Rorschach Assessment of Childhood Sexual Abuse Severity, Borderline Pathology, and Their Interaction: An Examination of Criterion Validity
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Rorschach Assessment of Childhood Sexual Abuse Severity, Borderline Pathology, and Their Interaction: An Examination of Criterion Validity

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This study is one of the first to examine the relationship between independent clinical ratings of Childhood Sexual Abuse (CSA) severity and Borderline Personality Disorder (BP) with Rorschach Inkblob Method variables that assess reality testing, affect regulation, relational functioning, and traumatic content. Participants in this study were 60 outpatients seeking treatment at a university-based community clinic. All Rorschach protocols were scored using the Exner Comprehensive System, and interrater reliability for all variables was in the excellent (ICC ≥ .75) range. Results demonstrated some limited reality testing impairments in relation to CSA severity. CSA severity was found to be most strongly related to affect regulation variables on the Rorschach. Degree of BP was most strongly related to variables examining relational functioning and object representations on the Rorschach. Traumatic content and oral dependency variables on the Rorschach were not significantly related to either CSA severity or BP. In addition, none of the Rorschach variables examined adequately assessed the interaction of these two criterion variables (CSA severity and BP). Clinical implications are explored and discussed.

Keywords: childhood sexual abuse, borderline personality, Rorschach, affect, reality testing, relational functioning

Borderline Personality Disorder (BPD) is the most widely researched Axis II condition and has generally come to be characterized as a “pervasive pattern of impulsivity and instability in interpersonal relationships and self-image” (First & Tasman, 2004, p. 819). The manifest symptoms primarily include severe instability of affect, interpersonal relationships, and behavior (Berg, 1990; Clarkin, Levy, Lenzenweger, & Kernberg, 2004; McNamara, 2005). Approximately 1 to 5.9% of the general population meets the criteria for BPD (Bradley et al., 2005; Clarckin et al., 2004; First & Tasman, 2004; Grant et al., 2008; Levy et al., 2006; Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004; Torgersen, Kringle, & Cramer, 2001). Up to 10% of psychiatric outpatients and 20% of inpatients also suffer from this disorder, and 75% of those afflicted are female (Bradley et al., 2005; Clarckin et al., 2004; Kernberg, 2009; Levy et al., 2006; Lieb et al., 2004).

Several authors have found that individuals with BPD suffer from affective disturbance (Blais & Bistis, 2004; Bradley, Jenei, & Westen, 2005; Clarckin et al., 2004; Lieb et al., 2004; Nica & Links, 2009; Russell, Moskowitz, Zuroff, Sookman, & Paris, 2007; Zanarini et al., 2007; Zanarini & Frankenbug, 2007). Specifically, these individuals chronically experience elevated levels of negative affect which may be triggered by particular situations (Gunderson, 2007; Sadikaj et al., 2011; Stiglmayr et al., 2005). Likewise, these affects can change with great “rapidity and fluidity” within the course of several hours (Lieb et al., 2004). Zanarini and Frankenburg (2007) suggest that the core features of BPD are the intense inner pain experienced by individuals with this disorder, as well as the ineffective coping and defense strategies they use to manage and express this pain. Holdwick and colleagues (1998) found that the most reported Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM–IV) criteria that individuals with BPD endorsed was affective instability, followed by unstable interpersonal relationships and identity disturbance, respectively. Likewise, unstable relationships and interpersonal interactions influence affective instability (Russell et al., 2007; Sadikaj, Russell, Moskowitz, & Paris, 2010; Stepp et al., 2011).

Cognitive disturbances exhibited by an individual with BPD may manifest because of difficulties maintaining a stable sense of self and realistic perceptions of others in unstructured or stressful situations (Mihura, 2006). These transient cognitive disturbances can include dissociation and paranoia, and occasionally some types of quasi-psychotic experiences (Mihura, 2006). In fact, trauma-based dissociative processes may underlie most of the symptoms described in the diagnostic criteria for BPD, including the apparently psychotic symptoms (Blizard, 2008). A more pervasive and essential form of impairment of reality-testing seen in BPD is based on polarized, severely distorted perceptions of self and others. This dichotomous thinking (i.e., “all or nothing”), also known as splitting, tends to present within BPD patients, causing them to characterize experiences with extreme alternating polarity (i.e., to perceive others as all good or all bad, especially when affectively aroused; Coifman, Berenson, Rafaeli, & Downey, 2012).
Studies have consistently shown that early maladaptive interpersonal experiences (e.g., childhood sexual abuse, neglect, inconsistent home environment, trauma) are significantly related to the histories of individuals with BPD (Herman, Perry, & van der Kolk, 1989; Zanarini & Frankenburg, 2007). Likewise, physical, sexual, or emotional abuse, neglect, as well as disturbed parental bonding and attachment are important etiological factors (Ball & Links, 2009; Beauchaine, Klein, Crowell, Derbidge, & Gatzke-Kopp, 2009; Bornovolova, Gratz, Delany-Brumsey, Paulson, & Lejuez, 2006; Carlson, Egeland, & Sroufe, 2009; Mihura, 2006; Widom, Czaja, & Paris, 2009). In fact, 40% to 71% of inpatients with BPD report childhood sexual abuse (Lieb et al., 2004; Yen et al., 2002).

