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Interpersonal Assessment of Borderline Personality Disorder: Preliminary Findings

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We examined the reliability and validity of scores on an interpersonal measure of borderline personality disorder (BPD). Ratings on the Interpersonal Measure of Borderline Personality Disorder (IM–B) were based on nonverbal behaviors and interpersonal interactions occurring during clinical interviews with 276 adults. Scores on the IM–B exhibited good reliability. IM–B scores also displayed expected patterns of associations with scores on other measures of BPD, as well as with scores on measures of affective dysfunction, interpersonal pathology, and behavioral impairment associated with BPD, including indexes of maladaptive emotion regulation, interpersonal sensitivity, and self-harm. The pattern of associations for IM–B scores was quite similar to what would be expected for a dimensional measure of BPD symptoms. Scores on the IM–B were also associated with symptoms of disorders generally comorbid with BPD. Finally, IM–B scores contributed incrementally to the prediction of interpersonal dysfunction and suicidal ideation and behavior. Discussion focuses on implications for the assessment of BPD.

Many personality disorders are characterized by distinctive maladaptive interpersonal behavior ( Widiger & Frances, 1985), and several theorists have conceptualized personality disorders in interpersonal terms (e.g., Benjamin, 1996; Leary, 1957; Pincus & Hopwood, 2012). The increasing interest in the interpersonal aspects of personality pathology is demonstrated by the introduction of interpersonal impairment as a central defining feature of personality disorder in an alternative formulation presented in the Diagnostic and Statistical Manual of Mental Disorders (DSM–5; American Psychiatric Association, 2013; Wright et al., 2012). Moreover, recent studies have demonstrated that increased attention to behavior exhibited in specific contexts can assist in the assessment of several personality disorders, including psychopathy (Kosson, Steuerwald, Forth, & Kirkhart, 1997), schizotypal personality disorder (Kendler & Lister-Sharp, 1989), and schizoid personality disorder (Collins, Blanchard, & Biondo, 2005). Such interpersonal measures provide a useful supplement to more comprehensive self-report and interview-based assessment tools and can provide an efficient screening for personality pathology that places little burden on the individual or the rater. This study is the first to examine the utility of an interpersonal measure of borderline personality disorder (BPD).

BPD is characterized by persisting and severe problems across interpersonal (e.g., intense, unstable relationships characterized by extreme idealization and devaluation), cognitive (e.g., identity disturbance characterized by unstable self-image), emotional (e.g., affective instability), and behavioral (e.g., recurrent suicidal or parasuicidal behavior) domains of functioning (American Psychiatric Association, 2013). Individuals with BPD commonly present for treatment in psychiatric settings, accounting for approximately 10% of psychiatric outpatients and 20% of psychiatric inpatients (Widiger & Frances, 1989; Widiger & Weissman, 1991). In addition, BPD is associated with high rates of Axis I and Axis II comorbidity (Skodol, Gunderson, McGlashan, et al., 2002). Importantly, BPD is associated with severe impairments in functioning (Skodol, Gunderson, McGlashan, et al., 2002; Skodol et al., 2005), psychiatric hospitalizations (Surber et al., 1987; Swigar, Astrachan, Levine, Mayfield, & Radovich, 1991), and increased risk for self-harming and suicidal behaviors (Fyer, Frances, Sullivan, Hurt, & Clarkin, 1988). However, the extent to which disturbances in interpersonal functioning are central to BPD is a matter of some controversy. Some studies have suggested that BPD is not well represented in interpersonal terms (Wiggins & Pincus, 1989) or that BPD reflects fundamental disturbances of the self (e.g., Meares, 2012), but other perspectives argue that interpersonal disturbances are critical to the genesis and pathology of BPD (e.g., Kaehler & Freyd, 2012; Lazarus, Cheavens, Festa, & Rosenthal, 2014; Linehan, 1993) or that some of the inconsistent findings reflect variability in the kinds of interpersonal problems associated with BPD (Wright et al., 2013).

A variety of structured diagnostic interviews and self-report measures are widely used for assessing BPD. Among interview measures, the Structured Clinical Interview for DSM–IV Axis II Disorders (SCID–II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997), the Diagnostic Interview for DSM–IV Personality Disorders (Zanarini, Frankenburg, Chauncey, & Gunderson, 1987), and the International Personality Disorders Examination (World Health Organization, 1995) have all been validated and used extensively in research studies investigating BPD. Although personality questionnaires are also widely used to assess BPD (e.g., Personality Assessment Inventory [PAI; Morey, 1991]), the merits of questionnaire versus...
Interview measures are controversial. Whereas some researchers suggest that BPD (like other personality disorders) can be explained by extremes of normal personality and effectively assessed using self-report scales (Trull, Widiger, Lynam, & Costa, 2003), others suggest that substantial variance in BPD cannot be explained by normal personality dimensions (Morey et al., 2002). Because both diagnostic interviews and self-report measures of personality functioning have strengths and limitations in assessing BPD, there is no single gold standard for assessing BPD across clinical and community samples (e.g., Oltmanns, Rodrigues, Weinstein, & Gleason, 2014).

In addition, the dependence of both questionnaires and interviews on individuals’ self-reports might limit the utility of both assessment methods. Individuals with BPD symptoms, like many other individuals with Axis II pathology, are sometimes characterized by poor insight, and might have an attenuated ability to observe and report their “thought patterns and styles” (Linehan, 1993, p. 364). Moreover, the unstable self-image and affective liability that characterize BPD individuals could further reduce the predictive validity of these individuals’ self-reported private experiences in situations involving interpersonal stressors (Bateman & Fonagy, 2010; see also Westen & Shedler, 1999). Indeed, diagnoses of BPD have been reported to change (and diagnostic agreement to improve) when informant data are available (Zimmerman, Pfohl, Stangl, & Corenthal, 1986). Although convergence between different measures of BPD has been reported (Trull, 1993), correlations between scores on BPD scales and other scales are sometimes as high as those between two measures of BPD. In light of these findings, Widiger and Trull (1987; Trull, 1993; see also Oltmanns et al., 2014) have argued that it could be problematic to rely exclusively on one measure in the assessment of personality disorders and instead recommend the use of multiple assessment methods.

