BRIEF REPORT

The Psychometric Properties of the Personality Assessment Inventory–Adolescent's Borderline Features Scale Across Two High-Risk Samples

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The present study sought to assess the performance of the Borderline Features (BOR) Scale of the adolescent version of the Personality Assessment Inventory (Morey, 2007b) in 2 high-risk samples: inpatient and justice-involved adolescents. This study is the first to evaluate the BOR scale in high-risk adolescent samples, outside the initial standardization studies. Across both samples ($N_{Clinical}$ = 327, $N_{Forensic}$ = 151), results indicated good internal consistency. Confirmatory factor analysis indicated poor fit of the 4-factor structure proposed by the measure's authors. Convergent validity and receiver-operating characteristics analyses, conducted in the clinical sample, indicated that the adolescent version of the Personality Assessment Inventory BOR scale had good diagnostic accuracy for predicting a borderline personality disorder diagnosis (via structured interview). Findings suggest that the BOR scale has adequate internal consistency, convergent validity, and clinical utility, although areas for future measure evaluation (including factor structure) remain. Still, the BOR scale may partially address the current hesitation to assess borderline personality disorder features in high-risk youth because it is embedded within a broadband psychopathology measure.

Public Significance Statement
Borderline personality disorder (BPD) is an impairing psychological disorder that commonly begins to emerge during adolescence, but the assessment of BPD in adolescents is uncommon and psychometric data are limited. The current study reported on the psychometric properties of the adolescent version of the Personality Assessment Inventory for assessing BPD among 2 high-risk groups: inpatient and justice-involved adolescents.

Borderline personality disorder (BPD) is a psychological disorder characterized by impulsivity and instability of affect, interpersonal relationships, and self-image (American Psychiatric Association, 2013). Strong arguments for the early identification of BPD

were recently articulated by Chanen, Sharp, & Hoffman & the Global Alliance for Prevention and Early Intervention for Borderline Personality Disorder, 2017, citing high levels of functional impairment, health care use, suicide risk, and comorbidity as well as data supporting early malleability of BPD features. It is now well known that BPD features often emerge during youth and persist into adulthood (Chanen, 2015; Venta, Herzhoff, Cohen, & Sharp, 2014). Moreover, BPD features among adolescents undergoing psychiatric care, in particular, are associated with suicide (Venta, Ross, Schatte, & Sharp, 2012); comorbid psychopathologies (Chanen, Sharp, & Hoffman & the Global Alliance for Prevention and Early Intervention for Borderline Personality Disorder, 2017); and unique treatment needs (Biskin, 2013). Likewise, BPD is related to anger and impulsivity (Cantone, Sperandeo, & Maldonato, 2012) as well as suicide, psychopathology, and inter-

personal difficulties (Taylor, James, Reeves, & Kistner, 2009) in justice-involved youth.

The call for early assessment of BPD has produced an explosion of new assessment tools and related research showing that the BPD construct is valid in adolescence (Sharp & Fonagy, 2015). Indeed, the Childhood Interview for BPD was developed (Zanarini, 2003) and underwent a full psychometric evaluation (Sharp et al., 2012); the Borderline Personality features subscale for children was published (Crick, Murray-Close, & Woods, 2005); the McLean Screening Instrument for BPD (Zanarini et al., 2003) was published and evaluated among adolescents (Noblin, Venta, & Sharp, 2014); and an adolescent version of the Personality Assessment Inventory (PAI-A; Morey, 2007b) including a Borderline Features (BOR) Scale was developed. Still, two current challenges remain. First, most existing psychometric studies of BPD-specific measures have focused on internal consistency and concurrent validity, necessitating a second phase of deeper investigation. Second, the assessment of BPD features in clinical and forensic settings remains uncommon due to lingering hesitation to diagnose personality disorders among adolescents (Chanen, 2015) and the absence of BPD scales on commonly administered broadband symptom measures (e.g., Behavior Assessment System for Children [Reynolds, 2004]; Youth Self-Report and Child Behavior Checklist [Achenbach & Rescorla, 2001]). Whereas the Youth Self-Report and Child Behavior Checklist Dysregulation Profile (i.e., elevated Anxious/Depressed, Aggressive Behavior, and Attention Problems scales) has been conceptualized as a broad metric of self-regulation (Althoff, Ayer, Rettew, & Hudziak, 2012) and has been linked to Cluster B features, it does so nonspecifically, identifying dysregulation broadly rather than childhood manifestations of BPD specifically (Althoff et al., 2012; De Caluwé, Decuyper, & De Clercq, 2013). Although this position is consistent with a dimensional approach to personality pathology, it potentially neglects Criterion A features of personality pathology as outlined in *Diagnostic and Statistical Manual of Mental Disorders* (DSM)-V, Section III.