In clinical samples, the rate can be as high as 76% (Briere & Zaidi, 1989). Notably, there also appears to be an intensity-response relationship between childhood abuse and BPD: The severity of the BPD symptoms increases with the severity of the abuse (Sansone, Songer, & Miller, 2005; Silk, Lee, Hill, & Lohr, 1995; Zanarini et al., 2002).

The Rorschach Inkblot Method (RIM) may aid in the assessment of trauma, exposure, and symptoms, particularly in the BPD population where the rates of trauma are so high. From prior research conducted using the RIM, three core features of BPD have emerged: Feature I, which reflects the BPD patient’s difficulties with self-identity and interpersonal relations; Feature II, which identifies deficits in affect modulation and cognitive slippage; and Feature III, which reveals the impulsive self-damaging behaviors also associated with the BPD’s unstable interpersonal relationships (Blais et al., 1999). Recent literature has also demonstrated that specific Rorschach variables that assess thought quality and reality testing will likely show more impairment in BPD samples than in normal subjects, and either equivalent or less impairment than psychotic protocols (Brand et al., 2009; Mihura, 2006). A third area of Borderline Pathology in which the Rorschach has been used is in the assessment of affect, with higher levels of negative affect states expected in BPD protocols (Mihura, 2006).

A number of studies have also been conducted to assess child abuse survivors’ Rorschach responses, and certain response patterns are common in such protocols. These indicators include higher affect-dominated responses, greater occurrence of morbid and sexual content, aggression, bodily concerns, and boundary problems (Briere, 1997). In 1990, Armstrong and Loewenstein developed such a scale to calculate an individual’s percentage of Traumatic Content (TC/R) on the Rorschach (also known as the Traumatic Content Index). The researchers noted that patients with high TC/R scores often became overwhelmed and overstimulated by the traumatic imagery that they saw in the Rorschach cards, and when this occurred reality testing deteriorated and thinking became more concrete and childlike (Armstrong & Loewenstein, 1990). Furthermore, the TC/R scale has been shown to be a robust predictor of intrusive traumatic material on the Rorschach (Brand et al., 2009).

Nordstrom and Carlsson (1997) expanded the use of the scale to individuals with nondissociative pathology. They examined participants with history of sexual abuse and supported Armstrong and Loewenstein’s (1990) hypothesis that TC/R scores may be elevated when a woman has suffered sexual abuse. Likewise, Kamphuis, Kugeares, and Finn (2000) conducted a study on outpatients with either definite or suspected sexual abuse histories, or no sexual abuse histories; results demonstrated that TC/R scores of the nonpatient adults suggested a near linear relation between TC/R scores and presence or severity of abuse (Kamphuis et al., 2000). Thus, the TC/R could be generalized to nondissociative sexual abuse survivors; patients who have been sexually abused may also face intrusive traumatic images and memories when confronted with the Rorschach cards (Kamphuis et al., 2000). One study has also examined the Rorschach indicators of chronic CSA in female borderline inpatients (Saunders, 1991). Results indicated that the sexually abused group had significantly higher scores on all Rorschach features, as well as on clinical measures (Saunders, 1991). These results suggest the possibility of some interaction between posttraumatic symptomatology and BPD, at least during periods of acute distress requiring hospitalization (Saunders, 1991).

Thus, the current study aims to replicate and extend this previous research using the RIM to assess Borderline Pathology (BP) and severity of CSA. It is particularly important to evaluate the impact of these variables, as well as the interaction of these two constructs in relation to psychological assessment data. Accordingly, our study will be one of the first to examine the relationship between independent clinical ratings of these two criteria, CSA severity and BP, with Rorschach variables assessing key areas of functioning that have been identified in the previous literature. Specifically, this study will examine reality testing, affect regulation, relational functioning, and traumatic content within a clinical sample comprised of varying degrees on both these criteria (i.e., BP & CSA, BP & No-CSA, No-BP & CSA, and No-BP & No-CSA). Our hypotheses are as follows: 1) Degree of BP will be significantly related to poorer reality testing (Blais & Bistis, 2004; Burla et al., 1997; Edell, 1987; Exner, 1986; Harris, 1993; Mihura, 2006; Patrick & Wolfe, 1983; Wilson, 1985); 2) Severity of CSA, BP and their interaction will be significantly related to poorer affect regulation (Blais & Bistis, 2004; Exner, 1986; Mihura, 2006), as well as more maladaptive relational functioning; and 3) Severity of CSA will be significantly related to higher levels of traumatic content (Armstrong & Loewenstein, 1990; Kamphuis et al., 2000; Lieb et al., 2004; Nash et al., 1993; Nordstrom & Carlsson, 1997; Yen et al., 2002).

