

Attachment and Borderline Personality Disorder: Implications for Psychotherapy

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Key Words

Attachment · Borderline personality disorder · Measurement · Psychopathology · Psychotherapy

Abstract

Background: Psychopathology researchers and theorists have begun to understand fundamental aspects of borderline personality disorder (BPD) such as unstable and intense interpersonal relationships, feelings of emptiness, bursts of rage, chronic fears of abandonment, intolerance for aloneness, and lack of a stable sense of self as stemming from impairments in the underlying attachment organization. In the present study, we will examine self-reported attachment in a study group of well-characterized patients reliably diagnosed with BPD. **Sampling and Methods:** Ninety-nine outpatients reliably diagnosed with BPD using the International Personality Disorders Examination, completed a number of attachment measures including the Relationship Questionnaire, Relationship Style Questionnaire, and Experiences in Close Relationships inventory. **Results:** Factor analysis revealed six factors that clustered into three groups corresponding to an avoidant attachment pattern, a preoccupied attachment pattern, and a fearfully preoccupied pattern. The preoccupied pattern showed

more concern and behavioral reaction to real or imagined abandonments, whereas the avoidant group had higher ratings of inappropriate anger. The fearfully preoccupied group had higher ratings on identity disturbance, although only at the trend level. **Conclusions:** The psychometric properties and response characteristics of the ECR items suggest that the scales, keying, and domains are appropriate for assessment of attachment in BPD samples. The scales generally retain their factor structure and show a similar pattern of correlations and inter-relationships. Nevertheless, consistent with a developmental psychopathology model, there are some important differences in factor structure, indicating the need to look at both typical and atypical samples when constructing models of attachment. Further research is needed to delineate the prognostic and prescriptive significance of attachment patterns for treating patients with BPD.

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Introduction

Psychopathology researchers and theorists have begun to understand fundamental aspects of borderline personality disorder (BPD) such as unstable and intense inter-

personal relationships, feelings of emptiness, bursts of rage, chronic fears of abandonment, intolerance for aloneness, and lack of a stable sense of self as stemming from impairments in the underlying attachment organization [1–7]. These investigators have noted that the impulsivity, affective lability, and self-damaging actions that are the hallmark of borderline personality occur in an interpersonal context and are often precipitated by real or imagined events in relationships. For example, mood lability in BPD patients is often triggered by the misperception of subtle events in the environment (benign separations may be perceived as rejection, bids for intimacy may be seen as intrusive or engulfing, differences of opinion may be seen as personal attacks) [7–10]. Once the mood state is obtained, it can rapidly lead to aggressive, impulsive, self-destructive, interpersonally intrusive or extreme isolative behavior [7–8, 10].

Relatedly, these investigators have begun examining the clinical applications of attachment theory both theoretically [3–5, 11–22] and empirically [2, 23–26]. These authors have begun to delineate how attachment classifications and dimensions contribute to understanding the underlying psychopathology and the quality and nature of the therapeutic alliance, psychotherapy process, patterns of transference and countertransference, and psychotherapy outcome.

In the present study, we examine self-reported attachment in a study group of well-characterized patients reliably diagnosed with BPD. Our goal will be to relate the subjective experience of attachment dynamics to different aspects of borderline pathology. We will further examine the prognostic and prescriptive implications of an attachment-theoretical perspective for psychotherapy with patients diagnosed with BPD.

Attachment Theory

From its inception, Bowlby [27] conceptualized attachment theory in both normal and psychopathological development. Bowlby [27] believed that attachment difficulties increase vulnerability to psychopathology, and can help identify the specific types of difficulties that arise. Bowlby [28] contended that internal working models of attachment help explain ‘the many forms of emotional distress and personality disturbances, including anxiety, anger, depression, and emotional detachment, to which unwilling separations and loss give rise’. Bowlby [28] held that childhood attachment underlies the ‘later capacity to make affectional bonds as well as a whole

range of adult dysfunctions’ including ‘marital problems and trouble with children as well as ... neurotic symptoms and personality disorders’. Thus, Bowlby postulated that early attachment experiences have long-lasting effects that tend to persist across the lifespan, and are among the major determinates of personality organization.