The present study sought to address these challenges by conducting an in-depth psychometric evaluation of the PAI-A BOR scale. We suggest that the BOR scale may partially address the current hesitation to assess BPD features in high-risk youth because it is embedded within a broadband psychopathology and personality measure. The adult version of the PAI is widely lauded for its clinical utility and ample psychometric evaluations (see Blais, Baity, & Hopwood, 2011), likely accounting for its rapidly growing popularity (e.g., Gardner, Boccaccini, Bitting, & Edens, 2015). Although some support for the PAI-A's potential can be drawn from its similarity to the adult version, the PAI-A is shorter (Morey & Meyer, 2014), and, at this time, psychometric data on the adolescent version are limited. Per the PAI-A manual (Morey, 2007b), the BOR scale demonstrated adequate internal consistency and test-retest reliability in the standardization samples. Furthermore, the BOR scale has demonstrated adequate concurrent (Sharp, Ha, Michonski, Venta, & Carbone, 2012) and convergent validity (Morey, 2007b). However, these studies are limited: There are few and only one has been conducted outside the standardization studies. Additionally, no analyses have examined the diagnostic accuracy of the BOR scale, representing a serious limitation to its clinical utility. Moreover, to our knowledge, the factor

structure of the PAI-A BOR scale has been examined only in the original standardization samples, with no independent empirical investigations confirming the intended four-factor structure of Morey (1991, 2007b). In addition to providing deeper psychometric evaluation, investigating the factor structure of the BOR scale can contribute to current debates regarding whether BPD is adequately captured by the traditional four-factor structure described by Morey and others (e.g., Hurt & Clarkin, 1990). Against this background, the broad aim of the current study was to evaluate the factor structure, reliability, convergent validity, and clinical utility of the BOR scale across two high-risk samples of adolescents: inpatients and justice-involved youth.

Method

Participants

Clinical sample.   Three hundred eighty-six admissions to the adolescent unit of an inpatient psychiatric hospital ($N = 386$) were approached for parental consent and youth assent. The inclusion criteria adopted were ages between 12 and 17 years and English fluency. Adolescents were excluded from study participation if clinicians conducting the admission evaluation noted psychosis or intellectual disability or if consent or assent was denied. On these grounds, 34 adolescents were eliminated ($n = 22$ declined, $n = 1$ revoked, $n = 1$ discharged prior to assessments, and $n = 10$ excluded). Adolescents with problematic validity indicators on the PAI-A were also excluded ($n = 25$ in clinical sample [two elevated inconsistency, three elevated infrequency, 20 elevated negative impression management]). Of the final sample ($N = 327$), 61.8% ($n = 202$) was female and the average age was 15.46 years ($SD = 1.39$). Seven percent was Hispanic and the racial breakdown was 81.7% Caucasian, 3.4% Asian, 2.4% African American, and 5.5% multiracial. Seven percent were of another race or did not answer. The sample was largely high income, with 67.1% of parents reporting a household income greater than or equal to $100,000, nearly double the median household income in the United States. The adolescent unit from which adolescents were recruited is typically populated by adolescents with a history of treatment refractory emotional and behavioral symptoms, and most meet criteria for more than one psychiatric disorder.

