

DSM Borderline Criterion Function Across Age-Groups: A Cross-Sectional Mixed-Method Study

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Carla Sharp^{1,2}, Lynne Steinberg¹, Jared Michonski³, Allison Kalpakci¹,
Chris Fowler^{2,4}, B. Christopher Frueh⁵, and Peter Fonagy⁶

Abstract

DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) Section II criteria for borderline personality disorder (BPD) lack developmental operationalization. The aim of the current study was to evaluate whether *DSM* criteria operate similarly across adolescents and adults to determine if developmental adjustment for *DSM* criteria was needed. Three age cohorts were recruited: adolescents (ages 12–17 years; $n = 484$), young adults (ages 18–25 years; $n = 442$), and adults (ages ≥ 26 years; $n = 953$). The Child Interview for *DSM-IV* BPD and the Structured Clinical Interview for *DSM-IV* Axis II disorders were administered to adolescents and adults, respectively. Item response theory methods were used to evaluate differential item (or criterion) functioning (DIF) of BPD criteria across adolescents and adults. Qualitative analyses were then used to evaluate the potential sources of DIF. Item response theory results demonstrated DIF across adolescents and adults for all *DSM* BPD criteria. Qualitative analyses suggested that the source of DIF was most likely due to rater/interviewer bias. Results furthermore suggested that behavioral criteria may represent the heterotypic features of BPD, while intra- and interpersonal criteria represent the homotypic features of the disorder. The article concludes with recommendations for developmentally informed guidelines for the assessment of BPD.

Keywords

borderline personality pathology, adolescents, developmental continuity

A major principle of developmental psychopathology is that of heterotypic continuity—that is, the idea that symptoms of a particular disorder may manifest differently in different developmental stages, while the underlying meaning of the disorder remains the same. This principle has prompted revisions to diagnostic criteria in psychiatric nomenclature to encourage clinicians to ask about diagnostic criteria in developmentally sensitive ways. Accordingly, the most recent version of the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; American Psychiatric Association, 2013)* emphasizes as one of its major enhancements more careful attention to developmental issues related to diagnosis. An example includes, for instance, the major depressive disorder criterion that stipulates that depressed mood may be identified in children and adolescents as irritable mood (p. 160). Similarly, the weight gain/loss criterion is developmentally translated to “failure to make expected weight gain” in children and adolescents (p. 161). For schizophrenia, clinicians are advised that in children delusions and hallucinations may be less elaborate than in adults, and visual hallucinations are more common and should be distinguished from normal fantasy play and that disorganized speech should not be immediately considered indicative of schizophrenia as it may manifest

in young children or other disorders (p. 99). For specific phobia, it is noted that anxiety may be expressed by crying, throwing tantrums, freezing, or clinging (p. 197), and for social anxiety, it is noted that anxiety must occur in peer settings and not just during interactions with adults. In all, then, the *DSM*, especially the most recent version, attempted to enhance its developmental sensitivity and has begun to make strides in this regard.

Lagging behind are the diagnostic criteria for borderline personality disorder (BPD). The only developmental consideration in Section II of the *DSM-5* borderline criteria is that the diagnosis of BPD may be applied to children or

¹University of Houston, Houston, TX, USA

²The Menninger Clinic, Houston, TX, USA

³Evidence-Based Treatment Centers of Seattle, Seattle, WA, USA

⁴Houston Methodist Hospital, Houston, TX, USA

⁵University of Hawai'i at Hilo, Hilo, HI, USA

⁶University College London, London, UK

Corresponding Author:

Carla Sharp, Department of Psychology, University of Houston, 126 Heyne Building, Houston, TX 77204, USA.