Based on Bowlby’s attachment theory, the seminal study of Ainsworth et al. [29] identified three major patterns of attachment in infancy – secure, avoidant, and anxious-ambivalent – and traced these styles to caregivers’ parenting behavior. Subsequently, longitudinal studies have investigated the influence of infant attachment styles on subsequent functioning and adaptation, found remarkable stability of attachment classification [30–32], although this stability is partially mediated by later life experiences [30, 33].

Measurement of Attachment

From the seminal work of Bowlby, attachment theory and research has evolved into two traditions, each with its own methodology for assessing attachment patterns (e.g. self-report and interview). Main and her colleagues [34, 35] developed the Adult Attachment Interview (AAI), a 1-hour attachment-history interview. The interview [34] inquires into early attachment relationships as well as the interviewee’s sense of how these experiences affected adult personality by probing for specific memories that both corroborate and contradict the sense of attachment history the interviewee presented. Noting the discourse features in the interviews, Main and colleagues identified three major patterns of adult attachment: secure/autonomous (F), dismissing (D), and enmeshed/preoccupied (E); and more recently, two additional categories have been identified, unresolved/disorganized (U/d) and cannot classify (CC). The first three categories parallel the attachment classifications originally identified in childhood [29], and the disorganized classification parallels a pattern Main and Weston [36] later described in infants. These attachment patterns in adults reliably predicted the Strange Situation behavior of their children.

Security on the AAI is characterized by a well-organized, undefended discourse style in which emotions are freely expressed, and by a high degree of coherence exhibited in the discussion of attachment relationships, regardless of how positively or negatively these experiences are portrayed. These individuals maintain a balanced and realistic-seeming view of early relationships, value attachment relationships, and view attachment-related ex-

periences as influential to their development. In contrast, dismissing individuals devalue the importance of attachment relationships or portray them in an idealized fashion with few corroborating concrete examples. They have difficulty recalling specific events, and usually describe an early history of rejection. These individuals are judged to have low 'coherence of mind' because of the vagueness and the sparseness of their descriptions as well as the inconsistency between the vaguely positive generalizations and 'leaked' evidence to the contrary. Preoccupied individuals have little difficulty talking about attachment and expressing attachment-related feelings. However, these individuals tend to display confusion about past experiences, and are unable to gain insight into early events. They describe early relationships with parents as over-involved or as guilt inducing. Descriptions of their current relationship with parents are often characterized by pervasive anger, passivity, and attempts to please parents, even when they describe the relationship as positive. Perhaps most importantly, preoccupied individuals have a tendency towards incoherence in their descriptions. Specifically, their interviews are often excessively long, and are characterized by the use of long, grammatically entangled sentences, jargon and nonsense words, reversion to childlike speech, and confusion regarding past and present relationships. The U/d classification is assigned when an individual displays lapses in the monitoring of reasoning or discourse when discussing experiences of loss and abuse. These lapses include highly implausible statements regarding the causes and consequences of traumatic attachment-related events, loss of memory for attachment-related traumas, and confusion and silence around discussion of trauma or loss. The CC classification is assigned when an individual displays a combination of contradictory or incompatible attachment patterns, or when no single state of mind with respect to attachment is predominant. This occurs when the subject shifts attachment patterns in mid-interview, when the subject demonstrates different attachment patterns with different attachment figures, or when the subject shows a mixture of different attachment patterns within the same transcript or passage.

In contrast to Main's focus on relationships with parents, Hazan and Shaver and colleagues [37, 38], from a social psychological perspective, applied the childhood attachment paradigm to study attachment in adulthood by conceptualizing romantic love as an attachment process. This work is important because it translates the childhood paradigm into terms directly relevant for adult relationships. Hazan and Shaver [37-39] reasoned that

Ainsworth's three attachment types might exist in adolescence and adulthood. They translated Ainsworth's descriptions of the three infant attachment types into a single-item vignette-based measure appropriate for adult romantic attachment. Following the Ainsworth et al. [29] classification scheme, they asked subjects to characterize themselves as secure, avoidant, or anxious-ambivalent in romantic relationships. In subsequent research, Bartholomew [40] and Bartholomew and Horowitz [41] developed a 4-category interview and self-report classification of adult attachment that included secure and preoccupied (anxious-ambivalent/enmeshed) categories, but which divided the avoidant category into both dismissing- and fearful-avoidant attachment classifications.

Although categorical comparisons between the AAI and self-report measures have typically failed to correspond with each other [42-45, see 46 and 47 for reviews] studies that have related the dimensional coding scales from the AAI to the self-report measures, have found that they are significantly related, even if the two categorical typologies were not significantly related [45].

