Published in final edited form as:

J Pers Disord. 2011 December ; 25(6): 851–862. doi:10.1521/pedi.2011.25.6.851.

Positive Affective and Cognitive States in Borderline Personality Disorder

Lawrence Ian Reed, Ph.D. and Mary C. Zanarini, Ed.D.

Laboratory for the Study of Adult Development, McLean Hospital, and the Department of Psychiatry, Harvard Medical School.

Abstract

The aim of the current study was to compliment previous studies identifying negative states present in borderline personality disorder by investigating the presence of positive affective and cognitive states. Ninety-six patients with criteria-defined borderline personality disorder and 24 axis II comparison participants completed the Positive Affect Scale, a 50-item self-report measure designed to assess positive states thought to be characteristic of borderline patients (and axis II comparison participants). Seventeen positive states (4 affective, 10 cognitive, and 3 mixed) were found to be significantly more common among axis II comparison participants than borderline patients. Twelve of these states were common to both borderline patients and axis II comparison participants. Furthermore, 4 positive states, when co-occurring together, were particularly strongly associated with borderline personality disorder (three negatively and one positively): (a) Fond of myself, (b) That things around me are real, (c) That I've forgiven others, and (d) Assertive. Finally, the overall mean score on the PAS significantly distinguished patients with borderline personality disorder from axis II comparison participants. Taken together, these results suggest that borderline patients are far less likely to report experiencing positive states of an affective, cognitive, and mixed nature than axis II comparison participants. They also suggest that being assertive is a positive state particularly discriminating for borderline personality disorder.

Introduction

Decades of theoretical papers and empirical studies focusing on the affective and cognitive components present in borderline personality disorder (BPD) have aimed to provide a complete diagnostic picture of the illness. In this, the works of early theorists have firmly established negative emotional stability and lability as core features present in individuals suffering from BPD. Early definitions have noted aggressive tendencies (Deutsch, 1942), rage outbursts and affect hunger (Rado, 1956), and anger as the only affect (Grinker, Werble, & Drye, 1968). Current conceptualizations have maintained this emphasis, focusing in large part on the presence, tolerance, and regulation of emotional pain (Beck & Freeman, 1995; Linehan, 1993; McGinn & Young, 1996; Young, Klosko, & Weishaar, 2003; Zanarini & Frankenburg, 1997).

Characteristic cognitions specific to BPD have also received attention. Early conceptualizations placed BPD on the border of classical psychotic disorders (Hoch & Polatin, 1949; Zilboorg, 1941). More recently, there has been evidence that disturbed cognitions (e.g., overvalued ideas, depersonalization, ongoing distrust and suspiciousness) are common but true psychotic thought is rare in borderline patients (Chopra & Beatson,

1986; Pope, Jonas, Hudson, Cohen, & Tohen, 1985; Zanarini, Gunderson, & Frankenburg, 1990).

Despite this large focus on emotional (and cognitive) instability, there have been relatively few studies concerning specific affective states and cognitions present in BPD. Those empirical studies that have attempted to identify specific affective and cognitive themes present in BPD have focused solely on negative aspects. For example, Giesen-Bloo and Arntz (2003) found three cognitive themes present in BPD: The world is dangerous and malevolent, I am powerless and vulnerable, and I am inherently unacceptable. Furthermore, several studies have identified specific negative affective states and cognitions unique to BPD. Zanarini and colleagues found specific dysphoric states unique to BPD falling in clusters of: (a) extreme feelings, (b) destructiveness or self-destructiveness, (c) fragmentation or identitylessness, and (d) victimization (Zanarini, et al., 1998). Additionally, Arntz, Klokman, and Sieswerda (2005) demonstrated that patients suffering from BPD were characterized by four specific themes when compared to Cluster C and non-psychiatric control subjects: detached protector, abandoned/abused child, angry child, and punitive parent. Finally, a recent study showed that patients with BPD scored higher on items on the Personality Belief Questionnaire (Arntz, Dietzel, & Dreessen, 1999) reflecting themes of dependency, helplessness, distrust, rejection/abandonment fear, fear of losing emotional control, and histrionic behavior as compared to patients with other axis II diagnoses (Butler, Brown, Beck, & Grisham, 2002).