Email: csharp2@uh.edu

adolescents when “the individual’s particular maladaptive personality traits appear to be pervasive, persistent, and unlikely to be limited to a particular developmental stage or another mental disorder” (American Psychiatric Association, 2013, p. 647) and that in contrast to the 2 years necessary for an adult PD to be diagnosed, only 1 year is necessary for child/adolescent BPD. No adjustments are made for any specific borderline criterion based on developmental considerations, which is potentially problematic given that most of the constructs underlying *DSM* criteria would be considered susceptible to maturational influences when considering their typical development. For instance, it is well-known that the capacity to regulate emotion increases from infancy, through childhood and adolescence, into adulthood with regulation becoming internally managed rather than externally (e.g., through the help of caregivers) (Thompson & Goodvin, 2005). Increases in emotion regulation capacity across development have obvious implications for at least six BPD criteria. Specifically, the capacity to regulate negative emotions leads to the inhibition of impulsive responding such as anger (Keenan, 2012), self-harm (Crowell, Beauchaine, & Lenzenwger, 2008), affective instability (Selby & Joiner, 2009), and unstable relationships (Linehan, 1993). In addition, increased self-other differentiation across development has implications for emotion regulation, identity development, and feelings of relationship security (Fonagy, Gergely, Jurist, & Target, 2002; Gunderson, 2007). Given these maturational changes in affective and social systems and processes, it is reasonable to argue that borderline criteria would manifest differently across development. Currently, however, borderline criteria are applied without any adjustment of those criteria to adolescents. Put differently, current tools used in adolescents to assess borderline pathology (see Sharp & Fonagy, 2015, for a review of measures) use a simple downward extension of the nine borderline criteria in operationalizing the disorder. As yet, it remains unclear whether the nine *DSM* criteria apply similarly to adolescents when compared directly with adults.

Against this background, the aim of the current study was to evaluate whether the nine *DSM* borderline criteria operate similarly across adolescents and adults from a psychometric point of view. We recruited three age cohorts based on the classic taxonomy of developmental periods: adolescents (ages 12-17 years), young adults (ages 18-25 years), and adults (ages ≥ 26 years). The Child Interview for *DSM-IV* BPD (CI-BPD; Zanarini, 2003) was administered to adolescents, and the Structured Clinical Interview for *DSM-IV* Axis II disorders (SCID-II; First, Spitzer, Gibbon, Williams, & Benjamin, 1994) was administered to young adults and adults to capture data on the nine borderline criteria across age-groups. We used item response theory (IRT) methods to evaluate differential item (criterion) functioning (DIF) for the nine *DSM* BPD criteria across adolescents, young adults and adults. DIF occurs when individuals who

have the same standing on the latent trait do not have the same probability of item endorsement (Thissen, Steinberg, & Wainer, 1993). In the context of evaluation of *DSM* criteria, IRT DIF analyses allow the assessment of the extent to which a *DSM* criterion performs differently when applied to groups of individuals varying on a particular characteristic like age, race, socioeconomic status, and so forth.

Based on the principle of heterotypic continuity, we expected DIF between adolescents versus adults. Because DIF may be a function of (1) the clinicians’ or raters’ interpretation of the interview responses, (2) the meanings attached to items by participants, and/or (3) the items themselves favoring endorsement for one group relative to another group, we next set out to evaluate potential sources of DIF. To this end, we made use of qualitative analyses (interpretative content analyses; Terreblanche, Kelly, & Durrheim, 2010). Specifically, content analyses aimed at assessing whether adolescents with BPD understood the meaning of *DSM* criteria. Next, we compared the content validity of CI-BPD and the SCID-*IV* Axis II disorders to evaluate whether the use of an adolescent- versus adult-focused tool was the source of expected DIF. Finally, we considered the rater’s interpretation of participant responses to the prompts that assess the *DSM* criteria.