Attachment and BPD

Distribution of Attachment Patterns

To date five studies have examined attachment patterns in study groups of borderline patients using the AAI [2, 48-51]. Patrick et al. [49] compared 12 dysthymic patients with 12 BPD patients on the AAI, the Parental Bonding Instrument [52], and the Beck Depression Inventory [53]. They found that the borderline group reported lower maternal care and higher maternal overprotection on the PBI and their AAIs were more likely to be characterized as confused, fearful, and overwhelmed in relation to past experiences with attachment figures. There were no differences between the two groups in terms of depression as assessed by the BDI. An examination of the distribution of AAI attachment classification between the two groups found a significantly higher proportion of preoccupied (E) classification among the borderline patients. In fact, all 12 borderline patients were classified as preoccupied. Even more striking, however, they found that 10 of the 12 (88%) borderline patients were classified as fearfully preoccupied (E3). In contrast, only 4 of the dysthymic patients were classified as preoccupied and none were E3. Another important aspect of their study concerned the findings regarding unresolved trauma. The patients with borderline personality disorder, compared with depressed patients, were not more

likely to have had a history of trauma history, but were more likely to be unresolved for trauma events.

In a clinical sample of 40 women with a history of childhood sexual abuse, Stalker and Davies [51] explored the association among attachment organization, current psychosocial functioning, and *DSM* personality disorders. They found that of the 8 women diagnosed with BPD, 5 (62%) were preoccupied and 3 were dismissive (38%). Seven of the eight women with BPD were also classified as unresolved (88%). In a study of 60 hospitalized adolescents, Rosenstein and Horowitz [50] found that 9 of the 14 patients diagnosed with BPD (64%) had a preoccupied attachment style, 4 (28%) had a dismissing attachment style and only 1 (8%) had a secure attachment style. Fonagy et al. [2] at the Anna Freud Centre of the University of London in the Cassell Hospital Psychotherapy Project studied the relation between patterns of attachment and psychiatric status in 82 nonpsychotic inpatients and 85 case-matched controls using the AAI. Seventy-five percent of the borderline patients were classified as preoccupied with 47% classified as E3. Levy and colleagues [48, 54], in their study of psychotherapy change, have recently reported data on 25 BPD patients. Forty-four percent of the patients were classified as preoccupied, 32% as dismissing, 8% as secure, and 4% as cannot classify. In addition, 44% of the patients were rated as unresolved with respect to past loss or trauma.

A number of studies have examined the relationship between self-reported attachment patterns and BPD [55–63]. These studies have generally found that borderline personality traits are significantly correlated with fearful avoidant and preoccupied attachment.

Attachment and Psychotherapy Change

Fonagy et al. [2] at the Anna Freud Centre of the University of London in the Cassell Hospital Psychotherapy Project studied the relation between patterns of attachment and psychiatric status in 82 nonpsychotic inpatients and 85 case-matched controls using the AAI. In a 1993 presentation in Toronto [64] they reported their partial findings from 35 of the inpatients. All 35 inpatients were classified insecure during their initial interview. However, they found that 14 (40%) of the 35 inpatients were assigned a secure classification upon discharge. This increase in the proportion of secure classification was highly significant ($p < 0.001$). On the individual scale ratings, bland or idealized pictures of parents and a pattern of pervasive memory blockages were more characteristic of the AAIs at intake than at discharge, appearing to have been reduced by treatment. In another study comparing

the effectiveness of intensive and nonintensive psychoanalytic treatment for severely personality disordered young adults, the AAI was useful in identifying those who dropped out of treatment early. Although the sample size is small, all the patients who prematurely dropped out of treatment were from the preoccupied/enmeshed group, and in particular the E2 (vague inchoate negativity) subcategory. In a recent article using all 82 inpatients published in the *Journal of Consulting and Clinical Psychology*, Fonagy et al. [2] found that individuals rated as dismissing on the AAI are more likely to show clinically significant improvements (93%) on the Global Assessment of Functioning scale. In contrast, 43% of the preoccupied and 33% of secure subjects showed significant clinical improvement.