Method

Participants

All participants are representative of those actually seeking outpatient treatment at a university-based community clinic. Cases were assigned to treatment practicum and clinicians in an ecologically valid manner based on real-world issues regarding aspects of clinician availability, caseload, and so forth. Moreover, patients were accepted into treatment regardless of disorder or comorbidity. The participants used in this study were patients (n = 60) admitted to a Psychodynamic Psychotherapy Treatment Team (PPTT) who had completed the RIM. Table 1 displays demographic information as well as the distribution of patients’ primary Axis I diagnoses for the entire sample in accordance with the DSM–IV (American Psychiatric Association, 1994). All 60 patients in this study received a DSM–IV Axis I diagnosis and 32 patients received an Axis II disorder with BP. Of these 32 BP patients, 9 met full (5 or more individual criteria) criteria for DSM–IV BPD, and 23 exhib-
Table 1  
Participant Demographic and Diagnostic Information

<table>
<thead>
<tr>
<th></th>
<th>Total sample (N = 60)</th>
<th>BP &amp; CSA (n = 18)</th>
<th>BP &amp; No-CSA (n = 14)</th>
<th>No-BP &amp; CSA (n = 13)</th>
<th>No-BP &amp; No-CSA (n = 15)</th>
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</thead>
<tbody>
<tr>
<td>Mean age</td>
<td>28.97 (10.09)</td>
<td>31.72 (9.86)</td>
<td>24.50 (8.64)</td>
<td>33.15 (11.35)</td>
<td>26.20 (8.76)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>10 (17%)</td>
<td>3 (17%)</td>
<td>1 (7%)</td>
<td>2 (15%)</td>
<td>4 (27%)</td>
</tr>
<tr>
<td>Female</td>
<td>50 (83%)</td>
<td>15 (83%)</td>
<td>13 (93%)</td>
<td>11 (85%)</td>
<td>11 (73%)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Single</td>
<td>38 (64%)</td>
<td>10 (55%)</td>
<td>12 (85%)</td>
<td>7 (54%)</td>
<td>9 (60%)</td>
</tr>
<tr>
<td>Married</td>
<td>11 (18%)</td>
<td>3 (17%)</td>
<td>1 (7%)</td>
<td>3 (23%)</td>
<td>4 (27%)</td>
</tr>
<tr>
<td>Divorced</td>
<td>11 (18%)</td>
<td>5 (28%)</td>
<td>1 (7%)</td>
<td>3 (23%)</td>
<td>2 (13%)</td>
</tr>
<tr>
<td>Primary Axis I diagnosis</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjustment disorder</td>
<td>3 (5%)</td>
<td>0 (0%)</td>
<td>1 (7%)</td>
<td>1 (7%)</td>
<td>1 (7%)</td>
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<tr>
<td>Anxiety disorder</td>
<td>6 (10%)</td>
<td>1 (5.6%)</td>
<td>3 (21%)</td>
<td>2 (15%)</td>
<td>0 (0%)</td>
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<td>Eating disorder</td>
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<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (7%)</td>
</tr>
<tr>
<td>Mood disorder</td>
<td>39 (65%)</td>
<td>15 (83%)</td>
<td>7 (50%)</td>
<td>8 (62%)</td>
<td>9 (60%)</td>
</tr>
<tr>
<td>Substance related disorder</td>
<td>1 (2%)</td>
<td>1 (5.6%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>V Code relational problem</td>
<td>10 (16%)</td>
<td>1 (5.6%)</td>
<td>3 (21%)</td>
<td>2 (15%)</td>
<td>4 (26%)</td>
</tr>
</tbody>
</table>

Note. BP & CSA = Borderline Pathology & Childhood Sexual Abuse; BP & No-CSA = Borderline Pathology & No Childhood Sexual Abuse; No-BP & CSA = No Borderline Pathology & Childhood Sexual Abuse; No-BP & No-CSA = No Borderline Pathology & No Childhood Sexual Abuse.

Rorschach Inkblot Measure

The RIM was the key assessment measure used in this study, administered and scored using the Exner Comprehensive System (CS; Exner, 2003). Two advanced doctoral students enrolled in an APA approved Clinical Ph.D. program underwent supervised training in CS Scoring in both a year-long class and structured assessment practicum. Additional training was provided to obtain criterion-based interrater reliability for Rorschach scoring (for description of this process see Hilsenroth, Charnas, Zodan, & Streiner, 2007). Following the guidelines of the Training Manual for Rorschach Interrater Reliability, the raters reached criterion-based interrater reliability for Rorschach scoring (Hilsenroth & Charnas, 2007) in the “good” (>0.60) to “excellent” (>0.75) range on all Rorschach variables during this training. These raters were blind to the diagnoses of the patients, as well as to the hypotheses and goals of the current study.

Comprehensive system variables. This study examined specific variables in three particular areas of interest. In assessing Reality Testing, Rorschach variables examining an individual’s Perceptual Distortion (X-%), Cognitive-Ideational Distortion (WSUM6), and Ego Impairment Index scores (EII-2) (Viglione et al., 2003) were evaluated. The Perceptual Distortion variable (X-%) is a proportion of answers in which form use is not commensurate with the blot features (Exner, 2003). The Cognitive-Ideational Distortion variable (WSUM6) calculates the weighted sum of all Special Scores present on an individual’s protocol. Special Scores are specific codes used only to identify unusual characteristics in a response, particularly responses including things like unusual verbalizations, perseverations, features of content, human representations, personalized answers, and color phenomenon (Exner, 2002). The Ego Impairment Index (EII) was developed to provide an index that could identify deficits in reality testing, reasoning, and the quality of object relations (Exner, 2003; Viglione et al., 2003).

In assessing Affect Regulation, our second area of interest, we evaluated Rorschach variables Sum Shading (Sum TYVC’) scores, Sum Affect (WSUMC) scores, and Depression Index (DEPI) scores. Both shading responses and chromatic color response have been linked to affective experiencing in past studies (Appelbaum & Colson, 1968; Appelbaum & Holtzman, 1962; Exner, 2003). For the Sum Shading score, all shading responses are totaled to obtain a single score (Sum TYVC’). The Sum Affect score (WSUMC) is calculated by multiplying each type of chromatic color response by a weight. The higher this score, the more affect may have been elicited during the administration of the Rorschach. Our last area of interest was relational functioning; it was evaluated by the Poor Human Representation scores (PHR). An individual’s PHR score indicates the number of negative perceptions an individual has with regard to interacting with others.

