overwhelmed or disorganized by emotion	4.44	.51
Tends to ruminate or dwell on concerns when distressed	4.33	.55
Tends to feel anxious	4.30	.67
Tends to feel ashamed, embarrassed, or humiliated	4.07	.87
Tends to feel guilty	4.07	.83
Can plunge into deep despair that lasts for several weeks	4.04	.90
Tends to feel bad or unworthy instead of feeling appropriately angry at others	4.00	1.00
Tends to become needy, dependent, and clingy when distressed	3.81	1.39
Tends to avoid discomfort by keeping people at a distance	3.81	.96
When distressed, tends to vacillate between clinging to others and pushing them away	3.78	1.19
Tends to remain at home or restrict travel or activities to escape distress	3.74	1.29
Tends to experience regret	3.67	.92
Has difficulty seeing other people's perspective when emotions get strong	3.63	.97
Tends to express hostility in passive and indirect ways (e.g., procrastination, "forgetting" dates or responsibilities, becoming sulky)	3.59	.84
Appears to turn emotional conflicts into physical symptoms (e.g., headaches, stomachaches, backaches)	3.56	1.05
Unpleasant memories or powerful emotions seem to "come out of the blue" and intrude on consciousness	3.52	1.37

[a]Items listed in descending order of diagnostic import.

TABLE 6. AREQ Items That Best Describe Externalizing-Dysregulated BPD Patients ($N = 32$)

Item	Mean[a]	*SD*
Has trouble recognizing or remembering anything positive when feeling bad; when things are bad, everything is bad	4.72	.46
Tends to lash out at others when distressed or angry	4.69	.47
Tends to feel unpleasant emotions (sadness, anxiety, guilt, etc.) intensely	4.66	.48
Has difficulty seeing other people's perspective when emotions get strong	4.53	.72
Tends to be angry or hostile (whether or not this is consciously acknowledged)	4.50	.57
Is prone to tantrums and angry outbursts when thwarted or frustrated	4.47	.76
Tends to become overwhelmed or disorganized by emotion	4.44	.72
Tends to feel sad or unhappy	4.38	.75
When distressed, tends to vacillate between clinging to others and pushing them away	4.16	.68
Tends to feel anxious	4.13	.75
Expresses emotion in exaggerated and theatrical ways	4.13	.94
Tends to ruminate or dwell on concerns when distressed	4.09	.93
Tends to devalue some people, seeing them as "all bad," to the exclusion of any virtues	4.06	1.16
Tends to become needy, dependent, and clingy when distressed	4.00	.84
Tends to blame others for own mistakes or misdeeds	3.91	.96
When distressed, tends to try to control others	3.88	.79
Tends to feel disgusted with people or situations	3.78	.91
Tends to distort beliefs substantially to fit the way s/he wants to see reality	3.69	1.00
Feelings tend to change rapidly from moment to moment	3.69	1.23
Tends to idealize some people, seeing them as "all good," to the exclusion of commonplace human defects	3.66	1.07
Tends to see own unacceptable feelings or impulses in others instead of in him/herself	3.63	.83

[a]Items listed in descending order of diagnostic import.

TABLE 7. AREQ Items That Best Describe Histrionic-Impulsive BPD Patients ($N = 12$)

Item	Mean[a]	*SD*
Has trouble recognizing or remembering anything positive when feeling bad; when things are bad, everything is bad	4.42	.51
Tends to feel unpleasant emotions (sadness, anxiety, guilt, etc.) intensely	4.33	.65
Tends to feel pleasant emotions (happiness, joy, excitement, etc.) intensely	4.17	.72
Is able to experience a full range of emotions	4.17	.72
Tends to feel sad or unhappy	4.08	1.00
Feelings tend to change rapidly from moment to moment	4.00	1.21
Tends to become overwhelmed or disorganized by emotion	4.00	.85
Expresses emotion in exaggerated and theatrical ways	3.92	.90
Tends to ruminate or dwell on concerns when distressed	3.92	.90
Is able to see the humor in difficult situations	3.83	.72
When distressed, tends to vacillate between clinging to others and pushing them away	3.83	1.34
Tends to feel anxious	3.75	.75
Is able to use and benefit from help and advice when distressed	3.75	1.06
Tends to feel excited or energized	3.75	.75
Tends to become needy, dependent, and clingy when distressed	3.67	.78
Is able to draw comfort from being with others when distressed	3.67	1.44
Tends to lash out at others when distressed or angry	3.67	.65
Tends to idealize some people, seeing them as "all good," to the exclusion of commonplace human defects	3.50	.67
Tends to experience regret	3.50	1.24
Has little capacity to delay gratification	3.42	.90

[a]Items listed in descending order of diagnostic import.

the BPD diagnosis longitudinally (Grilo et al., 2000; Warner et al., 2004; Zanarini et al., 2003).