Levy and colleagues [48, 54], in their study of psychotherapy change found that the majority of patients showed a change in their state of mind with respect to attachment after 1 year of treatment, with some patients showing a shift from unresolved and insecure states of mind to secure states of mind, and others from unresolved and insecure states of mind to CC or mixed states of mind with respect to attachment. The findings suggested different trajectories of change.

The Present Study

Despite the findings just reviewed, much is yet to be understood with respect to the relationship between attachment and BPD. Questions remain about whether the findings from attachment research in nonclinical samples are relevant to psychiatric samples, particularly at the level of measurement and validity. For example, with respect to the AAI, does the concordance between caregiver's attachment on the AAI and infant attachment in Mary Ainsworth's Strange Situation assessment hold true in clinical samples? How should we understand the shifts (or reorganization) from insecure to secure status on the AAI in patients with chronic disorders characterized by high levels of insecurity and affect dysregulation? Do these shifts in attachment organization translate into behavioral change in relationships with parents, children, spouses, and therapists? With regard to the self-report measures, are the factors derived from nonclinical samples relevant to clinical samples? Although these measures have been widely investigated and accepted in nonclinical samples, previous studies have not examined underlying factor structure in relevant clinical study groups. In the present study, we have been examining adult at-

tachment patterns in a group of psychiatric patients reliably diagnosed with BPD. The sample is well characterized in terms of signs and symptoms as well as health care service utilization, social services, and borderline symptomatology. In addition, our study group is assessed using both self-report and interview methods for assessing attachment. In the current paper, we will report the examination of the psychometrics of self-report assessment of adult attachment.

Methods

Participants

The study sample included 91 outpatients reliably diagnosed with BPD using the International Personality Disorder Examination (IPDE). Participants completed a number of other measures including the Relationship Questionnaire, the Relationship Style Questionnaire, and the Experiences in Close Relationships Scale. All patients were participating in a randomized clinical trial for BPD Patients (P.I.: Dr. John F. Clarkin, BPDRF). The patients are recruited primarily from the New York Presbyterian Hospital/Weill Medical College of Cornell University system. They were reliably diagnosed with BPD by masters and doctoral level assessors using the IPDE for DSM-IV [65]. In addition, in order to be eligible for the randomized clinical trial patients must not meet DSM-IV criteria for schizophrenia, bipolar disorder, delusional disorder, organic pathology, and/or mental retardation and be between 18 and 45 years of age. At the time the subjects were invited to participate in the study, written informed consent was obtained after all study procedures had been explained. Subjects ages ranged from 18 to 45 (mean = 35.23; SD = 9.77; median = 35.0; mode = 42). Sixty-three (69.2%) subjects were Caucasian, 12 (13.2%) subjects were African-American, 4 (4.4%) were Latino, and 1 (1.1%) was Asian. Seven (7.7%) subjects marked other and 4 (4.4%) did not indicate their ethnicity. Subjects were predominantly Christian (86.9%). Forty-five (49.5%) subjects were single, 11 were married (8 legally and 3 common law), 10 (11.0%) subjects were each cohabitating, separated, and divorced. One (1.1%) subject was widowed and 4 (4.4%) subjects did not indicate their relationship status.

Measures

Diagnostic Measures

IPDE [65]. The IPDE is a semi-structured diagnostic interview for diagnosing personality disorders. It consists of 99 items arranged in six categories (e.g. Self or Work), along with a detailed scoring manual. Each item assesses part or all of a DSM-IV personality-disorder criterion and is rated on a 3-point scale: 0 = absent or normal, 1 = exaggerated or accentuated, 2 = meets criteria or pathological. Items consist of one or several primary questions and follow-up questions. All positive responses are followed by requests for examples. After the provided questions are exhausted, the clinical interviewer is free to ask additional questions until he or she is able to score the item. The IPDE generates probable (subthreshold number of DSM-IV criteria met) and definite diagnoses for each of the DSM-IV personality diagnoses. It also generates dimensional scores for each diagnosis by adding the ratings on all the criteria composing a diagnosis.

Attachment Measures

Relationship Questionnaire [42]. This is a brief 1-page attachment questionnaire asking subjects about their attachment style. Subjects are asked to choose one of four vignettes that best characterizes them in romantic relationships. Next, subjects are asked to rate the four vignettes using a 7-point Likert-type scale (1 = strongly disagree and 7 = strongly agree).