Together, these studies speak to the strong negative feelings and maladaptive cognitions present in BPD representing intense interpersonal vulnerability and emotionality. Although they shed light on themes regarding characteristic negative affective states and cognitions present in BPD as well as those more unique to BPD, there exists no studies concerning specific positive affective states and cognitions uniquely present (or absent) in BPD. As a result, despite numerous studies investigating affective and cognitive components present in BPD, current conceptualizations remain incomplete.

The aim of the current study is to complement previous studies identifying negative affective states and cognitions present in BPD by investigating the presence of positive affective states and cognitions. Such work, in addition to previous studies investigating characteristic negative affective and cognitive themes, would provide a more comprehensive picture of BPD as well as the possibility of enhancing diagnostic specificity and influencing treatment protocols.

Methods

Participants

All participants included in the current study were inpatients at McLean Hospital in Belmont, Massachusetts admitted between *June, 1992* and *December, 1995* asked to participate in a large study investigating the longitudinal course of BPD—the McLean Study of Adult Development (MSAD) (Zanarini, et al., 1997). Inclusion criteria were (a) an age range between 18 and 35, (b) at least an average level of intelligence, (c) a definite or probable clinical axis II diagnosis, and (d) no history or current symptoms of a serious organic conditions, schizophrenia, or bipolar I disorder. (Please see Zanarini, et al., 1997 for additional methodological details.)

Measures

Axis I and axis II Disorders—Diagnostic information regarding axis I and axis II disorders was obtained via the Structured Clinical Interview for DSM-III-R Axis I Disorders

(Spitzer, Williams, Gibbon, & First, 1990), the Revised Diagnostic Interview for Borderlines (DIB-R; Zanarini, Gunderson, Frankenburg, & Chauncey, 1989) and the Diagnostic Interview for DSM-III-R Personality Disorders (Zanarini, Frankenburg, Chauncey, & Gunderson, 1987). Good-excellent inter-rater and test-retest reliability were found for all three of these measures (Zanarini & Frankenburg, 2001; Zanarini, Frankenburg, & Vujanovic, 2002).

Positive Affective States and Cognitions—The frequency of positive affective states and cognitions of borderline patients and axis II comparison participants was assessed using the Positive Affect Scale (PAS; Zanarini & DeLuca, 1994). The PAS is a self-report measure containing 50 items selected specifically by our group to assess positive affective states and cognitions thought to be characteristic of and discriminating for BPD. With the PAS, participants are asked to report the percentage of time that he or she has experienced each affective state or cognition during the past month. The PAS has been found to have a high degree of internal consistency (i.e., Cronbach's $\alpha = .98$). In addition, the one-week test-retest reliability of the PAS was found to be .84 when examined in a sample of 15 axis II outpatients. Since the PAS data are not normally distributed, between-group comparisons were conducted using the non-parametric Wilcoxon rank-sum test.

Results

Slightly greater than halfway through recruitment of participants of this larger study, we began to administer the Positive Affect Scale. All told, it was administered to 120 mostly consecutive inpatients at the hospital, resulting in the sample of the current study. Of these, 96 met both DIB-R and DSM-III-R criteria for BPD (BPD group) and 24 met DSM-III-R criteria for at least one non-borderline axis II disorder (OPD group). Demographically, borderline patients and comparison participants did not differ regarding race, sex, and age (all p 's $> .05$). Less than 20% of each group was non-white (17% of those in the BPD group and 16% of those in the OPD group). The majority of each group was female (82.3% of those in the BPD group and 70% of those in the OPD group), and, on average, participants in each group were in their late twenties ($M = 27.6$ in the BPD group and $M = 28.4$ in the OPD group). On the other hand, significant group differences were found regarding socioeconomic (SES) background as well as Global Assessment of Functioning (GAF). As measured by the five-point Hollinghead-Redlich scale (1 = *highest*, 5 = *lowest*), those in the BPD ($M = 3.09$, $SD = 1.58$) group came from significantly lower SES backgrounds than comparison subjects ($M = 2.25$, $SD = 1.26$), $t(118) = 2.42$, $p = .017$. In addition, GAF levels were lower among those in the BPD group ($M = 38.97$, $SD = 8.39$) when compared with those in the OPD group ($M = 43.46$, $SD = 7.99$), $t(118) = 2.36$, $p = .020$.