An observer-rated, interpersonal approach to assessment has proven useful in other personality disorders for which attenuated ability or motivation to accurately report private experience might increase the difficulty of diagnosis. The Interpersonal Measure of Psychopathy (IM–P; Kosson et al., 1997) was developed based on recognition that psychopaths’ tendencies toward deception and interpersonal manipulation and their lack of insight (Cleckley, 1941) could compromise the validity of interview and self-report instruments for assessing psychopathy. Kosson et al. (1997) reported that IM–P ratings contributed to (cross-sectional) prediction of several relevant criteria, after controlling for Psychopathy Checklist–Revised (PCL–R; Hare, 2003) ratings. In particular, IM–P ratings demonstrated unique associations with interviewers’ emotional responses to participants, the number of fights in which participants had participated, and, in an independent sample, observers’ ratings of interpersonal behavior. Subsequent studies have shown that IM–P ratings aid in identifying subgroups of individuals with psychopathic traits (Swogger & Kosson, 2007; Vassileva, Kosson, Abramowitz, & Conrod, 2005).

Individuals with schizoid personality disorder are also characterized by an attenuated willingness or ability to communicate private experiences, and the Interpersonal Measure of Schizoidia (IM–SZ; Kosson et al., 2008) has demonstrated that interpersonal assessment can be useful for a disorder within the odd, eccentric cluster. Collins et al. (2005) found that scores on the IM–SZ contributed to prediction of social anhedonia after controlling for dimensional scores on the International Personality Disorder Examination Schizoid Personality Disorder (IPDE SZPD) scale, when completed by a rater blind to such diagnostic scores. Kosson et al. (2008) demonstrated that IM–SZ scores contributed to prediction of IPDE SZPD but were less strongly correlated with IPDE ratings of other personality disorders than were IPDE SZPD scores. Moreover, IM–SZ scores were uniquely associated with independent ratings of interpersonal behavior.

In summary, research with the IM–P and IM–SZ provides preliminary support for the proposal that observer ratings of interpersonal behavior during research interviews provide reliable and valid measures of personality pathology. These studies suggest that interpersonal measures (i.e., measures of observable verbal and nonverbal behavior during interactions with others) could present a valuable supplement to traditional self-report and interview-based assessments in the prediction of clinically important behaviors.

There are two additional advantages of interpersonal measures. First, interpersonal measures might be less susceptible to criterion contamination than interview and self-report measures of personality disorder. Although it is understandable that such measures directly query individuals about diagnostically relevant maladaptive behaviors outside the interview context (e.g., suicidality, substance use, binge eating, and criminality), measures focused exclusively on observed interpersonal behaviors do not address such behaviors. Therefore, observer-rated interpersonal measures are useful for specifying relationships between personality disorders and clinically relevant behaviors in a manner that is relatively invulnerable to criterion contamination. With regard to BPD, instruments such as the Interpersonal Measure of Borderline Personality Disorder (IM–B) that do not assess frequency or intensity of self-harm could help to clarify the nature of the association between self-harm and BPD features. Second, ratings of interpersonal behavior are present focused. Whereas self-report and interview measures could be influenced by memory biases or lapses (Gloster et al., 2008; Simon & Von Korff, 1995), interpersonal measures avoid such influences. Their focus on present behaviors might also make interpersonal indexes sensitive to changes in personality disorder. This quality is particularly noteworthy in light of increasing acknowledgment of clinically relevant dynamic development in personality disorder symptomatology and attendant criticisms of personality disorder measures not designed to capture such changes (Tyrer, 2005).

In light of the utility of interpersonal measures for the assessment of other personality disorders and of calls for increased attention to the assessment of BPD, we developed the IM–B. The measure was designed to quantify the interpersonal manifestations of BPD as currently conceptualized (e.g., American Psychiatric Association, 2000, 2013; Linehan, 1993; Skodol, Gunderson, Pfohl, Livesley, & Siever, 2002) without relying on self-reports of specific pathology. In addition, we hoped that the IM–B would provide a relatively efficient and flexible means of assessing BPD features in that it was designed to permit scoring based on any substantial interpersonal interaction (e.g., intake interview, structured clinical interview, therapy session). This study was designed to provide the first examination of the reliability and validity of IM–B scores in a community outpatient sample including individuals with substantial
BPD symptomatology. To address reliability, we computed internal consistency of IM–B scores and interrater agreement between independent raters. To address construct validity, we computed correlations between IM–B scores and scores on measures of constructs related to and independent of BPD. We predicted that IM–B scores would correlate strongly with other validated measures of BPD and with indexes of impairment in several domains considered important in current conceptualizations of BPD including affective, interpersonal, and behavioral functioning. Specifically, given well-documented links between BPD symptoms and poor affect regulation (Rosenthal, Cheavens, Lejuez, & Lynch, 2005; Rosenthal, Cukrowsicz, Cheavens, & Lynch, 2006), we predicted that IM–B scores would correlate positively with indexes of maladaptive emotion regulation associated with BPD, including chronic thought suppression, problematic thought control strategies, and greater ambivalence over emotional expression, but would be uncorrelated with (or even negatively correlated with) indexes of adaptive emotion regulation. In addition, given links between BPD symptoms and interpersonal aggression, we predicted that IM–B scores would be associated with greater interpersonal violence.

Given that BPD is often comorbid with affective and anxiety disorders and some other personality disorders, we predicted positive correlations between IM–B scores and measures of symptoms associated with depression, posttraumatic stress disorder (PTSD) and anxiety (Skodol, Gunderson, Pfohl, et al., 2002), as well as with symptoms of Axis II pathology frequently comorbid with BPD. In addition, if the IM–B provides a specific measure of BPD, we expected correlations between IM–B scores and indexes of non-BPD psychopathology to be as small as or smaller than correlations between IM–B scores and SCID–II symptoms of BPD.