Mutuality of autonomy (MOA) scale. In addition to these common CS (Exner, 2003) variables, we assessed relational functioning through examination of the Mutuality of Autonomy Scale (MOA Scale). This measure uses a 7-point Likert-type scale to assess different levels of interpersonal relatedness based on movement responses on the Rorschach. The scale is rooted in a developmental model that defines various levels or stages of relatedness based on a sense of individual autonomy and the capacity to establish mutuality. Rorschach responses are scored on this 7-point scale if a relationship is stated or clearly implied between animate (people or animals) or inanimate objects. Lower MOA Scale scores (i.e., 1–2) represent more mature and developmentally advanced relationships, whereas higher MOA Scale scores (5, 6, or 7) suggest more negative and primitive relationships (Urist, 1977). In this study, we examined three types of MOA Scale scores:
MOA-Mean, MOA-Low, and MOA-High. MOA-Mean (also MOA-M) is the sum of all MOA Scale scores on an individual’s Rorschach protocol divided by the number of responses with MOA Scale scores; essentially, the mean of MOA Scale scores. MOA-Low (also MOA-L) represents the single lowest, and therefore most adaptive, score on an individual’s protocol, whereas MOA-High (also MOA-H) represents the single highest, and least adaptive, score. Lower MOA Scale scores represent more mature and developmentally advanced relationships, whereas higher MOA Scale scores suggest more negative and primitive relationships (Urist, 1977). Past research has shown that Rorschach responses of individuals with BPD are frequently more pathological as rated by the MOA Scale (Berg, Packer, & Nunno, 1993; Blais, Hilsenroth, Fowler, & Conboy, 1999; Blais & Bistis, 2004). The MOA-M has been found to be the most widely used variable on this scale, also with the highest levels of criterion validity (Monroe, Diener, Fowler, Sexton, & Hilsenroth, in press).

Trauma content index (TC/R). An individual’s TC/R score (sum of blood, sex, anatomy, morbid, and aggressive responses/R), aids in assessing trauma as it appears on Rorschach protocols. Armstrong and Loewenstein (1990) proposed that the higher the percentage of traumatic content on the protocol, the greater the intrusiveness of traumatic material from the patient’s past. In Armstrong and Loewenstein’s original (1990) study, they found that dissociative patients with trauma history obtained an average score of .50. In Nordstrom and Carlsson’s work, participants who had no history of sexual abuse achieved a TC/R score of .35; those who had suspected but not definitive history of sexual abuse had a mean TC/R score of .41; participants with documented histories of CSA had a mean TC/R of .51; and lastly, the mean TC/R score of those who had been sexually abused as adults was .77 (Nordstrom & Carlsson, 1997). Kamphuis et al. (2000) suggest a classification rule of TC/R ≥ .25 produces reasonable sensitivity and specificity, with 77% of individuals with CSA being identified as such and only 30% of the nonabused individuals being falsely classified as abused.

Rorschach oral dependency. Rorschach Oral Dependency (ROD; Masling, Rabie, & Blondheim, 1967) scores were tabulated by adding the number of responses that included food, eating, or other oral imagery, as well as dependent imagery (e.g., a person begging for help). This scale has been the most widely used performance based measure of interpersonal dependency over the last 40 years (Bornstein & Masling, 2005). ROD scores have been shown to predict conformity, compliance, help seeking, and interpersonal yielding in a variety of situations (Bornstein et al., 2000). High scores on this scale have also been associated with increased sensitivity to interpersonal cues, an insecure attachment style, negative mood, and difficulty terminating psychotherapy (Bornstein et al., 2000). Results such as these continue to support the convergent validity of the ROD scale as a measure of interpersonal dependency. Given the interpersonal and relational difficulties that individuals with BPD face, examination of ROD scores within this population could prove fruitful.

Dependency was examined by evaluating ROD percent scores and ROD FAT percent scores. Thus, ROD scores were calculated in two ways. ROD % scores are the overall number of ROD responses in both the Free Association and the Inquiry portions of an individual’s responses. Meanwhile, the ROD FAT % scores measure only the ROD responses in the Free Association portion of an individual’s responses. The ROD FAT % form of scoring is the traditional method in scoring (see Bornstein & Masling, 2005; Masling et al., 1967), whereas the ROD % is more inclusive and consistent with other standard scores in the Exner system. Because the ROD % takes into account ROD responses from the Free Association phase of the Rorschach, as well as from the Inquiry phase, it allows more than 1 ROD to be scored per response.