Data concerning concurrent axis I and II diagnoses can be found in Table 1. Regarding axis I diagnoses, participants in the BPD and OPD groups were similar regarding major depressive disorder, dysthymia, bipolar II disorder, generalized anxiety disorder, specific phobia, and obsessive compulsive disorder. In contrast, it was found that participants in the BPD group had higher rates of panic disorder (with or without agoraphobia) [$\chi^2(1, N = 120) = 9.1$, $p = 0.003$] and social phobia [$\chi^2(1, N = 120) = 6.7$, $p = 0.010$].

In terms of positive inner states, the mean and median overall PAS scores were much higher for those in the OPD group ($M = 57.36$, $Mdn = 59.67$, $SD = 23.84$) than for those in the BPD group ($M = 37.87$, $Mdn = 36.80$, $SD = 14.49$). By rank-sum test, this difference is highly statistically significant, $\chi^2(N = 120) = 20.79$, $p < 0.0001$. To provide a measure of effect size, we conducted a logistic regression analysis predicting diagnostic group as a function of the overall PAS score. This yielded an odds ratio of 0.56 (95% $CI = 0.42, 0.74$) indicating

that a 10-point increase in overall PAS is associated with an approximate halving of the odds of BPD.

Groups of inner states measured with the PAS were defined as affective (18 states), cognitive (18 states), or mixed (14 states) by a group of five psychiatrists and psychologists with an average of over 20 years of post-doctoral experience. Table 2 shows the means, medians, and 75th percentile scores for affective states assessed by the PAS for those in the BPD and OPD groups. Nine of these affective states were uncommon in BPD patients (i.e., those experienced 49% of the time or less by 75% of BPD patients). These states are: Hopeful, Happy, Calm, Compassion for myself, Optimistic, Confident, Proud of myself, Content, and Fond of myself. In contrast, 9 of these affective states were common to both BPD and OPD participants (i.e., states with 75th percentiles that were greater than or equal to 50% of the time). These states are: Alive, Grateful to those who've helped me, Real, Compassion for other people, Love for others, Fond of others, Safe, Loved, and Secure. At a Bonferonni-corrected alpha level of $p < .001$, results show that comparisons of scores for Happy, Calm, Fond of Myself, and Real were significantly higher, as expected, among participants in the OPD group than those in the BPD group.

Table 3 shows the means, medians, and 75th percentile scores for cognitions assessed by the PAS for those in the BPD and OPD groups. Based on the same criteria as those for affective states, 3 of these cognitive states were uncommon in BPD patients. These are: That I can accept myself, that I've been able to forgive myself, and That I've found my way. In contrast, 15 of these states were common to both BPD and OPD patients. These states are That things around me are real, Sure of who I am, In touch with my feelings, Connected to my feelings, Determined to succeed, That I understand my past, That I'm in good control, Connected to other people, Accepting of the past, That things around me are under control, That I'm making progress, That I've been able to put things in perspective, Heard, That I trust myself, and That I've forgiven those who've hurt me. At a Bonferonni-corrected alpha level of $p < .001$, results show that comparisons of scores for 10 of these states were significantly higher among participants in the OPD group than those in the BPD group. These states are: That things around me are real, That I understand my past, That I'm in good control, Accepting of the past, That I'm making progress, that I've been able to put things in perspective, That I trust myself, That I've forgiven those who've hurt me, That I can accept myself, and That I've been able to forgive myself.

Table 4 shows the means, medians, and 75th percentile scores for mixed inner states assessed by the PAS for those in the BPD and OPD groups. Again, based off on the same criteria as for affective and cognitive states, only 1 mixed state was uncommon to both BPD and OPD patients; Forceful. In contrast, 13 states were common to both BPD and OPD patients. These states are: Well liked, Competent, Respected, Assertive, Whole, Understood, Trusting of others, Focused, Validated, Accepted, Appreciated, Strong, and Complete. At a Bonferonni-corrected alpha level of $p < .001$, results show that comparisons of scores for Whole, Trusting of others, and Complete were significantly higher among participants in the OPD group than those in the BPD group.