Method

Participants

Adolescent Sample. Adolescents were 484 (62% females; ages 12-17 years; mean [M] = 15.35 years, standard deviation [SD] = 1.44) consecutive referrals (2009-2015) to a 16-bed inpatient psychiatric unit that usually serves individuals with severe behavioral and emotional disorders who have not responded to previous interventions. Descriptions of the setting, treatment, and extant measures are available in detail elsewhere (Sharp et al., 2009). The inclusion criterion was sufficient proficiency in English to consent to research and complete the necessary assessments, and exclusion criteria were a diagnosis of schizophrenia or another psychotic disorder, an autism spectrum diagnosis, or an IQ of less than 70. The sample had the following racial/ethnic breakdown: 88.2% White ($n = 380$), 6.9% Hispanic ($n = 30$), 3.5% Asian ($n = 15$), 6.3% mixed or other ($n = 27$), and 11% unspecified ($n = 53$). Based on *DSM-IV* criteria (as determined by the *Diagnostic Interview Schedule for Children, DISC-IV*; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2006), 55.3% were diagnosed with a depressive disorder, 6.9% with a bipolar disorder, 8.6% with any eating disorder, 43.8% with any externalizing disorder, and 56.5% with any anxiety disorder at admission. In all, 34.1% of the sample met criteria for BPD based on a clinical interview. For the qualitative analyses, 15 females diagnosed with BPD were randomly selected.

Young Adult Sample. The young adult sample consisted of 442 (45.9% female; M age = 21.34 years, SD = 2.10) patients consecutively admitted from June 2012 to September 2014. All patients were engaged in a 6- to 8-week intensive multimodal inpatient treatment program of which more details can be obtained from Allen et al. (2009). Diagnostic profiles (as determined by the SCID-I; First et al., 1996) indicated the following: 89.1% of patients in the sample were diagnosed with at least two co-occurring *DSM-IV-TR* Axis I/II disorders, 68.1% manifested an anxiety spectrum disorder, 60.8% a major depressive disorder, 63.2% a substance use disorder, 20.5% a bipolar spectrum disorder, and 8.2% a psychotic spectrum disorder. A total of 28% of young adults received a positive diagnosis of BPD. Patients were included in the study regardless of symptom severity or comorbid diagnoses. The sample had the following racial/ethnic breakdown: 87% White (n = 384), 8% Hispanic (n = 35), 1.9% Asian (n = 8), 9.6% mixed or other (n = 42), and 0% unspecified (n = 0).

Adult Sample. The adult sample consisted of 953 adult (50.8% females; M age = 42.95 years, SD = 12.62) consecutively admitted from June 2012 to September 2014. Like the young adult sample, all patients were engaged in a 6- to 8-week intensive multimodal inpatient treatment. Diagnostic profiles (as determined by the SCID-I; First et al., 1996) indicated the following: 78.8% of patients in the sample were diagnosed with at least two co-occurring *DSM-IV-TR* Axis I/II disorders. A total of 54.2% manifested an anxiety spectrum disorder, 66.4% a major depressive disorder, 55.5% a substance use disorder, 17.3% a bipolar spectrum disorder, and 8% a psychotic spectrum disorder. Fourteen percent of adults received a positive diagnosis of BPD. The sample had the following racial/ethnic breakdown: 93% White (n = 886), 6.3% Hispanic (n = 60), 2.9% Asian (n = 28), 3.5% mixed or other (n = 33), and 1.6% unspecified (n = 15).

The study was approved by an institutional review committee, and participants began the study after signing a written voluntary informed consent form, or parental consent and adolescent assent were obtained when appropriate.

Measures

Child Interview for *DSM-IV* Borderline Personality Disorder. BPD criteria were assessed in adolescents using the CI-BPD (Zanarini, 2003), which is a semistructured interview that assesses *DSM-IV* BPD in children and adolescents; all nine of the *DSM-IV* BPD criteria were included. Criterion ratings are made by a clinical interviewer after asking a series of questions associated with each criterion. Each criterion is rated with a score of 0 (*absent*), 1 (*probably present*), or 2 (*definitely present*). A diagnosis is assigned if the adolescent receives a rating of 2 on five or more of the diagnostic criteria. Beyond the original validation study of the CI-BPD

(Zanarini, 2003), the psychometric properties of the CI-BPD were recently shown to be strong (Sharp, Ha, Michonski, Venta, & Carbone, 2012). Adolescents were collectively assessed by doctoral-level clinical psychology students and conducted in private at admission. In the current sample, inter-rater reliability was found to be 90.9%.