Forensic sample.   Participants in the forensic sample comprised justice-involved males, all of whom were supervised in the community by the court and/or a juvenile justice county-based department located in the southeastern United States. All English-speaking male youths between the ages of 12 and 19 years being supervised by one of the above-listed entities were eligible to enroll in the study. Of the 216 youth who were approached, 36 declined parental consent or youth assent. Parental consent and assent was obtained for 180 youth, of which 24 failed to complete a single study session (e.g., withdrawal from the study, discharge from probation, ran away from home) and five failed to complete the second study session, reducing the final sample size to 151. No adolescents were excluded based on PAI-A validity indicators.

The final sample of male juvenile offenders ($N = 151$) ranged in age from 12 to 18 years ($M = 15.26$, $SD = 1.27$). The sample primarily consisted of ethnic minorities: 45% Hispanic, 37.7% African Americans, 11.9% Caucasians, and 5.3% mixed race. The

majority of participants ($n = 102$; 67.60%) were serving probation terms; 10.60% of these adjudicated youth were categorized as receiving intensive supervision, 17.2% deferred prosecution, 11.9% conditional release, and 3.3% parole. Participants' instant offenses listed in the official institutional records represented the entire spectrum of categorized offenses. Half of the sample was diagnosed with a mental illness ($n = 76$), primarily attention-deficit/hyperactivity disorder ($n = 66$).

Procedures

This study was approved by the appropriate institutional review boards. In addition, a certificate of confidentiality was secured from the National Institutes of Health for the forensic sample. Regarding the clinical sample, all adolescents admitted to an inpatient psychiatric unit were approached at admission for parental consent and youth assent. Adolescents were then consecutively, privately assessed by doctoral-level clinical psychology students and/or trained clinical research assistants. The order of assessments was random. All adolescents were assessed within the first 2 weeks of admission; the average length of stay was 34.10 days ($SD = 13.36$). In the forensic sample, potential participants were randomly approached in the respective juvenile justice department and parental consent and youth assent were completed. Assessment occurred individually with a doctoral-level clinical psychology student. A standardized review of each youth's institutional file was conducted to collect demographic information.

Measures

The PAI-A (Morey, 2007b) is a 264-item, self-report inventory that includes four validity scales, 11 clinical scales, five treatment scales, and two interpersonal style scales. According to Morey (2007b, p. 61), the development of the PAI-A "involved an adaptation of the PAI (Morey, 1991, 2007a) items to content that is meaningful to adolescents." The current study focuses on the BOR scale, a 20-item scale intended to capture BPD features in youth aged 12–18 years. An average score reflects emotional, identity, and interpersonal instability that are typical of healthy adolescents; a score above community norms (t-score of 60+) indicates moodiness, sensitivity, and instability that exceed typical adolescent levels; and markedly elevated levels (t-score 81+) suggest BPD pathology (Morey, 2007b). The scale has four subscales: identity problems (BOR-I), affective instability (BOR-A), negative relationships (BOR-N), and self-harm (BOR-S; Morey, 2007a, 2007b).

The Childhood Interview for *DSM–IV* borderline personality disorder (CI-BPD; Zanarini, 2003) is a semistructured interview that assesses nine criteria of BPD in youth. Each one of these criteria has a set of question prompts that the interviewer uses to investigate that criterion in a semistructured manner. For instance, the impulsivity criterion is informed by questions concerning drinking, driving, drug use, anger, delinquency, and so forth Based on these prompts, the interviewer rates each DSM-based BPD criterion with a score of 0 (*absent*), 1 (*probably present*), or 2 (*definitely present*). In this interview, an adolescent meets criteria for BPD if five or more criteria are met at the *definitely present* level. In the current study, all interviews were conducted by doctoral-level graduate students or clinical research assistants who

had been trained on the measure by the corresponding author. Excellent psychometric properties for this measure were demonstrated by Sharp, Ha, Michonski, and Carbone (2012).