We also predicted moderate-sized positive correlations between IM–B scores and indexes of suicidal and parasuicidal behavior and ideation. To assess the incremental validity of IM–B scores, we examined whether IM–B scores would be uniquely related to criteria for maladaptive interpersonal behavior and self-injurious behavior to predict these important clinically relevant criteria. Although incremental validity is not necessary to demonstrate the utility of a screening measure, it is a component of test validation. Finally, to address discriminant validity, we examined relations between IM–B scores and demographic variables not usually considered characteristic of BPD. We expected that IM–B scores would be uncorrelated with most demographic variables such as age, ethnicity, and education.

METHOD

Participants

Participants were 276 adults (94 men and 180 women; 2 participants did not report data for sex). All participants were recruited through newspaper advertisements and flyers in the community and at Duke University Medical Center, and all received $10 per hour for participation. To increase recruitment of individuals with BPD symptoms, newspaper advertisements and flyers were designed to recruit individuals who had been diagnosed with BPD or who had recently attempted to harm themselves physically. Prospective participants were screened via telephone with SCID–I modules (First, Spitzer, Gibbon, & Williams, 1995) to exclude individuals with current mania or a history of psychosis. The mean age was 40.6 years (SD = 15.4). The ethnic composition of the sample was 71.4% European American, 15.9% African American, 5.8% Asian, 3.3% Hispanic or Latino, and 3.6% other or missing. Among the 93.5% of the sample with SCID assessments, 14.9% (n = 41; 9 male, 32 female) met full diagnostic criteria for BPD according to SCID–II (First et al., 1997) interviews. The number of participants included in analyses differs from measure to measure because some measures were added to the project at different times and were administered to only a subset of the participants.

The Interpersonal Measure of Borderline Personality Disorder

The procedure used to develop the IM–B was similar to that used to develop interpersonal measures of other personality disorders (see Kosson et al., 2008; Kosson et al., 1997, for additional details). In brief, based on clinical experiences of the authors, a review of relevant theoretical and empirical literature (e.g., Linehan, 1993; Livesley, 1986), and suggestions by BPD researchers and clinicians attending a preliminary presentation of this approach at the National Institute of Mental Health New Directions in BPD conference (Kosson & Walsh, 2002), 21 items were generated to provide a preliminary list of interpersonal indicators of BPD (see Table 1). Relevant behaviors and processes were operationalized at an intermediate level of specificity, were written so that behaviors would not be bound too tightly to specific stimuli or responses, and were designed to permit scoring based on objective observations of nonverbal behavior (i.e., to require no inferences). Examples were provided for some items to illustrate the kinds of behavior that should be considered generally consistent with an item. For example, for the item “Displays negative affect for reason unknown to interviewer,” we added “makes faces/smirks/rolls eyes” as possible examples.

The IM–B was designed to be rated based on observations drawn from any substantial interaction. In this study, IM–B items were rated following completion of a semistructured diagnostic interview (the SCID–II), completion of a clinical rating scale (the Hamilton Depression Rating Scale), and after completion of several laboratory-based tasks assessing emotional functioning (see Lynch et al., 2006). Raters were provided with a brief overview of the IM approach to assessing personality disorders (by Kosson and Rosenthal). It should be noted that, because IM–B items focus on actual interpersonal behaviors, information about DSM–IV symptoms of BPD or other disorders are not directly relevant to ratings for IM–B items. Rather, for each item, raters judged the extent to which each participant exhibited the targeted behavior. Ratings ranged from 0 (not at all) if the behavior or interpersonal exchange was not exhibited, 1 (somewhat) if the behavior or exchange was evidenced to a minor degree, 2 (very well) if the behavior or exchange was relatively typical of the interaction, or 3 (perfectly) if the behavior or exchange was extremely characteristic of the interpersonal interaction.

Two independent raters viewed videotapes of approximately 10% (n = 26) of the videotaped interviews and completed the IM–B based on these interviews. These interviews
were randomly selected with the constraint that at least 25% of the interviews included participants meeting DSM–IV diagnostic criteria for BPD according to SCID diagnoses. Total IM–B scores were based on a simple summation of the item scores following item analyses. The requirement that each item correlate .30 (Nunnally, 1978) with the corrected item–total correlation. Copies of the IM–B are available on request from the first author.

Table 1.—Interpersonal Measure of Borderline Personality Disorder (IM–B) means and standard deviations.