Abuse Dimensions Inventory (ADI). The ADI (Chaffin, Wherry, Newlin, Crutchfield, & Dykman, 1997) is a rating scale that a clinician completes after the initial interview with the patient. During the interview, the clinician asks detailed questions about abuse histories, including physical, emotional, and sexual abuse. The ADI is then completed by the clinician after the interview, based on the detailed reports elicited. The ADI was developed to assess characteristics and severity of childhood abuse. The sexual abuse behaviors rating scale catalogues forms of abuse ranging in severity from 0 (none) to 12 (ritual and satanic abuse or sexualized torture). Chaffin et al. (1997) reported an overall mean kappa of .80, with a Spearman–Brown adjusted value of .94; individual scale kappas ranged from .65 to 1.00. Chaffin et al. also evaluated the interrater reliability of the scale scores, ranging from .96 to .99 for four raters and from .84 to .99 for any single rater ([ICC > .75]; Fleiss, 1981). Previous research has found ICC ratings in the excellent range (ICC = .95) for the ADI by using a subset of the participants in the current study (Callahan et al., 2003), and demonstrating strong validity of the measure.

Procedure. Advanced graduate students enrolled in an American Psychological Association (APA) approved Clinical Psychology Ph.D. program conducted the psychological assessment, feedback sessions, and ratings of DSM–IV diagnoses. All clinicians had completed graduate course training in descriptive psychopathology and were supervised by a licensed, Ph.D., Clinical Psychologist with several years of applied experience. Also, each clinician received a minimum of 3.5 hours of supervision per week (1.5 hour individually, and 2 hours in a group treatment team meeting) on the therapeutic assessment model/process, scoring/interpretation of assessment measures, clinical interventions, and presentation/organization of collaborative feedback. Participants were asked to complete the Rorschach as part of the assessment process. The administration and scoring of all the Rorschach protocols followed the procedures delineated by Exner (1993, 2003).

Diagnoses were assigned after a standardized interview which included an assessment of all salient therapeutic topics such as presenting problems; past psychiatric and medical history; family history; developmental, social, educational, and work history; an exploration of both historic and current relational episodes; and a mental status exam that included an assessment of all DSM–IV symptom criteria for Schizophrenia, Major Depressive/Manic/ Mixed episode, Dysthymia, as well as many anxiety symptoms. This was not a SCID interview, but many DSM–IV criteria for specific disorders were evaluated. The ability, and reliability, of this interview to diagnose both Axis I and II disorders has been demonstrated in previous literature (see Callahan et al., 2003;
Hilsenroth et al., 2001; Hilsenroth et al., 2004; Stein et al., 2007). Though therapists also administered the Rorschach to their respective patients, the diagnoses were made based on the interview.

To ensure that no extraneous information was influencing the therapist’s diagnostic decision, a second (blind) rater also assigned diagnoses based on a videotape of only the structured interview of the patient. ICC values were calculated and the interrater reliability for the presence or absence of BPD, the diagnostic issue most pertinent to the current study sample, was found to be quite high (k = .74; Stein et al., 2007). In a previous manuscript we describe dimensional ratings of personality pathology with 0 = absence of PD, 1 = features of PD, 2 = presence of personality disorder, the reliability of this dimensional rating of Axis II pathology in this sample was excellent (ICC = .85; Peters, Hilsenroth, Eudell-Simmons, Blagys, & Handler, 2006). In this study we define BP as the degree of BPD symptoms present and examine BP as a dimensional variable (0–2) which spans from no BPD criteria (0), to the degree of BPD symptoms present and examine BP as a dimensional rating of Axis II pathology in this sample and for this specific study. The Rorschach protocols used in this study were collected between 1997 and 2009 from patient assessment as part of programmatic psychotherapy process and outcome research (Hilsenroth et al., 2007). Rorschach protocols in the current sample share some overlap with those used in 3 other studies (Charnas et al., 2010; Hilsenroth, Charnas, Zodan & Streiner, 2007; Zodan et al., 2009).

Results

The raw mean and standard deviation for all Rorschach variables used in the study for the total sample are reported in Table 2. In addition, we also provide this descriptive information on each of the four subgroups of our sample (i.e., BP & CSA, BP & No-CSA, No-BP & CSA, and No-BP & No-CSA). Before analyses we

Table 2
Mean and Standard Deviation of Rorschach Variables as Well as Relationship With Criterion Variables (N = 60)