Structured Clinical Interview for *DSM-IV* Axis II Personality Disorders. BPD criteria were assessed in young adults and adults using the research version of the SCID-II (First et al., 1994). Similar to the CI-BPD, criteria ratings are made on a 3-point scale by a clinical interviewer after asking a series of questions: 1 = *absent/false*, 2 = *subthreshold*, and 3 = *threshold/true*. Trained master's level research assistants under the supervision of licensed clinical psychologists administered SCID-I/SCID-II interviews.

Data Analytic Plan

IRT Analyses. The graded-response IRT model (Samejima, 1969, 1997) was used to evaluate DIF between age-groups for the nine BPD criteria. The graded response model divides the multiple-category item responses into binary pieces representing the probability of a response in a category or higher as a function of the underlying construct. For each BPD criteria, slope and threshold parameters are estimated. The slope parameter, also known as discrimination, represents the magnitude of the relation of the criteria to the underlying construct (BPD). The threshold parameters reflect the level of the trait on the construct continuum required to score in a category or higher. For a three-category item (scored as 0 = *not present*, 1 = *probably present*, or 2 = *definitely present*), two thresholds are estimated; the first threshold represents scores of "one or higher," and the second threshold is for scores of "two or higher." The probability of a rating in a particular category is obtained by subtraction; for example, the probability of a rating in Category 1 is obtained by the probability of 1 or higher minus the probability of 2 or higher. Differences in the slope parameters imply that there are differences in the strength of the relation of the item response to the underlying construct depending on age-group. Group differences in the threshold parameters imply that different levels of the underlying construct are required for endorsing a particular "category or higher" depending on age; thus, endorsement rates differ between the age-groups.

The IRT analyses and the computation of the test statistics were performed using IRTPRO (Cai, du Toit, & Thissen, 2011). Goodness of fit of the models was evaluated using the M_2 statistics and its associated root mean square error of approximation (RMSEA) value (Maydeu-Olivares & Joe, 2006), as well as the standardized local dependence (LD) chi-square indices (based on the LD index proposed by

Chen & Thissen, 1997). LD indicates that the observed covariation among responses to the items in an item-pair exceeds that predicted by the model. The LD indices are standardized chi-square values; values 10 or greater are considered noteworthy.

Qualitative Analyses. To evaluate whether content differences between the CI-BPD and the SCID-II accounted for DIF, a simple content comparison for SCID-II and CI-BPD was carried out. To evaluate whether adolescents had difficulty understanding complex and abstract BPD criteria, CI-BPD interviews were transcribed for 15 girls between the ages of 12 and 17 years that met the criteria for BPD. We focused on girls only, because the scope of the current article, already expansive, did not allow for a focus on gender differences. Following methods described by (Skinner, 2007; Terreblanche et al., 2010), transcriptions were analyzed independently by the first and fourth authors to identify content that could speak to the adolescents' ability to understand the questions posed to them in the CI-BPD. Discrepancies in the comparison of the independent analyses were reviewed against the original reports to ensure accuracy and validity. These two analyses were then combined, and the final report was agreed on by both authors.