Relationship Style Questionnaire [66]. The relationship style questionnaire contains 30 short statements drawn from Hazan and Shaver's [37] attachment measure, Bartholomew and Horowitz's [41] Relationship Questionnaire, and Collins and Read's [67] Adult Attachment Scale. Participants rate each question on a 5-point Likert scale as to the extent to which each statement best describes their characteristic style in close relationships. Five statements contribute to the secure and dismissing attachment patterns and four statements contribute to the fearful and preoccupied attachment patterns. Scores for each attachment pattern are derived by taking the mean of the four or five items representing each attachment prototype. Two underlying dimensions can be derived either by conducting a factor analysis of the items or by using the scores from the four prototype items to create linear combinations representing the self and other-model attachment dimensions.

Experiences in Close Relationships (ECR) Scale [59]. The ECR is a 36-item self-report questionnaire assessing attachment style by tapping two basic dimensions of attachment organization: anxiety and avoidance [59]. Brennan et al. [59] have shown that a two-dimensional model of anxiety and avoidance underlies most measures of adult attachment styles. Participants rated the extent to which each item was descriptive of their feelings in close relationships on a 7-point scale ranging from 'not at all' (1) to 'very much' (7). Eighteen items assessed attachment anxiety and 18 assessed attachment avoidance. The reliability and validity of the scale have been demonstrated. In the current sample, Cronbach alphas were high for the 18 anxiety items (0.89) and the 18 avoidance items (0.91). As intended by the scale's creators, no significant association was found between the two scores, $r = 0.17$.

Results

Distribution of Self-Reported Attachment Styles

Self-Categorized. We wanted to assess whether outpatients with BPD could meaningfully classify themselves in terms of attachment relationships on the Relationship Questionnaire, which consist of four brief vignettes, just over half (53.3%) of the subjects classified themselves as fearful avoidant. Thirty-five percent of the subjects classified themselves as preoccupied (35.6%), 3% classified themselves as dismissing avoidant, and almost 8% classified themselves as secure. In terms of security of attachment, these figures are similar to the proportions reported in other studies on borderline patients that used the AAI.

Coefficient-Based. On the ECR questionnaire, classifying subjects based on their responses to the 36 items, 47.2 and 46.1% of the participants were classified as fearful avoidant and preoccupied, respectively. Only 4.5 and

2% of the participants were classified as dismissing and secure, respectively.

Identifying Attachment Dimensions

Since the ECR factors were derived on a nonclinical sample, we conducted a principal component factor analysis with varimax rotation on our sample. Factors were extracted on the basis of eigenvalue greater than 1, screen testing [68], factor interpretability, and internal consistency. Seven main factors with eigenvalues greater than 1 emerged accounting for 70.54% of the variance in scores. However, screen testing, interpretability and internal consistency all suggested a 6-factor solution. Thus, a 6-factor solution was retained. The first factor included 12 items representing comfort sharing thoughts and feelings, the second factor included 8 items representing wanting more closeness than others provide, the third factor consisted of 6 items representing anger at others absence, factor 4 consisted of 4 items representing withdrawing in response to feelings of closeness, factor 5 consisted of 4 items representing worries about abandonment and being alone, factor 6 consisted of 2 items representing difficulty depending on others. Subscales measuring the factor constructs were calculated using the average item scores as opposed to weighted item scores [69]. Higher scores reflect greater preoccupation, desire for closeness, withdrawal behavior, and angry-control. Internal consistency of the factors was assessed from the subscale scores using Cronbach Alpha's. Alpha's for the six factors were as follows: Factor 1 = 0.90; Factor 2 = 0.80; Factor 3 = 0.78; Factor 4 = 0.81; Factor 5 = 0.74; and Factor 6 = 0.68. These Alpha's are adequate, indicating that the factor subscales represent independent and cohesive constructs. Item-factor correlations are also reported in table 1.

As for the relationship between factors, Factor 1 (Comfort with Sharing Thoughts and Feelings) was significantly negatively correlated with Factor 4 (Withdrawing in Response to Dependency), $r = -.61$, $p < 0.001$ and positively correlated with Factor 6 (Comfort with Depending on Others), $r = 0.53$, $p < 0.001$; Factor 2 (Wants more Closeness than Others Give) was significantly positively correlated with Factor 3 (Anger and Resentment regarding Others Absence), $r = 0.64$, $p < 0.001$ and Factor 5 (Worries about Abandonment), $r = 0.69$, $p < 0.001$; Factor 3 was significantly correlated with Factor 5, $r = 0.58$, $p < 0.001$. Factor 4 was significantly correlated with Factor 6, $r = -0.39$, $p < 0.001$. The pattern of these correlations is compatible with Bartholomew's placement of the four styles in a two-dimensional conceptual space.