<table>
<thead>
<tr>
<th>Rorschach variable</th>
<th>Total sample (N = 60)</th>
<th>BP &amp; CSA (n = 18)</th>
<th>BP &amp; No-CSA (n = 14)</th>
<th>No-BP &amp; CSA (n = 13)</th>
<th>No-BP &amp; No-CSA (n = 15)</th>
<th>Criterion variable</th>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>BP</td>
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<tr>
<td>X-%</td>
<td>21.50</td>
<td>19.44</td>
<td>27.57</td>
<td>24.39</td>
<td>15.73</td>
<td>r = −.04</td>
</tr>
<tr>
<td></td>
<td>(12.79)</td>
<td>(7.69)</td>
<td>(19.17)</td>
<td>(10.81)</td>
<td>(9.51)</td>
<td>r = .79</td>
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<tr>
<td>WSUM6</td>
<td>6.00</td>
<td>5.50</td>
<td>4.50</td>
<td>9.62</td>
<td>4.73</td>
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<td>(3.29)</td>
<td>(10.26)</td>
<td>(5.24)</td>
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</tr>
<tr>
<td>EII-2</td>
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<td>0.03</td>
<td>−0.12</td>
<td>0.07</td>
<td>−0.45</td>
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<tr>
<td></td>
<td>(0.67)</td>
<td>(0.71)</td>
<td>(0.59)</td>
<td>(0.69)</td>
<td>(0.58)</td>
<td>r = .04</td>
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<td>Affect regulation</td>
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<tr>
<td>Sum TYVC’</td>
<td>4.88</td>
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<td>(1.94)</td>
<td>(3.78)</td>
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<td>(1.77)</td>
<td>(1.82)</td>
<td>(1.58)</td>
<td>(1.90)</td>
<td>(1.73)</td>
<td>r = .01</td>
</tr>
<tr>
<td>DEPI</td>
<td>3.93</td>
<td>4.44</td>
<td>3.71</td>
<td>4.31</td>
<td>3.20</td>
<td>r = .37</td>
</tr>
<tr>
<td></td>
<td>(1.26)</td>
<td>(1.20)</td>
<td>(0.91)</td>
<td>(1.49)</td>
<td>(1.08)</td>
<td>r = .004</td>
</tr>
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<td>Relational functioning</td>
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<td></td>
<td></td>
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<tr>
<td>PHR</td>
<td>2.72</td>
<td>3.56</td>
<td>2.57</td>
<td>2.54</td>
<td>2.00</td>
<td>r = .14</td>
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<tr>
<td></td>
<td>(2.03)</td>
<td>(0.46)</td>
<td>(1.74)</td>
<td>(1.66)</td>
<td>(1.56)</td>
<td>r = .27</td>
</tr>
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<td>MOA-M</td>
<td>2.90</td>
<td>3.25</td>
<td>3.05</td>
<td>2.52</td>
<td>2.61</td>
<td>r = .26</td>
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<td></td>
<td>(0.76)</td>
<td>(0.75)</td>
<td>(0.72)</td>
<td>(0.73)</td>
<td>(0.66)</td>
<td>r = .04</td>
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<tr>
<td>MOA-L</td>
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<td>1.50</td>
<td>1.58</td>
<td>1.27</td>
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<td></td>
<td>(0.50)</td>
<td>(0.51)</td>
<td>(0.51)</td>
<td>(0.51)</td>
<td>(0.46)</td>
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<td>MOA-H</td>
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<td>5.57</td>
<td>4.17</td>
<td>4.73</td>
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<tr>
<td></td>
<td>(1.74)</td>
<td>(1.38)</td>
<td>(1.39)</td>
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<td>(1.98)</td>
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<td>ROD%</td>
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<tr>
<td></td>
<td>(0.19)</td>
<td>(0.20)</td>
<td>(0.20)</td>
<td>(0.18)</td>
<td>(0.20)</td>
<td>r = .72</td>
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<td>ROD FAT%</td>
<td>0.09</td>
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<td>0.01</td>
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</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.07)</td>
<td>(0.10)</td>
<td>(0.79)</td>
<td>(0.06)</td>
<td>r = .81</td>
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<td>Traumatic content</td>
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<tr>
<td>TCR</td>
<td>0.22</td>
<td>0.24</td>
<td>0.24</td>
<td>0.19</td>
<td>0.18</td>
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</tr>
<tr>
<td></td>
<td>(0.15)</td>
<td>(0.17)</td>
<td>(0.15)</td>
<td>(0.11)</td>
<td>(0.15)</td>
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</table>

Note. BP & CSA = Borderline Pathology & Childhood Sexual Abuse; BP & No-CSA = Borderline Pathology & No Childhood Sexual Abuse; No-BP & CSA = No Borderline Pathology & Childhood Sexual Abuse; No-BP & No-CSA = No Borderline Pathology & No Childhood Sexual Abuse; CSA = Childhood Sexual Abuse; BP = Borderline Pathology; X-% = Perceptual Distortion; WSUM6 = Cognitive-Ideational Distortion; EII-2 = Ego Impairment Index; SumTYVC’ = Sum Shading; WSUMC = Sum Affect; DEPI = Depression Index; PHR = Poor Human Representation; MOA-M = Mutuality of Autonomy – Mean; MOA-L = Mutuality of Autonomy – Low (most adaptive); MOA-H = Mutuality of Autonomy – High (least adaptive); ROD% = Rorschach Oral Dependency, Free Association and Inquiry; ROD FAT% = Rorschach Oral Dependency, Free Association only (traditional scoring); TCR = Trauma Content Index.
examined the distribution of our Rorschach variables in relation to Curran, West, and Finch (1996) criteria for normality (i.e., Skew <2.0, Kurtosis <7.0), and found that our total sample scores were all within these limits. Two-tailed Pearson correlations (rs) were conducted between the Rorschach variables and the independent criterion ratings (CSA severity & BP). In these analyses there were a number of significant findings1 (see Table 2). Finally, we examined the interaction effects of CSA severity and BP, using multiple regression, in relation to the Rorschach variables examined.

In terms of reality testing, EII-2 was significantly related to CSA severity (r = .26, p = .04) and WSUM6 demonstrated a trend toward significance (r = .24, p = .06). Greater impairment in ego functions and more severe thought disorder special scores from the Rorschach were related to more severe CSA experiences. None of the three Rorschach reality testing variables were significantly related to the degree of BP. We examined the interaction of CSA severity and BP using a multiple regression on the prediction of X-%, WSUM6, and EII-2 and each was nonsignificant (all p > .10).