The three BPD subtypes share a common core of dysphoric/anxious emotions, difficulty regulating these emotional states, and a tendency to become submerged in such states, such that "when things seem bad, everything is bad" (the highest-ranked item among the 98 items in the Q-sort for all three subtypes). However, the subtypes differed substantially in patterns of affect and affect regulation. For example, histrionic-impulsive BPD patients share emotion dysregulation and negative affect with the other two subtypes, but they also have high levels of positive affect not characteristic of the other subtypes. Unlike the other subtypes (or the DD patients), however, histrionic-impulsive patients do not tend to use internalizing strategies to manage their emotions.

Internalizing-dysregulated patients appear consistently dysphoric and vacillate between emotional constriction and flooding. Unlike the prototypical view of BPD (and the description of the disorder in DSM-IV), they have particular difficulty acknowledging or directly expressing anger and are prone to feel worthless, rotten to the core, and worthy of self-hatred. They are particularly vulnerable to internalizing coping and defensive processes and correspondingly self-directed behavior such as self-mutilation and suicide attempts. Although also vulnerable to negative affect and emotion dysregulation, externalizing-dysregulated patients tend to cope with these feelings using externalizing strategies, attacking or trying to control others rather than themselves. Histrionic-impulsive patients tend toward impulsivity with an inability to delay gratification.

The findings lend support to models of treatment that emphasize the importance of affect regulation in treating BPD. Perhaps the most important aspect of Dialectical Behavior Therapy (Linehan, 1993) is its explicit, well-justified approach to treating deficits in affect regulation. Psychodynamic therapies that have been studied empirically (e.g.,

Bateman and Fonagy, 2003) attempt to address the vulnerability to negative affect states and affect dysregulation (e.g., problematic internal working models of self and other that leave the patient vulnerable to rejection or feelings of emptiness) and the problematic affect regulation strategies that emerge from chaotic or otherwise traumatic attachment relationships. Given that subgroups of BPD patients display very different patterns of affect regulation, we may need to tailor intervention strategies to different forms of affect regulatory pathology in BPD patients. It seems unlikely, for example, that the same techniques or therapeutic stance likely to be helpful in treating significant internalizing pathology will be optimal for addressing externalizing strategies such as the tendency to blame others for the sources of one's difficulties.

The primary limitation of the study is that we relied exclusively on one observer, the treating clinician, for both diagnostic data and data on affect regulation, raising the possibility that clinicians' biases may have influenced the results. Although most studies of psychopathology have the same limitation (reliance on a single observer, usually the patient, whether by questionnaire or structured interview), clearly the next step is a study drawing on multiple informants and laboratory measures of affect and affect dysregulation.

Several factors, however, limit this concern. First and foremost, in prior research, we have found high correlations between AREQ data provided by treating clinicians and independent interviewers (Westen et al., 1997), just as we have found high correlations between treating clinicians and independent interviewers using psychometric instruments to assess personality pathology (Westen and Muderrisoglu, 2003). Second, it is unclear that the quantified observations of experienced clinical observers who have worked with a patient over many months are to be trusted less than the quantified self-observations of patients for whom lack of insight is diagnostic. Third, clinicians with different theoretical orientations did not differ in their AREQ descriptions of BPD or DD patients. This would be unlikely if clinicians' theoretical biases were substantially influencing their observations, particularly given that most of the 98 items on the AREQ have no representation among the nine BPD criteria in DSM-IV. Finally, the differences among the BPD subtypes could not be reducible to clinician bias given that the clinicians were unaware of these subtypes. The presence of distinct subtypes (and the fact that the patients in this sample, as in all our previous studies using this methodology, show the same ubiquitous patterns of Axis II comorbidity as found in studies using structured interviews) also militates against the hypothesis that clinicians might have been selecting prototypic patients with prototypic BPD and DD affect regulation patterns rather than following instructions to select a random patient who met study criteria.

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