We then performed a forward stepwise logistic regression analysis to find which specific subset of the positive affective states and cognitions would best discriminate participants in the BPD and OPD groups. Table 5 details the results of the final selected model. Results show one affective state (Fond of myself), two cognitions (That things around me are real, That I've forgiven others who've hurt me) and one mixed state (Assertive) significantly predicted the diagnostic groups. More specifically, the results show that, as measured by 10-point item increases, (a) Fond of myself reduces the odds of BPD by 31%, (b) That things around me are real reduces the odds of BPD by 52%, (c) That I've forgiven others who've

hurt me reduces the odds of BPD by 24%, and (d) Assertive increases the odds of BPD by 26%.

Discussion

The aim of the current study was to identify positive affective states and cognitions unique to borderline personality disorder. To this end, the study utilized the Positive Affect Scale developed specifically to examine positive states thought to both characterize and distinguish BPD from other axis II disorders. The measure was administered to a large sample of inpatients with a range of axis II diagnoses. Results identify positive states, both individually and as a set, unique to borderline personality disorder. Major findings and implications are discussed.

The first of these major findings is that overall levels of positive affective and cognitive states reported by borderline patients and non-borderline axis II comparison participants, as represented by their mean PAS scores, is highly discriminating in a sample of hospitalized inpatients. Furthermore, for each 10-point increase on the PAS, the odds of having a diagnosis of BPD decreases by almost half. This suggests, along with previous studies examining dysphoric states specific to BPD (Arntz, et al., 1999; Butler, et al., 2002; Zanarini, et al., 1998), that the measurement of affective and cognitive states may provide a powerful discriminator of BPD.

In addition, the current study found that several specific positive affective and cognitive states discriminate borderline patients from comparison participants suffering from other axis II diagnoses. These include positive affective states (Happy, Calm, Fond of myself, and Real), positive cognitions (That I'm in good control, That I'm making progress, That things around me are real, That I understand my past, That I've been able to put things in perspective, That I trust myself, Accepting of the past, That I can accept myself, That I've forgiven those who've hurt me, and That I've been able to forgive myself), and what can be described as mixed states (Trusting of others, Whole, Complete).

Finally, it was found that four specific positive affective states and cognitions, when co-occurring at high levels, form a powerful constellation of affective and cognitive states present in patients suffering from borderline personality disorder. These states include Fond of myself, That things around me are real, That I've forgiven others, and Assertive. Consistent with clinical experience, smaller values of Fond of Myself, That things around me are real, and That I've forgiven others, were associated with BPD, while greater values for Assertiveness were associated with BPD.

A number of limitations to this study must be taken into account in interpreting its findings. First, the current study was conducted on inpatients with BPD and other axis II disorders, so its results may not generalize to less severely ill patients with BPD. Further research is needed to ascertain the ways in which positive states are presenting in BPD patients in outpatient clinical and primary care settings. In addition, the PAS was only administered to fewer than 50% of the entire MSAD sample, as overall recruitment began before the completion of the measure. Finally, all participants were in treatment at the time of baseline. It remains possible that the positive states investigated in the current study may differ in untreated individuals.

Results from the current study provide the first data regarding positive states in borderline personality disorder. Moreover, these data point to specific positive states uniquely absent in BPD as compared to participants suffering from other axis II disorders. It is thus suggested that rather than being affectively and cognitively conceptualized by solely negative states, individuals suffering from borderline personality disorder experience an integrated pattern

of both positive and negative states. Together with findings regarding negative affective and cognitive states present in BPD, the current study speaks to the potential of a measure of such states as an effective screening instrument in inpatient settings. Finally, the current study lays the foundation for future studies investigating the longitudinal courses of the inner states of patients suffering from BPD.

Acknowledgments

Supported by NIMH grants MH47588 and MH62169.