Creation of Attachment Groups

Cluster analysis, with Ward's minimum-variance with Euclidean distance method was used to classify subjects into categorical attachment groups based on the two-factor scales [70, 71]. Examining the within-group variance suggested a three-cluster solution. Amalgamation coefficients also suggested a three-cluster solution. A second nonhierarchical (K-Means, with an optimization method of assigning cases to clusters) cluster analysis was performed because nonhierarchical analyses typically provide more robust solutions. Nonhierarchical analyses allow cases to be switched from their initial clusters to a better-fitting cluster, a process known as optimizing, or 'updating,' the cluster centers [72]. In hierarchical analyses, once a case has been assigned to a cluster center, it cannot be reassigned in a later iteration when alternative, better-fitting clusters may emerge. The hierarchical cluster analysis was conducted first to provide initial cluster centers without which the nonhierarchical method would have had to use random starting points. Next, using a MANOVA we compared the three-cluster groups on the scores on the six-factor scales. Univariate F tests with Tukey B contrasts were significant for all factor scales.

Subjects in Cluster 1 scored significantly lower than Cluster 2 on the Comfort with Sharing Thoughts and Feelings and the Comfort with Dependency Factors (but not significantly different from Cluster 3). Cluster 1 subjects also scored significantly lower than Cluster 2 and Cluster 3 subjects on Wants More Closeness than Others Give, Anger at Others Absence, and Worry about Abandonment Factors. Finally Cluster 1 subjects scored significantly higher on the Withdraw in Response to Dependency Factor than Cluster 2, but significantly lower on that factor than Cluster 3. Based on these patterns, Cluster 1 appears to represent an avoidant attachment pattern. Cluster 2 subjects tended to score high on all the factors except for the Withdraw in Response to Dependency Factor. Taken together, this pattern appears to represent a preoccupied attachment type. Cluster 3 subjects scored high all the factors except the Comfort with Dependency Factor and in addition scored significantly higher than Cluster 1 on the Withdraw in Response to Dependent Feelings Factor suggesting that this cluster represents both anxious preoccupation with attachment and fearful avoidance of attachment relationships.

Discriminating among Attachment-Style Categories Using Factor Scales

Discriminant Function Analysis. To explore further the underlying dimensions of self-reported adult attach-

Table 1. Item-factor correlations for factor analysis of ECR Items

Item No.	Item	Factor					
		1	2	3	4	5	6
1	I prefer not to show a partner how I feel deep down	-0.73					
3	I am very comfortable being close to romantic partners	0.75					
9	Not comfortable opening up to romantic partners	-0.71					
15	Comfortable sharing private thoughts and feelings of partner	0.80					
17	Avoid getting too close	-0.58					
19	Relatively easy to get close	0.78					
23	Prefer not to be too close to romantic partners	-0.60					
25	Tell partner everything	0.80					
27	I usually discuss my problems and concerns with my partner	0.80					
31	I don't mind asking romantic partners for comfort, advice, or help	0.72					
33	It helps to turn to my romantic partner in times of need	0.66					
35	I turn to my partner for many things, including comfort and reassurance	0.64					
4	I worry a lot about my relationships		0.56				
6	I worry that romantic partners won't care about me as much as I care about them		0.66				
10	I often wish that my partner's feelings for me were as strong as my feelings for him/her		0.77				
12	I often want to merge completely with romantic partners, and this sometimes scares them away		0.73				
16	My desire to be very close sometimes scares people		0.77				
18	I need a lot of reassurance that I am loved by my partner		0.61				
20	Sometimes I feel that I force my partners to show more feeling, more commitment		0.69				
26	I find that my partner(s) don't want to get as close as I would like		0.75				
24	If I can't get my partner to show interest in me, I get upset or angry			0.64			
28	When I'm not involved in a relationship, I feel somewhat anxious and insecure			0.57			
30	I get frustrated when my partner is not around as much as I would like			0.78			
32	I get frustrated if romantic partners are not available			0.74			
34	I feel really bad when romantic partners disapprove			0.52			
36	I resent it when my partner spends time away from me			0.83			
5	when partner gets close to me I pull away				0.83		
7	I get uncomfortable when a romantic partner wants to be very close				0.72		
11	I want to get close, but I keep pulling back				0.78		
13	I am nervous when partners get too close to me				0.76		
2	I worry about being abandoned					0.68	
8	I worry a fair amount about losing my partner					0.59	
14	I worry about being alone					0.74	
22	I do not often worry about being abandoned					-0.71	
29	I feel comfortable depending						-0.84
21	I find it difficult to allow myself to depend						0.64