Results

The mean BOR scale score in the clinical sample was 61.54 ($SD = 12.03$; $Min = 30$; $Max = 90$) and subscale means were: BOR-A 60.77 ($SD = 11.37$); BOR-I, 58.65 ($SD = 11.26$); BOR-N, 59.39 ($SD = 11.12$); and BOR-S, 58.98 ($SD = 15.28$). The BOR scale was not significantly correlated with age, $r = -.073$, $p = .188$. There was a significant relationship between the BOR scale and sex ($M_{Female} = 64.58$, $SD = 11.30$; $M_{Male} = 56.64$, $SD = 11.57$; $t = 6.12$, $df = 325$, $p < .001$). A subset of 322 adolescents completed the CI-BPD; 33.9% ($n = 109$) met diagnostic criteria for BPD and had significantly higher BOR scores ($M_{BPD} = 70.72$, $SD = 9.97$; $M_{Non-BPD} = 56.89$, $SD = 10.01$; $t = -11.76$, $df = 320$, $p < .001$). In the forensic sample, the mean BOR score was 53.19 ($SD = 9.92$; $Min = 33$; $Max = 82$) and subscale means were: BOR-A, 54.84 ($SD = 10.39$); BOR-I, 49.58 ($SD = 8.62$); BOR-N, 51.34 ($SD = 9.64$); and BOR-S, 55.96 ($SD = 12.76$). In the clinical sample, internal consistency estimates were as follows: BOR, .88; BOR-A, .74; BOR-I, .65; BOR-N, .69, and BOR-S, .73. internal consistency analyses in the forensic sample yielded lower coefficient alpha values overall, namely BOR, .82; BOR-A, .67; BOR-I, .56; BOR-N, .62; and BOR-S, .67.

We sought to evaluate the fit of the BOR scale four-factor conceptual subscale structure described by Morey (2007b) using confirmatory factor analysis (CFA). The confirmatory model contained four latent variables: affective instability, identity problems, negative relationships, and self-harm, hypothesized to underlie the 20 items (see Table 1). All latent factors were allowed to correlate freely; no item residuals were permitted to correlate; the maximum likelihood estimator was used. Good model fit was evaluated using established recommendations: comparative fit index (CFI) $\geq .95$, root mean square error of approximation (RMSEA) values close to or less than .06, and Tucker Lewis Index (TLI) values $\geq$ to .95 (Browne & Cudeck, 1992; Hu & Bentler, 1999). The χ^2 goodness-of-fit statistic provided an index of absolute model fit, and although no evidence of problematic skew or kurtosis was noted, the robust Bollen and Stine (BS; Bollen & Stine, 1993) bootstrapped χ^2 was also examined; for both, a nonsignificant χ^2 value ($p \geq .05$) indicates adequate fit. Inspection of fit indices and the χ^2 statistic indicated that the model fit was poor (Kline, 2005) across both samples (clinical sample: CFI, 0.82; RMSEA, 0.07; TLI, 0.76, $\chi^2 = 443.35$, $p < .001$; BS, $\chi^2 = 187.52$, $p = .005$; forensic sample: CFI, 0.78, RMSEA, 0.08; TLI, 0.75, $\chi^2 = 328.21$, $p < .001$; BS, $\chi^2 = 196.65$, $p = .005$). Several items demonstrated weak factor loadings (see Table 1).

In light of poor model fit across both samples, regression weight modification indices (MIs) were examined (see Table 2). Amos automatically reports only MIs that exceed 4. In both samples, large MIs in five of six instances related to item 79 ("When I'm upset, I typically do something to hurt myself"). The MI suggested loading this item on the negative relationships and identity factors across both samples and additionally on the affective instability factor in the clinical sample. Because the item content so clearly maps onto its intended factor, self-harm, the model was not modified in light of these results. Indeed, MI risks overfitting measure-

Table 1
CFA Standardized Regression Weights (Factor Loadings) for Four-Factor Model