References

- Arntz A, Dietzel R, Dreesen L. Assumptions in borderline personality disorder: specificity, stability and relationship with etiological factors. *Behaviour Research and Therapy*. 1999; 37:545–557. [PubMed: 10372468]
- Arntz A, Klokman J, Sieswerda S. An experimental test of the Schema Mode Model of borderline personality disorder. *Journal of Behavior Therapy and Experimental Psychiatry*. 2005; 36(3):226–239. [PubMed: 16004961]
- Beck, AT.; Freeman, A. *Cognitive Therapy of Personality Disorders*. Guilford Press; New York: 1995.
- Butler AC, Brown GK, Beck AT, Grisham J. Assessment of dysfunctional beliefs in borderline personality disorder. *Behaviour Research and Therapy*. 2002; 40:467–478.
- Chopra HD, Beatson JA. Psychotic symptoms in borderline personality disorder. *American Journal of Psychiatry*. 1986; 143:1605–1607. [PubMed: 3789216]
- Deutsch H. Some forms of emotional disturbance and their relationships to schizophrenia. *Psychoanalytic Quarterly*. 1942; 11:301–321.
- Giesen-Bloo J, Arntz A. World assumptions and the role of trauma in borderline personality disorder. *Journal of Behavior Therapy and Experimental Psychiatry*. 2003:197–208.
- Grinker, RR.; Werble, B.; Drye, R. *The borderline syndrome: A behavioral study of ego functions*. Basic Books; New York: 1968.
- Hoch P, Polatin P. Psychoneurotic forms of schizophrenia. *Psychiatric Quarterly*. 1949; 23:248–276. [PubMed: 18137714]
- Linehan, MM. *Cognitive-Behavioral Treatment of Borderline Personality Disorder*. The Guilford Press; New York: 1993.
- McGinn, LK.; Young, JE. Schema-focused therapy. In: Salkovskis, PM., editor. *Frontiers of cognitive therapy*. Guilford Press; New York: 1996. p. 182–207.
- Pope HG, Jonas JM, Hudson JL, Cohen BM, Tohen M. An empirical study of psychosis in borderline personality disorder. *American Journal of Psychiatry*. 1985; 142:1285–1290. [PubMed: 4061687]
- Rado, S. *Psychoanalysis of behavior: Collected papers*. Grune & Stratton; New York: 1956.
- Spitzer, RL.; Williams, JBW.; Gibbon, M.; First, MB. *Structured Clinical Interview for DSM-III-R Axis I Disorders*. American Psychiatric Press; Washington, DC: 1990.
- Young, JE.; Klosko, J.; Weishaar, ME. *Schema therapy: A practitioner's guide*. Guilford Press; New York: 2003.
- Zanarini, MC.; DeLuca, CJ. *The Positive Affect Scale*. McLean Hospital; 1994.
- Zanarini MC, Frankenburg FR. Pathways to the development of borderline personality disorder. *Journal of Personality Disorders*. 1997; 11:93–104. [PubMed: 9113824]
- Zanarini MC, Frankenburg FR. Attainment and maintenance of reliability of axis I and axis II disorders over the course of a longitudinal study. *Comprehensive Psychiatry*. 2001; 42(5):369–374. [PubMed: 11559863]
- Zanarini MC, Frankenburg FR, Chauncey DL, Gunderson JG. The diagnostic interview for personality disorders: interrater and test-retest reliability. *Comprehensive Psychiatry*. 1987; 28(6):467–480. [PubMed: 3691072]

- Zanarini MC, Frankenburg FR, DeLuca CJ, Hennen J, Khera GS, Gunderson JG. The pain of being borderline: Dysphoric states specific to borderline personality disorder. *Harvard Review of Psychiatry*. 1998; 6:201–207. [PubMed: 10370445]
- Zanarini MC, Frankenburg FR, Vujanovic AB. Inter-rater and test-retest reliability of the revised diagnostic interview for borderlines. *Journal of Personality Disorders*. 2002; 16(3):270–276. [PubMed: 12136682]
- Zanarini MC, Gunderson JG, Frankenburg FR. Cognitive features of borderline personality disorder. *American Journal of Psychiatry*. 1990; 147:57–63. [PubMed: 2293789]
- Zanarini MC, Gunderson JG, Frankenburg FR, Chauncey DL. The revised Diagnostic Interview for Borderlines: Discriminating BPD from other axis II disorders. *Journal of Personality Disorders*. 1989; 3(1):10–18.
- Zanarini MC, Williams AA, Lewis RE, Reich DB, Vera SC, Marino MF, et al. Reported pathological childhood experiences associated with the development of borderline personality disorder. *American Journal of Psychiatry*. 1997; 154:1101–1106. [PubMed: 9247396]
- Zilboorg G. Ambulatory schizophrenia. *Psychiatry*. 1941; 4:149–155.