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>r_{it}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Expresses unusual/extreme compliments toward interviewer/observer</td>
<td>0.17</td>
<td>0.45</td>
<td>0.46</td>
</tr>
<tr>
<td>2. Extreme positive reactions (other than compliments) to what is said or done</td>
<td>0.23</td>
<td>0.48</td>
<td>0.37</td>
</tr>
<tr>
<td>3. Expressions of intense affectation</td>
<td>0.20</td>
<td>0.47</td>
<td>0.48</td>
</tr>
<tr>
<td>4. Emphasizes need for immediate or urgent help</td>
<td>0.34</td>
<td>0.71</td>
<td>0.61</td>
</tr>
<tr>
<td>5. Angry outbursts or accusations</td>
<td>0.19</td>
<td>0.49</td>
<td>0.61</td>
</tr>
<tr>
<td>6. Devaluation of interviewer or assessment</td>
<td>Deleted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Extreme negative evaluations of someone (other than interviewer)</td>
<td>0.39</td>
<td>0.75</td>
<td>0.58</td>
</tr>
<tr>
<td>8. Excessive negative reactivity</td>
<td>0.42</td>
<td>0.77</td>
<td>0.67</td>
</tr>
<tr>
<td>9. Displays negative affect for reason unknown to interviewer</td>
<td>0.22</td>
<td>0.49</td>
<td>0.37</td>
</tr>
<tr>
<td>10. Disagrees with interviewer</td>
<td>Deleted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Fluctuations between formal and informal language</td>
<td>0.20</td>
<td>0.50</td>
<td>0.59</td>
</tr>
<tr>
<td>12. Emotional lability</td>
<td>0.27</td>
<td>0.57</td>
<td>0.74</td>
</tr>
<tr>
<td>13. Rambling, tangential speech</td>
<td>0.36</td>
<td>0.71</td>
<td>0.62</td>
</tr>
<tr>
<td>14. Expressed interest in feedback appears to be superficial/disingenuous</td>
<td>Deleted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Inattention to interviewer other than during feedback</td>
<td>0.12</td>
<td>0.39</td>
<td>0.32</td>
</tr>
<tr>
<td>16. Difficulty describing self (given open-ended question about self)</td>
<td>0.33</td>
<td>0.64</td>
<td>0.41</td>
</tr>
<tr>
<td>17. Becomes nonresponsive</td>
<td>Deleted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Provides or requests excessive personal information</td>
<td>0.29</td>
<td>0.70</td>
<td>0.57</td>
</tr>
<tr>
<td>19. Indicates one’s pain is more acute/unbearable than that of others</td>
<td>0.26</td>
<td>0.63</td>
<td>0.60</td>
</tr>
<tr>
<td>20. Attempts to avoid or delay decision or responsibility</td>
<td>0.21</td>
<td>0.57</td>
<td>0.55</td>
</tr>
<tr>
<td>21. Excessive alliance-seeking</td>
<td>0.18</td>
<td>0.47</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Note. N = 261. r_{it}. Corrected item–total correlation. Copies of the IM–B are available on request from the first author.

Personality Assessment Inventory Borderline Personality Scale. The Personality Assessment Inventory Borderline Personality Scale (PAI–BOR; Morey, 1991) is a 24-item self-report measure of BPD features that has been used in previous studies of BPD (Trull, Useda, Conforti, & Doan, 1997). Each item is scored on a 4-point scale ranging from 0 (false) to 3 (very true). PAI–BOR scores demonstrate good psychometric properties in clinical and nonclinical samples (Kurtz & Morey, 2001; Kurtz, Morey, & Tomarken, 1993; Trull, 1995). Scores in this study exhibited acceptable internal consistency (N = 261, a = .72).

Measures of Constructs Related to the Emotional, Interpersonal, and Behavioral Symptoms of Borderline Personality Disorder

Affect Intensity Measure–Negative Intensity Scale and Negative Reactivity Scale. The Affect Intensity Measure–Negative Intensity Scale (AIM–NI; Bryant, Yarnold, & Grimm, 1996; Larsen & Diener, 1987) is a measure of the chronic tendency to have intense experiences of negative emotions. The Affect Intensity Measure–Negative Reactivity Scale (AIM–NR) is a measure used to assess the temperamental tendency to become easily disturbed by emotional events. Bryant et al. (1996) generated the AIM–NI (six items) and the AIM–NR (six items) from the AIM (Larsen & Diener, 1987). On both scales, respondents indicate how they react to specific events using a 6-point Likert-type scale ranging from 1 (never) to 6 (always). Bryant et al. (1996) reported acceptable internal consistency for both AIM–NI and AIM–NR scores (α = .70 and .66, respectively). In this sample, internal consistencies were acceptable (N = 261–262; α = .81, .72, respectively). Whereas AIM–NI scores were negatively correlated with perspective-taking and empathic concern scores, AIM–NR scores were positively related to personal distress, perspective taking, and empathic concern. Both AIM–NI and AIM–NR scores
correlate positively with BPD features (Cheavens et al., 2005) and diagnostic symptoms (Rosenthal et al., 2005).

**Affective Lability Scale.** The Affective Lability Scale (ALS; Harvey, Greenberg, & Serper, 1989) is a 54-item measure of self-reported shifts in distinct affective states. The six subscales assess shifts from baseline to anxiety, anger, depression, and elation, as well as changes between emotional states. Only ALS total scores were used in this study. ALS scores have demonstrated good internal consistency and stability (Harvey et al., 1989). In this study, scores were internally consistent ($N = 63$, $\alpha = .98$). In addition, Koenigsberg et al. (2001) reported significant positive correlations between the DSM–III–R affective instability criterion and ALS scores. Items are rated on a 4-point scale ranging from very undescriptive to very descriptive, with lower ALS scores denoting greater affective lability. For this study, ALS scores were multiplied by $-1$ so that higher scores would indicate greater affective lability.

**Barratt Impulsiveness Scale–Version 11.** The Barratt Impulsiveness Scale–Version 11 (BIS–11; Patton, Stanford, & Barratt, 1995) is a widely used 30-item self-report impulsivity scale in which each item is answered on a 4-point Likert scale ranging from 1 (rarely/never) to 4 (almost always). BIS–11 scores are internally consistent in clinical and nonclinical samples (Patton et al., 1995) and correlate moderately with impulsive, risk-taking behavior (Stanford, Greve, Boudreaux, Mathias, & Brumbelow, 1996). The internal consistency of BIS scores was excellent in this sample ($N = 72$, $\alpha = .90$).

**Measures Related to Emotion Regulation.**

**Ambivalence over Emotional Expressiveness Questionnaire.** The Ambivalence over Emotional Expressiveness Questionnaire (AEQ; King & Emmons, 1990) is a 28-item self-report scale that assesses active attempts to inhibit emotional experience and expression, as well as rumination regarding unwanted expression of emotion. Items are rated on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). King and Emmons (1990) reported high internal consistency and 6-week stability and positive correlations with scores on the Raulin Intense Ambivalence Scale. Scores in this study were internally consistent ($N = 237$, $\alpha = .95$).

**White Bear Suppression Inventory.** The White Bear Suppression Inventory (WBSI; Wegner & Zanakos, 1994) is a 15-item scale assessing the tendency to deliberately attempt to not think about unpleasant thoughts. Each item is rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores reflecting a greater tendency to attempt to suppress unpleasant thoughts. Wegner and Zanakos (1994) reported high internal consistency and stability ($\alpha = .89$; 12-week test–retest $r = .80$), and positive correlations with depression and anxiety symptoms. Scores were internally consistent in this sample ($N = 262$, $\alpha = .94$).