In terms of affect regulation, all three Rorschach variables under investigation (Sum TYVC, WSUMC, DEPI) were significantly related to CSA severity (r = .36, p = .005, r = .32, p = .01, and r = .37, p = .004, respectively), where higher levels of emotional dysregulation, affective responsivity, and dysphoric affect were related to more severe CSA experiences. None of these three Rorschach affect regulation variables were significantly related to the degree of BP. We examined the interaction of CSA severity and BP using a multiple regression on the prediction of Sum TYVC, WSUMC, and DEPI, and each was nonsignificant (all p > .10).

When evaluating relational functioning, results indicated that MOA-M scores were significantly related to both criterion ratings of CSA severity (r = .26, p = .04) and degree of BP (r = .32, p = .01). This indicates that the greater average malevolence and impingement on autonomy demonstrated by objects on the Rorschach, the more severe the patient’s CSA experiences and degree of BP. None of the other three Rorschach relational functioning variables were significantly related to CSA severity. MOA-H was significantly related to degree of BP (r = .29, p = .03) and PHR demonstrated a trend toward significance (r = .23, p = .07), where a greater number of malevolent representations on the Rorschach were related to a greater degree of BP. None of the other Rorschach relational functioning variables were significantly related to the degree of BP. We examined the interaction of CSA severity and BP using a multiple regression on the prediction of each of the relational functioning variables and all were nonsignificant (all p > .10). Finally, Trauma Content Index scores (TC/R) were also examined in relation to CSA severity, degree of BP, and their interaction. All of these analyses were found to be nonsignificant (all p > .10).

Discussion

The present study aimed to replicate and extend previous research using the Rorschach to assess CSA severity and BP. In this study, we examined Rorschach variables assessing four key areas of BP, that is, reality testing, affect regulation, relational functioning, and traumatic content, at one time. In addition, the use of a performance based measure like the Rorschach to assess the relation of these variables with CSA severity may offer important information to both researchers and clinicians. This is especially so for the relationship within borderline populations, as the incidence of CSA in such groups is high (40–70%; Lieb et al., 2004). Within the identified areas, analyses showed that in the realm of Reality Testing, some impairments were noted in relation to CSA severity. With regard to Affect Regulation, it was found that each of the Rorschach variables examined was significantly related to CSA severity. Then, in examining Relational Functioning, both the number and degree of malevolent representations were found to be related to BP symptomatology. Such results are noteworthy for future research, because whereas past investigations have examined overlapping BP and CSA samples, our data suggest that degree of BP is more strongly related with relational difficulties while CSA severity is more robustly associated with affective dysregulation on the Rorschach.

As Exner (1986) noted, individuals with BPD can become overstimulated and overburdened by what they see in the blots and this may lead to increased Sum Shading scores (Sum TYVC’). Although it is possible that other personality factors, such as dependency, self-criticism, and chronic maladaptive core beliefs, may also explain the heterogeneity between affective instability and BPD (Kopala-Sibley et al., 2012), the high incidence of CSA in BP samples may suggest that abuse histories can significantly impact affect regulation and modulation as measured by the Rorschach. To better understand this phenomenon, we specifically explored this relationship and found that CSA severity was robustly related to affect Rorschach variables. These analyses revealed that more severe CSA histories were related with higher scores of emotional dysregulation, affective responsivity, and dysphoric affect. Though affective instability is a core characteristic of BPD, this finding is particularly noteworthy in that the aspect of BP that contributes to affective dysregulation on the Rorschach may manifest through a history of CSA. This supports prior research that has linked CSA with depression later in life, chronic self-destructiveness, self-harm, suicidal ideation, and suicide attempts (Boudewyn & Liem, 1995).

When assessing relational functioning, more malevolent and extreme object representations were associated with greater borderline pathology. As a group, BPD patients have a heightened sensitivity to emotional insecurity and perceived inferiority, which may be related to greater negative affect (Kopala-Sibley, Zuroff, Russell, Moskwowitz, & Paris, 2012). As such, individuals with borderline features tend to attribute more “negative emotional qualities and more malevolent motives to others (and their internal representations of others)” than do other patients (Blais & Bistis, 2004, p. 492). Although a CSA history may predispose an individual to affective instability, BP may more consistently lead to boundary disturbance, attribution and comprehension problems in relationships. Certain characteristics of BPD (i.e., polarity of relational experience and splitting) have been found to increase interpersonal stress (Coifman et al., 2012). Thus, these factors likely play a determining role in these relationship disturbances. This finding is in line with other research demonstrating that

1 According to Cohen (1988), correlations can be converted to effect sizes as follows: .10–.30 = a small effect, .3–.5 = a medium effect, and > .50 = a large effect.
individuals with BPD tend to have MOA scores that are greater than clinical control participants and at the extreme malevolent end of the spectrum (Blais et al., 1999; Blais, Hilsenroth, Fowler, & Conboy, 1999; Blais & Bistis, 2004; Fowler, Hilsenroth, & Nolan, 2000; Urist, 1977).