Table 1

Current DSM-III-R Comorbid Diagnoses

DSM-III-R Category	BPD (n = 96)		OPD (n = 24)		BDP vs. OPD	
	%	n	%	n	χ^2	p
Axis I						
Major Depressive Disorder	75.00	72	66.67	16	0.7	0.409
Dysthymia	37.50	36	29.17	7	0.6	0.446
Bipolar II Disorder	5.21	5	0.00	0	1.3	0.253
Generalized Anxiety Disorder	5.21	5	0.00	0	1.3	0.253
Panic Disorder*	35.42	34	4.17	1	9.1	0.003
Specific Phobia	35.42	34	16.67	4	3.1	0.077
Obsessive Compulsive Disorder	0.00	0	5.21	5	1.3	0.253
Agoraphobia	0.00	0	0.00	0	**	
Social Phobia	40.63	39	12.50	3	6.7	0.010
Axis II						
Cluster A	18.75	18	0.00	0	5.3	0.021
Cluster B***	27.08	26	12.50	3	2.2	0.136
Cluster C	59.38	57	25.00	6	9.1	0.003
Personality Disorder NOS	0.00	0	66.67	16	73.8	<0.001

* with or without agoraphobia.

** statistics cannot be calculated when either no subjects in one group or all of the subjects in one group have the diagnosis

*** participants in the OPD group with a non-BPD axis II diagnosis.

Table 2

Positive Affective States in BPD Patients and OPD Comparison Participants*

Positive Affective States	BPD (n = 96)			OPD (n = 24)			BPD vs. OPD	
	Mean	Median	75th Percentile	Mean	Median	75th Percentile	z-score	p
<i>Common</i>								
Alive	59.6	60.0	100	79.8	95.0	100	2.260	0.0238
Grateful to those who've helped me	82.1	90.0	100	90.8	95.0	100	1.747	0.0807
Real	65.7	80.0	96.5	88.5	97.5	97.5	3.388	0.0007
Compassion for other people	73.3	80.0	95	76.2	87.5	97	0.665	0.5057
Love for others	63.4	70.0	90	63.8	72.5	90	0.362	0.7172
Fond of others	61.5	70.0	80	70.0	75.0	92.5	1.687	0.0917
Safe	37.9	30.0	65	57.9	62.5	95	2.645	0.0082
Loved	37.6	30.0	62.5	52.8	55.0	90	1.917	0.0552
Secure	30.6	25.0	50	49.1	42.5	90	2.322	0.0202
<i>Uncommon</i>								
Hopeful	27.5	20.0	45	45.1	45.0	80	2.071	0.0384
Happy	28.1	25.0	40	49.0	47.5	80	3.262	0.0011
Calm	25.4	20.0	40	49.9	50.0	82.5	3.191	0.0014
Compassion for myself	25.8	20.0	40	47.8	45.0	80	2.935	0.0033
Optimistic	25.6	20.0	37.5	48.2	47.5	80	2.856	0.0043
Confident	23.1	20.0	37.5	43.0	40.0	77.5	2.544	0.0110
Proud of myself	22.9	20.0	32.5	47.1	40.0	82.5	3.043	0.0023
Content	20.6	10.0	30	37.3	30.0	60	2.362	0.0182
Fond of myself	22.5	12.5	30	53.9	50.0	87.5	3.626	0.0003