**Thought Control Questionnaire.** The Thought Control Questionnaire (TCQ; Wells & Davies, 1994) is a 30-item self-report instrument designed to assess the frequency (1 = never; 4 = always) with which each of five strategies is used to control the intensity or frequency of aversive cognitions. The five subscale scores (with each subscale consisting of six items) have demonstrated adequate internal consistency in previous studies ($\alpha = .64–.83$). Scores on the Self-Punishment and Worry subscales are positively correlated with psychopathology and BPD scores, whereas scores on the Distraction, Social Control, and Reappraisal subscales correlate negatively with psychopathology (Amir, Cashman, & Foa, 1997; M. Reynolds & Wells, 1999; Rosenthal et al., 2006; Warda & Bryant, 1998). Rosenthal et al. (2006) reported that individuals with BPD reported using self-punishment as a thought control strategy significantly more than healthy controls and clinical comparison groups. In this study, internal consistency of scores was acceptable for all five subscales ($N_s = 258–260$; $\alpha_s = .74–.78$).

**Additional Measures Related to Psychopathology Other Than Borderline Personality Disorder.**

**Hamilton Depression Rating Scale.** The Hamilton Depression Rating Scale (HAM–D; Hamilton, 1960) is a 21-item interview measuring the presence and severity of depressive symptoms. Each item is scored on a 2- or 4-point Likert-type scale (reflecting the presence or absence or severity of each symptom). The HAM–D is one of the most widely used instruments for assessing severity of major depressive disorder symptoms; HAM–D scores have demonstrated excellent validity and interrater agreement (Miller, Bishop, Norman, & Maddrever, 1985). In this study, interviews were administered via telephone at screening by a trained research assistant under the supervision of the third author. Scores were internally consistent ($N = 236$, $\alpha = .85$).

**Center for Epidemiologic Studies–Depression Scale.** The Center for Epidemiologic Studies–Depression Scale (CES–D; Radloff, 1977) is a 20-item self-report scale designed to assess presence and frequency of depressive symptoms in the past week. Items are rated on a 4-point Likert-type scale ranging from 0 (rarely or never) to 3 (most or all of the time [5–7 days in past week]). CES–D scores have demonstrated high internal consistency in general and clinical samples ($\alpha = .85–.90$), as well as adequate test–retest reliability (Hann, Winter, & Jacobsen, 1999; Radloff, 1977). Internal consistency of CES–D scores was acceptable ($N = 79$, $\alpha = .76$).

**Beck Hopelessness Scale.** The Beck Hopelessness Scale (BHS; Beck, Weissman, Lester, & Trexler, 1974) is a 20-item measure of hopelessness, widely used in the study of depression. It was designed to assess three broad components of hopelessness: concerns about the future, loss of motivation, and dysfunctional expectations. Items are scored as either true or false. Scores on the BHS have good internal consistency in hospitalized patients with a recent suicide attempt and correlate strongly with clinical ratings of hopelessness in patient samples (Beck et al., 1974). Scores in this study were internally consistent ($N = 245$, $\alpha = .94$).

**Posttraumatic Stress Diagnostic Scale.** The Posttraumatic Stress Diagnostic Scale (PDS; Foa, 1995) is a self-report scale designed to measure severity of PTSD symptoms using DSM–IV criteria. Its three subscales assess the reexperiencing, avoidance, and arousal clusters of PTSD symptoms. PDS scores exhibit good test–retest reliability for PTSD diagnoses.
(\(\kappa = .74\)) and for a PTSD Symptom Severity Score \((r = .83)\), and symptom severity scores were internally consistent \((\alpha = .92)\). In this study, scores for symptom severity and negative impact on functioning were used. The severity score was the sum of the item scores assessing severity of each of the 17 symptoms examined on a 4-point Likert scale from 0 (not at all or only one time) to 3 (five or more times per week or almost always). The impact score was the sum of scores on eight dichotomous items assessing whether PTSD symptoms interfered with functioning in eight life domains. Scores were internally consistent \((N = 54, \alpha = .95)\).

**Additional Measures of Clinical Relevance**

**Modified Inventory of Interpersonal Problems.** The Modified Inventory of Interpersonal Problems (IIP–Mod; Pilkonis, Kim, Proietti, & Barkham, 1996). The IIP–Mod is a 47-item modification of the 127-item Inventory for Interpersonal Problems (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988) and was developed to screen for personality disorders, particularly Cluster B and Cluster C disorders. The IIP–Mod consists of five subscales addressing interpersonal sensitivity, interpersonal ambivalence, aggression, need for social approval, and lack of sociability. Each subscale is scored on a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely). The interpersonal sensitivity (IIP–IS) and aggression (IIP–Ag) subscale scores have been shown to be related to central features of BPD in nonclinical samples (Lejuez et al., 2003). The number of items on each subscale range from 7 (for the IIP–Ag subscale) to 11 (for the IIP–IS subscale). On all subscales, higher scores reflect greater interpersonal problems. Pilkonis et al. (1996) reported adequate internal consistency for IIP subscale scores \((\alpha = .83–.90)\); in this sample, scores were internally consistent for all IIP subscales \((Ns = 257–262; \alpha = .86–.92)\).

**Adult Suicidal Ideation Questionnaire.** The Adult Suicidal Ideation Questionnaire (ASIQ; W. M. Reynolds, 1991) is a 25-item self-report measure that asks respondents to rate the frequency of certain thoughts about suicide (e.g., “I thought it would be better if I were not alive”). Items are rated on a 7-point Likert-type scale ranging from 0 (I never had this thought) to 6 (almost every day). Scores on the ASIQ evidence high internal consistency (in this sample, \(Ns = 257–262, \alpha = .86–.90\) and test–retest reliability and correlate with measures of depression, hopelessness, and self-esteem (W. M. Reynolds, 1991).