Factor	Item	Clinical sample	Forensic sample
	Affective instability		
27	My moods get quite intense.	.774	.657
67	My mood is very steady. (R)	.688	**.376**
187	I've had times when I was so mad I couldn't do enough to express all my anger.	.606	.715
107	I have little control over my anger.	.578	.531
147	I've always been a pretty happy person. (R)	.450	**.351**
	Identity problems		
118	I worry a lot about other people leaving me.	.737	.675
78	Sometimes I feel terribly empty inside.	.615	.731
38	My attitude about myself changes a lot.	.600	.404
158	I can't handle separation from those close to me very well.	**.335**	.478
198	I don't get bored very easily. (R)	**.273**	**.087**
	Negative relationships		
68	My relationships have been stormy.	.657	.651
108	People once close to me have let me down.	.620	.779
148	I rarely feel very lonely. (R)	.551	**.263**
28	I want to let certain people know how much they've hurt me.	.509	.494
188	I've made some real mistakes in the people I've picked as friends.	.477	.418
	Self-harm		
119	I'm too impulsive for my own good.	.830	.736
39	I sometimes do things so impulsively that I get into trouble.	.812	.634
199	I'm a reckless person.	.586	.713
159	I spend money too easily.	.493	**.261**
79	When I'm upset, I typically do something to hurt myself.	**.320**	.469

Note. All factor loadings are standardized. Factor loadings less than .4 are in bold, indicating weak factor loadings.

ment models to sample idiosyncrasies, particularly when modifications are not theoretically justifiable (e.g., Bowen, 2014; Kline, 2005). Still these results point to a need to refine factor structure with particular attention to item 79. Additionally, covariance MI greater than 4 was noted in more than 30 instances in each sample, recommending correlating error terms both within the items of a given factor and across factors.

Regarding convergent validity, independent-samples *t* tests compared adolescents' BOR scale scores with regard to each CI-BPD criterion. For each criterion, the *definitely present* group had significantly higher BOR scale scores than the *absent* group: inappropriate intense anger, $t = -6.60$, $p < .001$; affective instability, $t = -11.58$, $p < .001$; emptiness, $t = -7.92$, $p < .001$;

Table 2
Modification Indices for Four-Factor Model in Both Samples

Samples	Modification index	Parameter change
Forensic sample		
Item 79 ← negative relationships	12.81	.145
Item 79 ← identity	13.74	.150
Clinical sample		
Item 188 ← self-harm	4.68	.162
Item 79 ← affective instability	22.94	.347
Item 79 ← negative relationships	31.21	.409
Item 79 ← identity	28.62	.382

identity disturbance, $t = -8.29$, $p < .001$; paranoia or dissociation, $t = -7.54$, $p < .001$; abandonment fears, $t = -7.75$, $p < .001$; suicidality ($t = -8.68$ $p < .001$); impulsivity, $t = -4.98$, $p < .001$; and unstable relationships, $t = -8.05$, $p < .001$. Receiver-operating characteristics (ROC) analyses assessed the performance of the BOR scale in predicting a diagnosis of BPD. A ROC curve is created when sensitivity is plotted against the false-positive (1 – specificity) rate. The area under the curve (AUC) can be calculated using the nonparametric trapezoid method (Hanley & McNeil, 1982) to establish criterion validity (Thapar & McGuffin, 1998; Fombonne, 1991). The ROC curve with BOR predicting CI-BPD status (see Figure 1) shows AUC = 0.834 ($SE = .024$; $p < .001$), indicating moderate diagnostic accuracy. Plotting sensitivity (Se) and specificity (Sp; see Figure 1) at different cutoff scores indicated that the optimal cut point for the BOR is 64.50 ($Se = .771$, $Sp = .793$) when predicting BPD. ROC analyses were also conducted using subscale scores, with each demonstrating moderate accuracy (AUC = .753–.790, $SE = .027$–.029; all $p < .001$). Optimal subscale cut points were: BOR-A = 64.5, $Se = .716$, $Sp = .714$; BOR-I = 61, $Se = .761$, $Sp = .751$; BOR-N = 62.5, $Se = .642$, $Sp = .732$; and BOR-S = 62, $Se = .679$, $Sp = .723$.
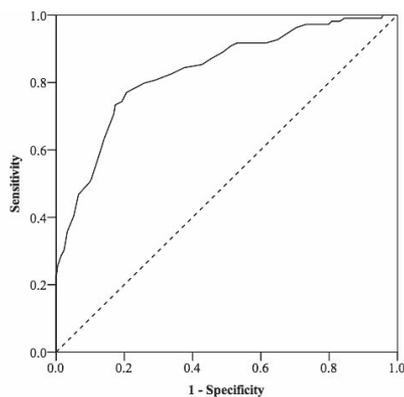
Discussion