Notably, tests of traumatic content variables with TC/R did not yield significance. This may be attributable to several reasons. In Armstrong and Loewenstein’s original (1990) study, their participants were inpatients. In that particular population, researchers found average TC/R scores of dissociative patients to fall at an average of .50, and within a range of .30 to .80. Our sample, which comprised outpatients, exhibited a mean TC/R score of .22 (sub-group means ranged from .18 - .24). This may suggest that—as one might expect—TC/R scores are considerably lower for outpatients. It may be that in an outpatient sample the TC/R scale does not measure trauma specific to CSA, but also physical abuse and emotional trauma related to a BPD diagnosis. However it does pose an interesting question. In the TC/R research reviewed earlier, none of the samples had both diagnoses of BPD and histories of CSA, as was the case in our sample. When Kamphuis et al. conducted their (2000) study examining sexual abuse in a sample of outpatients with varying severity of CSA, researchers found that the TC/R was strongly associated with the presence and severity of CSA, though it could not distinguish sexually abused outpatients from nonsexually abused outpatients with great accuracy. In their study, researchers found that individuals without sexual abuse had TC/R mean scores of .18; individuals with suspected sexual abuse had TC/R mean scores of .26, and individuals with definite sexual abuse had mean TC/R scores of .32. The researchers noted that the TC/R appears to have some sensitivity to other forms of trauma (physical abuse, emotional abuse, etc.), which is not surprising in that some of the contents which constitute the TC/R score are not specifically sexual in nature (i.e., An, Bl, AG, MOR; see Kamphuis et al., 2000). The TC/R scores in the current study seem more in line with scores found in Kamphuis et al.’s study, perhaps because of the similar population used. Additionally, it may be that we did not find significance on this variable because our sample included clinical patients without CSA, as opposed to a nonclinical “normal” control sample. Individuals in a clinical sample (such as BP, CSA, or pure Axis I) may have elevations in TC/R, not just CSA. It is important for future research to continue to examine the relationship between BP and CSA severity with regard scores on the TC/R, in both outpatient and inpatient samples.

The absence of a significant correlation between BP severity and ROD scores in our outpatient sample is noteworthy. Although a number of clinicians and clinical researchers have delineated links between dependency strivings, fears of abandonment, and borderline pathology (e.g., Gunderson, 2007; Lieb et al., 2004), Bornstein, Becker-Matero, Winarick, and Reichman’s (2010) review of the literature on the relationship between performance-based measures of dependency and borderline pathology found that high levels of implicit dependency needs are typically present in BPD-diagnosed inpatients, but not in BPD-diagnosed outpatients. These contrasting patterns may suggest that BP-related dynamics differ somewhat in high- and lower-functioning patients with underlying borderline pathology (see also Bornstein et al., 2000, for evidence bearing on this issue). Alternatively, the experience of hospitalization may exacerbate dependency-related needs and fears in BPD patients, leading to increases in dependent imagery, and increases in ROD scores. Whatever the cause, the complex link between dependency and borderline pathology (as well as other forms of personality pathology) warrants additional scrutiny in various clinical populations.

This research contributes to the literature on BPD in multiple ways. Most notable is the use of a naturalistic sample seeking treatment for Axis I and II psychopathology. Furthermore, the inclusion of clinical patients who have neither BP nor CSA allows for more accurate interpretation and greater generalizability of the findings to multiple outpatient settings. This study also includes patients with comorbid diagnoses; in many clinical settings Axis I problems are intertwined with Axis II personality processes greater than 50% of the time (Westen & Arkowitz-Westen, 1998; Westen, Novotny, & Thompson-Brenner, 2004). As such, our naturalistic sample lends greater credence to findings of specific interpersonal patterns that might better relate to BP in the context of other types of pathology. It also proves quite useful to use the Rorschach to assess symptoms associated with trauma exposure, particularly in a population where the rates of said trauma are so high. Specifically, an individual with CSA history may show elevated affect dysregulation on the Rorschach while an individual with BP symptomatology may show elevated relational difficulties. Such information during an assessment phase of treatment may assist clinicians in formulating better conceptualizations of a patient and his or her difficulties, and this information can then be used to formulate a more comprehensive and applicable treatment plan. The clinician may be able to better listen for certain cues in the beginning of treatment to begin to explore the affective and relational issues that the patient presents. Moreover, these deficits in social understanding will likely be an important construct in the therapist’s ability to form a strong therapeutic alliance with a BPD patient (Brand et al., 2009).

The current study also has certain limitations. The sample used is a university-based outpatient sample with mild to moderate pathology. The patients in the sample are primarily mood-disordered (65% met criteria for a mood disorder) and Axis II (53% met criteria for BP). Of the 60 patients, 32 patients received an Axis II disorder with BP, 9 of which met full (5 or more individual BPD criteria) criteria for DSM–IV BP; 23 of the 60 patients exhibited prominent traits/features (i.e., 3 or 4 individual criteria) of BPD as part of Personality Disorder Not Otherwise Specified (PD NOS) diagnosis where these BPD symptoms were seen as the primary personality pathology. Thus, our findings may have been more robust had a greater proportion of patients met full criteria for BPD.

The findings of this study support and extend previous research on the use of the Rorschach in the examination of BP symptomatology and CSA severity. Given the complex interaction between these two constructs, it is important that scores on the Rorschach also be related to independent criterion ratings of CSA and BP. The fact that the core elements of these conditions have been supported with a performance based measure speaks to how strongly ingrained in a patient’s overall dynamics these particular symptoms may be, and how powerful an effect CSA can have on an individual. The results of the current study suggest that CSA severity may be more related with affective indicators on the Rorschach, whereas BP symptomatology may be more related to malevolent representations. Future investigators should be cognizant of how the relationship between CSA severity and Rorschach
affect variables may combine to obscure meaningful differences when patients possessing both a history of CSA and BP are examined in research samples.

References


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