ment style in our sample, a discriminant-function analysis was conducted using the 6 factors from the ECR to predict subjects' cluster-based attachment classification. We found two discriminant functions. Function 1 distinguished avoidant individuals from preoccupied individuals and Function 2 distinguished preoccupied individuals from fearfully preoccupied individuals. Functions 1 and 2 accounted for 55.4 and 44.6% of the variance, respectively.

BPD Symptomatology as a Function of Cluster-Based Attachment Patterns

Using ANOVA procedures mean BPD criteria ratings (as assessed by the IPDE) were analyzed as a function of the cluster-based attachment patterns. Of the nine criteria, only two were significantly different – abandonment and inappropriate anger – although there was also a trend for identity disturbance. The preoccupied pattern had significantly higher ratings ($p < 0.05$) on the behavioral reaction to real or imagined abandonment criterion (mean = 1.42) than the avoidant group (mean = 0.71). The fearfully preoccupied group (mean = 1.17) was not significantly different from either group. The avoidant group had significantly higher ratings ($p < 0.01$) of inappropriate anger (mean = 1.88) than the fearfully preoccupied group (mean = 1.25). The preoccupied group (mean = 1.33) was not significantly different from either group. The fearfully preoccupied group had higher ratings on identity disturbance, although only at the trend level. These findings correspond with preliminary *t* test analyses comparing borderline as a function of preoccupied versus dismissing status on the AAI, in which we have found that preoccupied borderline patients scored higher on unstable interpersonal relationships and suicidality, whereas dismissing borderlines scored higher on inappropriate anger. In another set of analyses comparing borderline patients as a function of U/d versus nonU/d status, we have found that unresolved BPD patients score higher on inappropriate anger and suicidality.

Discussion

We examined the psychometric properties of self-report assessment of adult attachment in a study group of patients diagnosed with BPD. We found that the psychometric properties and response characteristics of the ECR items suggest that the scales, keying, and domains are appropriate for assessment of attachment in BPD samples.

The scales generally retain their factor structure and show a similar pattern of correlations and inter-relationships. Nevertheless, consistent with a developmental psychopathology model, there are some important differences in factor structure, indicating the need to look at both typical and atypical samples when constructing models of attachment.

Distribution of Attachment Patterns

Over half of the subjects choose the fearful vignette as characteristic of their attachment style in close relationships and on both the relationship style questionnaire and ECR, almost 90% of the participants are classified as fearful or preoccupied. On the cluster-based approach, 26 (29.2%) of the participants were classified as avoidant, 23 (25.8%) of the participants were classified as preoccupied, and 40 (44.9%) of the participants were classified as fearfully preoccupied.

The disparity between the self-classification data and the cluster-based solution suggests that the standard self-report measurement techniques may mask important aspects of these patients' phenomenological experience. Although in nonclinical samples it may be useful to conceptualize the fearful avoidant pattern as an avoidant attachment pattern, in borderline samples, it may be more useful to conceptualize these individuals as fearfully preoccupied. There is a disparity in how the fearful group has been described in the attachment literature. Some researchers have indicated that the fearful group is the healthiest of the insecure groups [5, 41, 73]. Others have portrayed fearful avoidants as opposite to secures on many dimensions, leading them to be viewed as the least secure of the three insecure groups and as the most distressed and least healthy [60, 74]. Some investigators have tied the fearful avoidant style, with their mixture of avoidant and anxious styles to Crittenden's [75] A/C infant attachment style [76], whereas others have related the fearful avoidant style to Main's unresolved style in adulthood [43, 44, 77]. Alternately, Crittenden has expanded the Main's classification system to include additional attachment patterns, one being an anxious-depressed type. Finally, the Main's classification system includes a fearfully preoccupied subclassification within the enmeshed/preoccupied pattern. The fearfully preoccupied pattern on the AAI is characterized by pervasive preoccupation with early traumatic events. Future research should examine the relations between early childhood abuse and the preoccupied/avoidant or fearful preoccupied attachment in psychiatric patients. (Some research has found high levels of abuse in the fearful group

and other research has found a relationship between fearful avoidant attachment and BPD.)