**Additional questions related to suicidal ideation and behavior.** For this study, questions were added to the demographic questionnaire to obtain more information about history of self-injurious behavior and suicidal ideation. These consisted of dichotomous questions assessing presence or absence of both recent and lifetime suicidal ideation and behavior.

**Demographic Measures**

As noted earlier, we also measured age in years, ethnicity, and education. Education was operationalized as the number of years of school completed.

**RESULTS**

The 17 items in the final IM–B and their corrected correlations with total scores are listed in Table 1. The descriptive statistics for these items are quite similar to those previously obtained for items on interpersonal measures of other kinds of personality pathology (see Kosson et al., 2008; Kosson et al., on a 4-point Likert scale from not at all to severely. BAI scores show good internal consistency in outpatient psychiatric samples \((\alpha = .85–.93; \text{Beck et al., 1988})\) and correlate more highly with anxiety than depression scores. In this sample, BAI scores were internally consistent \((N = 78, \alpha = .95)\).
Consistent with studies of the IM–P and the IM–SZ, these statistics demonstrate that most individuals do not exhibit the characteristics indicated for IM–B items. However, Table 1 also shows that there is sufficient variability in the display of these features that it is possible to examine relationships between IM–B total scores and scores on external criteria. The mean total score on the IM–B was 4.36 (SD = 5.94, median = 2, range = 0–34). Both IM–B scores and the number of DSM–IV BPD symptoms present exhibited significant skewness (z = 13.36, 9.07; both ps < .001, respectively). A logarithmic transformation of IM–B scores and an inverse transformation of SCID–II symptoms (1 – 1/number of SCID–II BPD symptoms + 1) to avoid altering the sign of obtained correlations) reduced skewness substantially (z = 2.10, –1.11; both ps > .01). Transformed scores were also used for indexes of other personality disorders. Logarithmic transformation eliminated significant skewness for obsessive– compulsive personality disorder, and inverse transformations eliminated skewness for paranoid and avoidant personality disorder, respectively. Where these transformations were not sufficient to reduce skewness to nonsignificant levels, we examined score distributions for extreme scores (greater than 3 SD from sample means) and recoded these extreme scores to similar but less extreme scores within 3 SD of means for extreme scores as recommended by Tabachnick and Fidell (2006; see also Osborne & Overbay, 2004) and then examined transformations. However, even this recoding and truncation procedure and the use of inverse transformations did not bring skewness entirely within acceptable limits for most personality disorder scores (skewness statistics = 5.63, 5.43, 10.39, 6.09, 22.96, and 6.91 for schizotypal, schizoid, histrionic, narcissistic, antisocial, and dependent personality disorder scores). The pattern of statistical significance was the same for transformed and untransformed scores unless otherwise noted. Correlations between untransformed variable and transformed variable scores were high (for IM–B scores, r = .89; for SCID–II BPD symptoms, r = .87). Due to the large number of relationships examined, an alpha level of .01 was used to evaluate statistical significance of bivariate associations.

Reliability

Item analyses based on interviewer ratings revealed high internal consistency for the IM–B scale, with coefficient alpha for interviewer ratings equal to .89. Corrected item-to-total correlations ranged from .32 to .73, and a mean interitem correlation of .32 suggests homogeneity of the IM–B (Scott, 1960). ICCs were computed with a one-way random effects model to obtain an average intraclass r as a measure of agreement between raters. Based on 26 participants whose videotaped interviews were rated by two independent raters, ICC = .83, indicating acceptable interrater agreement.

Convergent Validity Analyses

Variables were screened for normality where appropriate.

Relationships with measures of borderline personality disorder. Correlations between scores on the IM–B and on other measures of BPD and related constructs are presented in Table 2. As predicted, IM–B scores correlated highly with SCID–II BPD symptoms as well as with dichotomous BPD diagnoses. Although only 75 participants had also received the PAI, PAI BPD scale scores also correlated highly with IM–B scores. These correlations indicate there is substantial overlap between the IM–B and more traditional measures of BPD (26%–48% shared variance) but also substantial residual variance.

Relationships with measures related to specific features of borderline personality disorder. Consistent with predictions, IM–B scores correlated with scores on measures of
affective dysfunction and behavioral impairment. As shown in Table 2, within the domain of emotional function, IM–B scores were associated with both negative affective intensity and affective lability. Within the realm of behavioral function, IM–B scores correlated positively with BIS scores (see Table 2). Finally, relationships between IM–B scores and indexes of emotion regulation were also consistent with predictions. As shown in Table 2, higher IM–B scores were associated with maladaptive thought suppression, ambivalence about expressing emotion, and problematic ways of coping with unpleasant cognitions. The moderate to large correlations between IM–B scores and indexes of affective reactivity, impulsive behavior, and maladaptive emotion regulation suggest the IM–B is able to identify a broad spectrum of BPD pathology.

**Relationships with measures of psychopathology other than borderline personality disorder.** Because BPD is often comorbid with other psychiatric disorders (Skodol, Gunderson, Pfohl, et al., 2002), we examined relationships between IM–B scores and symptoms of other personality disorders, depression (HAM–D, CES–D, BHS), anxiety (BAI), and severity and impact of PTSD symptoms. Although associations with measures of syndromes commonly cooccurring with BPD were expected, evidence that IM–B scores correlated more highly with measures of other disorders than with measures of BPD itself would suggest the IM–B is not very specific to BPD. Therefore, we examined both correlations between IM–B scores and indexes of disorders commonly comorbid with BPD and also the relative magnitude of correlations between IM–B scores and features of BPD versus features of other related disorders. Examination of Table 3 indicates that, as expected, IM–B scores correlated strongly with symptoms of non-BPD psychopathology commonly comorbid with BPD. Z tests comparing the magnitude of correlations revealed that none of the correlations between IM–B scores and SCID–II indexes of other personality disorders were as large as the correlation between IM–B scores and the number of SCID–II BPD symptoms (Meng, Rosenthal, & Rubin, 1992). Nevertheless, effect sizes were large for relationships between IM–B scores and indexes of schizotypal personality disorder, paranoid personality disorder, and histrionic personality disorder, as well as depression and PTSD. Effect sizes were in the small-to-medium range for symptoms of other personality disorders and anxiety (see Table 3).  