The broad aim of the current study was to evaluate the factor structure, reliability, and validity of the PAI-A BOR scale across

A. ROC Curve of PAI-A *BOR* Predicting CI-BPD   B. Sensitivity, Specificity Plotted against PAI-A *BOR* Cut-Off Scores
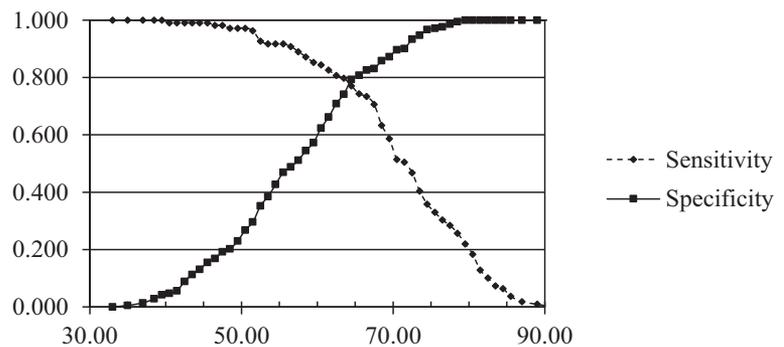

Figure 1. Clinical utility analyses. There were 109 cases positive and 213 cases negative for CI-BPD. The AUC is 0.834 (*SE* = .024, *p* < .001), indicating moderate accuracy in discriminating adolescents with a BPD diagnosis. Sensitivity and specificity were plotted against different cutoff scores on the PAI-A BOR scale in reference to the CI-BPD diagnosis. ROC, receiver-operating characteristic; PAI-A BOR scale, Personality Assessment Inventory-Adolescent Borderline Features scale; CI-BPD, childhood interview for borderline personality disorder; AUC, area under the curve; Se, sensitivity; Sp, specificity.

two high-risk samples in an effort to establish the psychometric properties of this tool in adolescents. Internal consistency estimates were high for the BOR scale in both samples, although they were somewhat lower in the forensic sample. Expected as a function of a reduced number of items, the subscale internal consistency estimates were lower. Relevant to the early identification of BPD, the current study did not find evidence of a significant correlation between age and *BOR*, echoing Morey (2007b), who sites this as evidence that items "are tapping maladaptive variants of issues related to identity and interpersonal behavior, rather than experiences that are developmentally normative for adolescents" (Morey, 2007b, p. 110). In reality, the absence of a correlation does not truly disambiguate normative adolescent emotional turmoil from early BPD manifestations, given that this challenge refers specifically to within-person change. Indeed, the age-specific dimensional proposal for childhood BPD by De Clercq, Decuyper, and De Caluwé (2014) calls for a broad assessment of BPD-related symptoms in youth (rather than downward extension of adult BPD criteria), citing longitudinal evidence that irritable-aggressive traits and affective lability are age-specific developmental expressions of later BPD. Concurrent data from the same group point additionally to impulsivity, ineffective stress coping, hyperexpressive traits, and risk behavior as childhood manifestations of BPD (De Clercq, Decuyper, & De Caluwé, 2014). The BOR assesses many of these traits, particularly through items on the affective instability scale, although future research is needed to uncover the relative contribution of PAI-A traits to an eventual BPD diagnosis—a research endeavor absent from original validation studies (Morey, 2007b).