* BPD = borderline personality disorder; OPD = other personality disorder

Table 3

Positive Cognitive States in BPD Patients and OPD Comparison Participants*

Positive Cognitions	BPD (n = 96)			OPD (n = 24)			BPD vs. OPD	
	Mean	Median	75th Percentile	Mean	Median	75th Percentile	z-score	p
<i>Common</i>								
That things around me are real	77.9	90.0	100	96.9	100.0	100	3.750	0.0002
Sure of who I am	45.9	50.0	77.5	66.5	77.5	100	2.401	0.0163
In touch with my feelings	46.1	50.0	72.5	55.9	60.0	85	1.352	0.1763
Connected to my feelings	43.4	45.0	72.5	53.4	50.0	85	1.300	0.1937
Determined to succeed	50.6	50.0	70	60.8	65.0	82.5	1.659	0.0971
That I understand my past	37.1	27.5	67.5	66.8	80.0	90	3.659	0.0003
That I'm in good control	37.7	37.5	60	61.3	67.5	90	3.371	0.0007
Connected to other people	38.5	30.0	60	53.0	55.0	85	1.800	0.0718
Accepting of the past	33.5	20.0	55	66.4	75.0	90	4.180	<0.0000
That things around me are under control	32.8	27.5	50	50.3	50.0	80	2.368	0.0179
That I'm making progress	35.1	30.0	50	55.9	50.0	77.5	3.115	0.0018
That I've been able to put things in perspective	33.5	30.0	50	60.6	62.5	80	4.040	<0.0000
Heard	30.6	25.0	50	53.1	55.0	80	3.056	0.0022
That I trust myself	31.4	25.0	50	54.6	60.0	80	3.136	0.0017
That I've forgiven those who've hurt me	32.5	20.0	50	64.8	75.0	90	3.932	0.0001
<i>Uncommon</i>								
That I can accept myself	26.0	15.0	40	59.1	72.5	90	3.845	<0.0000
That I've been able to forgive myself	24.1	10.0	40	52.6	60.0	85	3.477	0.0005
That I've found my way	20.1	10.0	30	41.0	40.0	67.5	2.755	0.0059

* BPD = borderline personality disorder; OPD = other personality disorder

Table 4

Positive Mixed States in BPD Patients and OPD Comparison Participants*

Positive Inner States	BPD (n = 96)			OPD (n = 24)			BPD vs. OPD	
	Mean	Median	75th Percentile	Mean	Median	75th Percentile	z-score	p
<i>Common</i>								
Well liked	44.6	40.0	75	59.1	75.0	80	1.943	0.0520
Competent	37.9	30.0	60	59.3	65.0	85	2.773	0.0056
Respected	36.9	30.0	60	55.0	70.0	80	2.619	0.0088
Assertive	38.8	32.5	60	47.6	45.0	82.5	0.921	0.3570
Whole	33.6	20.0	55	64.2	85.0	100	3.434	0.0006
Understood	29.7	22.5	50	49.7	50.0	80	2.700	0.0069
Trusting of others	31.4	25.0	50	54.6	60.0	80	3.136	0.0017
Focused	38.5	30.0	50	50.2	50.0	80	1.552	0.1205
Validated	29.5	20.0	50	48.8	55.0	80	2.238	0.0252
Accepted	35.1	30.0	50	52.5	50.0	85	2.323	0.0202
Appreciated	30.7	25.0	50	50.8	50.0	80	2.838	0.0045
Strong	33.7	30.0	50	52.5	70.0	87.5	2.130	0.0331
Complete	29.9	20.0	50	61.7	77.5	90	3.730	0.0002
<i>Uncommon</i>								
Forceful	22.8	10.0	40	28.8	17.5	50	0.116	0.9075

* BPD = borderline personality disorder; OPD = other personality disorder

Table 5

Stepwise Logistic Regression of States that Best Discriminate BPD and OPD *

Positive states	Odds ratio ^{**}	SE	z-score	p	95% confidence interval
Fond of myself	0.6963	0.0755	-3.34	0.001	0.5631 - 0.8611
That things around me are real	0.4841	0.1848	-1.90	0.057	0.2290 - 1.0230
That I've forgiven others	0.7604	0.074	-2.82	0.005	0.6284 - 0.9201
Assertive	1.2555	0.1451	1.97	0.049	1.0010 - 1.5748

* Model $\chi^2(4, N = 120) = 41.96, p < 0.0001$

** Odds ratios based on 10 point intervals on PAS