1A t test indicated that the subset of participants that completed the BAI (n = 101) and the subset of participants that completed the PDS and PSS (n = 52) were younger on average than the subset that did not complete these measures. t(250.84) = 2.14, p = .03, t(272) = 2.29, p = .02, respectively. (The degrees of freedom for the BAI analysis were corrected due to a significant Levene test.) Although these subsets of participants did not differ in the proportion of males and females, the proportion of African Americans versus European Americans, or in years of education completed, and the effect sizes for these age differences were relatively small, d = .25, d = .35, these differences raise the possibility that the age of participants might have influenced relationships involving these measures. Consequently, we computed partial correlations between IM–B ratings and scores on these variables, controlling for age. The resulting partial correlations were very similar to the zero-order correlations reported in Table 3: for BAI = partial r = .45; for PDS Impact score, partial r = .56; for PDS Severity score, partial r = .56; for PSS total score, partial r = .45, all ps < .001.

**Relationships with clinically relevant indexes.** Regressions were conducted to examine relationships between IM–B scores and two categories of clinically relevant indexes: interpersonal problems and self-injurious behavior and ideation. In these regressions, IM–B scores served as predictor variables, and indexes of interpersonal behavior and suicidality served as criteria. Logistic regressions examined relationships with dichotomous indexes; multiple regressions examined relationships with continuous variables. Within the domain of interpersonal functioning, IM–B scores correlated positively with scores on all five IIP scales, including the measures of interpersonal sensitivity and aggression commonly associated with BPD pathology (see Table 4). Finally, as noted in Table 4, IM–B scores were consistently related to indexes of suicidal thoughts, parasuicidal behavior, and suicide attempts.

**Relationships with measures of adaptive emotion regulation.** As noted earlier, to the extent that BPD is associated with maladaptive coping strategies, IM–B scores were expected to be uncorrelated or negatively correlated with measures of adaptive coping. Consistent with expectations, IM–B scores were not correlated with scores on the TCQ Reappraisal or Social Control scales, rs = −.02 and −.11. Untransformed IM–B scores were also not significantly correlated with TCQ Distraction scores at the alpha level of .01, r = −.14, p < .05, but this correlation achieved significance for transformed scores, r = −.19, p < .01. This correlation is consistent with the pattern that higher IM–B scores were generally associated with poorer emotion regulation.

**Relationships with demographic indexes.** As noted earlier, scores on demographic variables were not expected to correlate with measures of BPD. None of the correlations between IM–B scores and scores on demographic variables approached significance, rs = −.04 (participant sex), .01 (age), .04 (ethnicity) and −.10 (education).

**Incremental validity of IM–B scores.** To examine whether IM–B scores correlated uniquely with clinically relevant indexes, we also conducted regressions in which IM–B scores were entered as predictors after first entering a modified measure of SCID–II BPD symptoms (omitting symptoms related to suicidality). These analyses examined the statistical prediction of significant interpersonal problems and self-injurious behavior and ideation. IM–B scores continued to predict IIP scores indicating problems with aggressive behavior, interpersonal sensitivity, and interpersonal ambivalence (see Table 4). Similarly, IM–B scores displayed unique associations with all indexes of suicidal ideation and parasuicidal behavior examined.

**DISCUSSION**

The pattern of findings suggests that the IM–B has promise as a measure of the interpersonal features associated with BPD. Consistent with ratings on other interpersonal measures of personality disorder syndromes, scores on the IM–B were relatively low, on average, even in a sample in which personality pathology was common. The scores demonstrated good interrater agreement and were relatively internally consistent. Moreover, IM–B scores exhibited the expected pattern of
associations with a wide variety of indexes associated with BPD and were not associated with clinical criteria distinct from BPD.

With regard to the reliability of IM–B scores, the internal consistency of IM–B scores was similar to that previously reported for interpersonal measures of schizoid personality disorder and psychopathy (Kosson et al., 2008; Kosson et al., 1997). These findings provide further evidence that it is possible to identify coherent indicators of personality pathology if researchers and clinicians are queried about the interpersonal manifestations of personality disorders. The acceptable rater agreement for IM–B scores is also encouraging; following brief training, individuals exhibited relatively good agreement on the interpersonal indicators that comprise the IM–B.

Regarding the construct validity of IM–B scores, a review of Tables 2, 3, and 4 shows that, in general, the pattern of correlations for IM–B scores was quite consistent with expectations. We observed strong correlations with scores on other BPD measures, and moderate correlations with indexes of affective intensity and lability and indexes of maladaptive emotion regulation. IM–B scores also correlated highly with symptoms of Axis I disorders commonly found in individuals with BPD. In addition, IM–B scores accounted for substantial variance in indexes of suicidality, interpersonal sensitivity, and aggression. The pattern of correlations with symptoms of other personality disorder diagnoses was also consistent with research indicating that BPD is often comorbid with several other Axis II diagnoses (Grant et al., 2008; Lentz, Robinson, & Bolton, 2010). Moreover, correlations between IM–B ratings and indexes of non-BPD psychopathology were consistently smaller than the correlation between IM–B ratings and SCID–II ratings of BPD pathology suggesting that IM–B ratings are more closely associated with the symptoms of BPD than with the symptoms of distinct but often comorbid disorders.

Our results also indicated that IM–B scores also provided incremental validity in the cross-sectional (i.e., statistical) prediction of some important clinically relevant indexes. After controlling for SCID–II symptoms, IM–B scores were uniquely related to interpersonal dysfunction and suicidal ideation and behavior, two potentially important domains associated with BPD. These results suggest that, pending further validation, the IM–B might be a valuable adjunct to interview-based assessments in contexts where factors related to self-harm and problematic interpersonal behavior, including aggression, are important.