The proposed four-factor structure described by Morey (2007b) in the development of the BOR scale demonstrated poor model fit across both samples in this study, and several items demonstrated weak factor loadings. In the forensic sample, most weak loadings corresponded to reverse-coded items. The possibility that these items suppressed internal consistency estimates, as in prior re-

search (e.g., Weems & Onwuegbuzie, 2001), suggests that scale refinement may seek to reword or eliminate reverse-coded items. In both samples, one reverse-coded item on the identity problems subscale (i.e., "I don't get bored very easily") demonstrated particularly weak loadings, suggesting it may not adequately reflect the latent construct. Likewise, the self-harm subscale contained items with weak loadings across samples. Further examination revealed disparate item content on this scale, with four items tapping impulsivity and only one item tapping self-harm. Modification indices additionally suggested problems with the one self-harm item (79), suggesting it load onto numerous other factors. Future research should undertake item response theory analyses to identify and remove/reword problematic items, particularly item 79, as well as across these two subscales more broadly. In its current form, however, the BOR seems to lack adequate content validity in that it does not provide adequate representation of the self-harm facet of BPD—a critical omission given both the diagnostic criteria and public health relevance of BPD.

Regarding clinical utility, ROC analyses utilized both the BOR total score, because this score is most likely to be used by clinicians, and the four subscale scores. Across all analyses, BOR and its subscales revealed moderate diagnostic accuracy in predicting a diagnosis of BPD. Notably, the optimal cut scores ranged between 61 and 64.5—substantially lower than the score of 81 recommended in the PAI-A manual (Morey, 2007b). The manual is quite cautious regarding this score, though, because these data were based on only 18 individuals with a BPD diagnosis (vs. 109 in the current study). Current analyses provide strong evidence for the clinical utility of the BOR scale in an inpatient sample of adolescents (with a lower cutoff score), despite aforementioned areas for improvement regarding individual item performance.

The present study possessed several limitations in need of further examination. First, the lack of ethnic diversity in the inpatient sample and the absence of concurrent measures of BPD in the forensic sample warrant future research. Second, the foren-

sic sample size is small for powering CFA analyses, and, thus, results should be replicated. Third, the current study cannot comment on the convergent validity of BOR with other self-report measures of BPD and thus cannot disentangle latent structure problems from sample-specific idiosyncrasies. Fourth, the PAI-A validity indicators led to the exclusion of 25 subjects, as is standard, recommended practice with the PAI-A (Morey, 2007b). However, research with the adult PAI indicates that BPD patients are more likely to elevate the negative impression management scale (as in this study) because of a "negativistic response style in which symptoms may be exaggerated" (p. 298; Kurtz & Morey, 2001). This study provides first evidence that the PAI-A's validity scales, like the adult version, may partially measure constructs that are relevant to BPD symptomatology, warranting future research and calling into question the standard exclusion of profiles with elevated validity scales. Fifth, the present study was unable to evaluate a bifactor model, which includes loading items onto both a general factor and several orthogonal specific factors (Cai, Yang, & Hansen, 2011) because of inadequate sample size (Morgan, Hodge, Wells, & Watkins, 2015). This is an important area of future research, in light of recent evidence supporting a bifactor structure for BPD in youth (Sharp, Steinberg, Temple, & Newlin, 2014). Moreover, the presence of numerous modification indices suggesting correlating error terms for items both within and across factors suggests that items across factors may be tapping another (general) latent factor. Indeed, the current findings suggest that the hypothesized four-factor structure may be of dubious value, given cross-loadings and poorly performing (and loading) items across a number of subscales. Relatedly, the current study was unable to conduct a multiple-groups CFA, which can address measurement model equivalence across samples because of poor model fit in both samples evaluated.

Still, the current study was the first to provide a psychometric evaluation of the PAI-A BOR scale outside the initial standardization studies and therefore provides the first clinical and forensic data on this tool collected by independent investigators. Moreover, the current study's use of two high-risk adolescent samples is a particular strength of this research, contributing both to its clinical utility and generalizability. Additionally, the analyses conducted herein reflect a wide psychometric evaluation, including scale reliability, factor structure, and item-level examination. Finally, use of an interview-based measure of BPD in the inpatient sample allowed for examination of the PAI-A BOR scale's clinical utility for the first time. Together, analyses suggest adequate internal consistency, convergent validity, and clinical utility for the PAI-A BOR across two samples with a high incidence of BPD, although areas for measure refinement—particularly regarding factor structure—remain.

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