Future research should examine the relationship of this fearfully preoccupied or preoccupied/avoidant cluster with the U/d and CC categories on the AAI. The AAI in clinical samples finds high rates of CC. The fearful choice may correspond to the CC pattern because it shows two types of attachment – avoidant and anxious, demonstrated by a chaotic mix of phenomenological preoccupation and behavioral avoidance. In our own study using the AAI, we have seen derogations (a sign of a dismissing state of mind) occur in conjunction with an angry preoccupation passage (a sign of enmeshed/preoccupation).

Our distinction between avoidant and preoccupied clusters is consistent with recent theorizing regarding similar constructs by a number of clinical investigators [78–80]. Using cluster analysis, Zittel and Westen [80] distinguished between two kinds of emotionally dysregulated BPD patients: (a) Depressive-Dysregulated and (b) Rageful-Dysregulated. The depressed-dysregulated patients had more severe trauma histories. In a severely disturbed inpatient sample, Shahar et al. [79] identified 27 mixed-type anaclitic/introjective individuals, and compared them to clearly defined 29 anaclitic and 34 introjective inpatients. They hypothesized that mixed-type inpatients would demonstrate poorer clinical functioning, greater vulnerability, and less treatment responsiveness. Results supported the first two hypotheses. At admission, mixed-type inpatients were more symptomatic, more cognitively impaired, and demonstrated more thought disorder, less accurate object representations, and more frequent utilization of maladaptive defense mechanisms than more clearly identified anaclitic and introjective inpatients. However, the mixed-type patients improved significantly more in the course of treatment, primarily in terms of clinical symptoms, cognitive functioning, and utilization of defense mechanisms. Lyons-Ruth [78, 81] identified two very different behavioral profiles within her target population of U/d mothers: (a) a hostile-avoidant subtype in which the parent is identified with a malevolent punitive caregiver from childhood, and her hostile distant interactions seem to be an attempt to deny her vulnerability by suppressing emotions and continually controlling others. These mothers discipline their children by coercion, suppression of the child's anger, and prematurely encouraging the child's autonomy; and (b) a helpless/fearful subtype in which the mother adopts a life-long caregiving style of attending to the needs of others, often at the expense of her own needs, resulting in a repression of her own affect life. These mothers tend to be

fearful and easily overwhelmed by the demands of others. They therefore feel powerless to control their children, especially when the child's affects are aroused.

Implications for Psychotherapy

Our findings have implications for understanding important aspects of psychotherapy, particularly for the therapeutic relationship, transference-countertransference dynamics, and psychotherapy dropout. Patients with different attachment patterns may be differentially at risk for dropout from psychotherapy, may differentially dropout of specific treatments, or may be at risk to dropout for different reasons. For example, individuals showing an avoidant attachment pattern may be at risk for dropping out of treatment because they are not fully committed, attached, or engaged with the therapist or in the treatment [24, 82]. Additionally, these individuals may be at risk to leave treatment because they find that psychotherapy emotionally unravels them. Interestingly, the avoidant cluster patients report that they are clamping down on anger, yet, objectively they score higher on inappropriate anger as assessed by an interviewer using the IPDE. In contrast, preoccupied states of mind with respect to attachment may leave patients at risk to dropout after perceived abandonment such as emergency cancellations, scheduled vacations, and or even while waiting for phone calls to be returned. The fearfully preoccupied may be prone to dropout in response to feeling connected, attached, or dependent on the therapist and treatment. In fact, supportive techniques may be perceived as intensifying their dependency on the therapist and result in retreat. In working with both the preoccupied and fearfully preoccupied patterns, Kernberg's [83] confrontational and interpretive method in the transference may be necessary to correct the present time distortions and preserve the therapeutic alliance. Although, these dynamics are familiar to those who treat patients with BPD, our hypotheses are speculative regarding the relationship of these dynamics to specific attachment patterns. Further research is needed to delineate the prognostic and prescriptive significance of attachment patterns for treating patients with BPD [84, 85].

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