Because current findings appear to complement previous findings obtained with the IM–P and the IM–SZ, these studies, taken together, appear to have more general implications for the utility of interpersonal assessments in the study of personality disorders. Across relatively distinct independent samples, these studies demonstrate that specific kinds of interpersonal behaviors identified by researchers and clinicians can provide reliable and valid indexes of three distinct personality disorder syndromes. Although each study is characterized by limitations, the evidence that interpersonal measures of personality pathology can be straightforwardly developed and validated and that these measures provide useful supplements to more traditional interview and self-report assessment approaches suggests that further efforts to develop and validate interpersonal assessment methods are likely to be useful for assessing several additional personality disorders. We have argued that these measures are likely to be especially useful in contexts that permit semistructured or standardized interactions between clinicians or researchers and patients or clients where there is insufficient staff time or training to conduct well-validated, interview-based diagnostic procedures. Moreover, because scores on all three of these interpersonal instruments for assessing personality disorders have correlated with clinically relevant criteria even after controlling for scores on better validated interview-based measures of the specific personality disorder examined, these studies also suggest that behavioral observations of interpersonal behavior can contribute to the power of assessments even when interview methods are available.
In light of proposals by the Personality and Personality Disorders Workgroup for the *DSM-5* that personality disorders are characterized by impairments in self and in interpersonal functioning (American Psychiatric Association, 2013), these studies suggest that the IM approach to personality disorders might be particularly helpful for identifying and understanding impaired and anomalous interpersonal behavior in individuals with personality disorders. Because all assessment methods have strengths and weaknesses (e.g., Ganellen, 2007; Trull, 1993), these studies do not lead us to argue that IMs are better than other kinds of measures. However, consistent with recent calls for process-focused assessment methods (Bornstein, 2011), it could be argued that interpersonal interactions provide contexts that increase the likelihood that individuals with symptoms of personality disorders will display specific forms of pathological behavior relative to contexts that are less interpersonal (e.g., the completion of self-report questionnaires). If so, then it remains important to examine whether some specific kinds and durations of interpersonal interactions are especially effective for assessing interpersonal features of PDs. Further, that these measures capture behavior in a specific context and at a specific time raises the possibility that such measures might provide an assessment approach that is especially sensitive to changes in interpersonal pathology over time. However, an equally important limitation of our current knowledge is that none of the IM studies to date have addressed the stability of interpersonal pathology as assessed by IMs; until such studies are carried out, it is possible that interpersonal behavior of people with personality disorders could change from one interview context to another even without any underlying change in the extent of pathology. Consideration of prior studies also suggests another important direction for future research: Given a sample of individuals with diverse forms of pathology, we do not yet know whether each of the IMs can demonstrate unique correlates of specific personality disorders; pending such studies, it remains possible that the relationships identified in this study and in prior IM studies reflect common variance related to interpersonal deviance rather than unique correlates of scores on each IM.

Several specific limitations of this study must also be emphasized. First, these findings are based on a single sample of individuals and were obtained in a cross-sectional research context. Additional replications of these relationships in independent samples and prospective studies that evaluate the predictive validity of the IM–B are necessary to firmly establish the utility of IM–B scores. In this context, it is encouraging that recent studies using other interpersonal measures (e.g., IM–P, IM–SZ) have demonstrated that such measures can contribute to the assessment of personality pathology in independent samples.

In addition, the IM–B scores in this study were not based exclusively on a single interpersonal interaction: In almost all cases, the experimenters who conducted SCID interviews also administered questionnaires and experimental measures to participants. Although there is evidence that the IM–P and the IM–SZ can be rated validly based on a single substantial interaction, it is important to evaluate the validity of IM–B scores based on more brief interactions to more fully delineate the parameters of interactions that are sufficient for completing the IM–B and other IM measures.

Another important limitation of this study is related to the use of the same rater to complete both the IM–B and the SCID assessments, which raises the possibility that the correlations between these two measures might have been artificially inflated. We have argued that one of the advantages of the IM approach to assessment is the focus on observable behavior rather than the content of answers to specific questions, which provides sufficient independence from more traditional content-based interview assessments related to specific diagnostic criteria to allow for meaningful, nonredundant examination of associations between these indexes (as recommended by Lazarus et al., 2014). Our confidence in the validity of the observed contribution of the IM–B to the characterization of BPD-relevant pathology is bolstered by the good agreement between those IM–B ratings completed concurrently with more comprehensive assessments and those that were completed based on videotaped subsets of the assessed interactions. Indeed, the raters in the videotape condition had relatively little knowledge of BPD pathology and were not familiar with the SCID–II; as such, their IM–B ratings were relatively invulnerable to contamination by expectations regarding the BPD status of participants. In addition, it appears unlikely that answers to SCID–II responses could have influenced correlations between IM–B ratings and scores on self-report questionnaires (which were not examined by the individuals who made IM–B ratings) and cannot account for the utility of IM–B ratings in predicting suicidal ideation or behavior and interpersonal problems even after controlling for SCID–II ratings. Nonetheless, future research that examines the predictive power of the IM–B using raters completely blind to information related to the BPD status of targets is critical to future studies examining the construct validity of the IM–B. Even so, we believe that the approach of combining the IM–B with a more formal assessment is ecologically valid, as the IM–B was not designed as a substitute for in-depth clinical assessment and diagnosis but to provide a relatively easy-to-use behavioral rating scale of BPD psychopathology for situations, such as assessment-focused interviews, in which it is possible to observe a substantial interpersonal interaction with an individual.

In summary, these findings suggest that the IM–B might have substantial utility as an interpersonal measure of BPD-relevant pathology that can be used to screen for BPD pathology and that can provide guidance about the value of a more in-depth BPD assessment. In addition, if these results are replicated in independent samples, the IM–B might have utility in identifying individuals at heightened risk for self-harm or aggression for whom more detailed assessments of violence and self-harm are warranted.

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REFERENCES