Results

IRT DIF Analyses

The first set of analyses assessed the presence of DIF in the nine BPD criteria across three groups (adolescents, young adults, and adults). The analysis involved comparing the graded model parameters (one slope and two thresholds) for each criterion estimated separately for each group, after using all nine criteria to estimate the population mean and standard deviation for the young adults and adolescents, relative to the adults, which are fixed at 0 and 1, respectively. Analysis of variance-style orthogonal contrasts compared (1) adolescents versus the average of young adults and adults and (2) young adults versus adults. This analysis did not detect DIF between young adults and adults; however, DIF was detected for each criterion for the contrast comparing adolescents with the average of young adults and adults. Table 1 shows the Wald statistics (Langer, 2008) for the overall chi-square test from this analysis. Because DIF was not detected between adults and young adults, all subsequent analyses combined young adults and adults into a single group that was then compared with the adolescent group.

The two-group IRT DIF analysis involved comparing the graded model parameters for each criterion estimated

Table 1. Wald Statistics for Each Borderline Personality Disorder Criterion Using All Other Items as Anchor.

Item	Content	Contrast	Total χ^2	<i>p</i>
1	Abandonment fears	T vs. A + Y	32.9	.0001
		A vs. Y	1.2	.7439
2	Unstable relationships	T vs. A + Y	39.1	.0001
		A vs. Y	4.0	.2649
3	Identity disturbance	T vs. A + Y	56.4	.0001
		A vs. Y	4.9	.1792
4	Impulsivity	T vs. A + Y	73.2	.0001
		A vs. Y	4.6	.2054
5	Suicidal behaviors	T vs. A + Y	93.9	.0001
		A vs. Y	1.1	.7811
6	Affective instability	T vs. A + Y	12.8	.0052
		A vs. Y	5.5	.1382
7	Emptiness	T vs. A + Y	76.5	.0001
		A vs. Y	6.3	.0977
8	Uncontrolled anger	T vs. A + Y	16.8	0.0008
		A vs. Y	3.7	0.3012
9	Paranoid ideation	T vs. A + Y	34.4	.0001
		A vs. Y	3.6	.3153

Note. T = adolescents (age 12-17 years); A = adults (age 25+ years); Y = young adults (age 18-25 years). Values in boldface are statistically significant using Benjamini-Hochberg (1995)-adjusted critical *p* values. Observed *p* values are based on three degrees of freedom for the overall test (that includes both slope and threshold parameters).

separately for the adolescents and adults, after using all nine criteria to estimate the population mean and standard deviation for the adolescents relative to the adults (fixed at 0 and 1, respectively). Relative to the adult group, the mean and standard deviation for the population distribution for the teen group was .59 and .93, respectively. This analysis indicated that four of the BPD criteria showed DIF in both the slope and the threshold parameters, and for the remaining five, DIF was limited to the threshold parameters.¹ For the criteria that did not show DIF in the slope parameters, another analysis was done that estimated a common slope for the adults and adolescents, but allowed the threshold parameters to vary between groups. Table 2 presents the slope and threshold parameters for the nine criteria organized into two "consistent" sets—the five criteria with lower thresholds for adolescents (i.e., impulsivity, suicidal behaviors, affective instability, uncontrolled anger, and paranoid ideation) and the four criteria that show lower thresholds for adults (i.e., abandonment fears, unstable relationships, identity disturbance, emptiness). The majority of the criteria show DIF concentrated solely in the threshold parameters. Lower thresholds imply that higher ratings are given at lower levels of the underlying BPD construct.

This finding of DIF for all the BPD criteria posed problems for direct interpretation. DIF is defined as differences

Table 2. Wald Statistics for Slope and Threshold Parameter Differences, and the Slope and Threshold Parameter Estimates for the Nine Borderline Personality Disorder Criteria.

Item	Content	Slope		Threshold		Group	Threshold for a rating in the specified category or higher and associated SE			
		$\chi^2(df = 1)$	$\chi^2(df = 2)$	Slope	SE		2	SE	3	SE
<i>Adults lower thresholds</i>										
1	Abandonment fears	0.6	28.8	1.49	0.14	Adult	0.47	0.05	1.27	0.09
						Teen	1.01	0.09	1.76	0.11
2	Unstable relationships	0.1	34.8	1.68	0.13	Adult	0.25	0.04	0.79	0.06
						Teen	0.69	0.08	1.37	0.09
3	Identity disturbance	6.5	46.1	1.53	0.10	Adult	-0.02	0.05	1.05	0.07
				2.12	0.26	Teen	0.65	0.06	1.22	0.08
7	Emptiness	0.2	78.9	1.30	0.09	Adult	-0.15	0.05	0.36	0.05
						Teen	0.60	0.09	1.34	0.10
<i>Adolescents lower thresholds</i>										
4	Impulsivity	13.8	65.0	1.39	0.10	Adult	0.33	0.05	1.06	0.07
				0.75	0.12	Teen	-0.11	0.16	0.42	0.13
5	Suicidal behaviors	0.1	94.5	1.35	0.10	Adult	0.50	0.05	1.21	0.08
						Teen	-0.37	0.10	0.26	0.09
6	Affective instability	0.0	12.4	2.05	0.16	Adult	0.29	0.04	0.68	0.05
						Teen	0.02	0.07	0.58	0.07
8	Uncontrolled anger	5.3	9.8	1.53	0.11	Adult	0.65	0.05	1.32	0.08
				1.07	0.14	Teen	0.38	0.10	1.26	0.12
9	Paranoid ideation	15.8	18.9	0.97	0.09	Adult	0.89	0.08	1.58	0.13
				1.80	0.21	Teen	0.37	0.07	1.00	0.08

Note. *df* = degree of freedom; SE = standard error. Values in boldface are statistically significant using Benjamini-Hochberg (1995)-adjusted critical *p* values.

in the item parameters after accounting for group mean differences. The estimation of the population distribution mean and standard deviation is based on an anchor set composed of the nine criteria. However, because all criteria show DIF, the estimated mean and standard deviation for the population distribution of the adolescent group (relative to the adult group) may not be representative of the true latent mean difference. Another implication of the finding that all the BPD criteria show DIF is that the direction of the differences is split among the criteria.

The next analyses are configured to evaluate the presence of DIF separately for each “consistent” set of criteria, using the “other” criterion set as the anchor to estimate the population and standard deviation for the teen group relative to the adult group (fixed at 0 and 1, respectively). The population mean can be estimated when the item parameters (slopes and thresholds) for the anchor items are constrained equal across the two age-groups. However, the focus of this analysis is not to detect the presence of DIF in the item parameters that are freely estimated for the two groups but rather to obtain an estimate of the population mean based on the anchor set of items. Because the majority of the criteria show DIF in the threshold parameters, we are

using this estimated population mean, in place of the threshold parameter differences, for the detection of DIF.

First, impulsivity, suicidal behaviors, affective instability, uncontrolled anger, and paranoid ideation were evaluated for DIF using the remaining four criteria (abandonment fears, unstable relationships, identity disturbance, and emptiness) as an anchor set. Significant group differences in both the slope and the threshold parameters were observed for impulsivity, uncontrolled anger, and paranoid ideation; differences in the threshold parameters were found for suicidal behaviors and affective instability. However, these findings are secondary to evaluating the population mean and standard deviation estimated for the adolescent group based on the anchor item set. Relative to the adults, the estimated population mean and standard deviation for adolescents are -0.01 and 1.11 , respectively. Thus, using the anchor set including abandonment fears, unstable relationships, identity disturbance, and emptiness, very little mean difference between adults and adolescents is observed. This suggests comparable functioning between adolescents and adults for these criteria.

The next analysis evaluated abandonment fears, unstable relationships, identity disturbance, and emptiness for DIF

using the other “consistent” set (impulsivity, suicidal behaviors, affective instability, uncontrolled anger, and paranoid ideation) as the anchor for the estimation of population distribution mean and standard deviation for the adolescents relative to that for adults (fixed at 0 and 1, respectively). All of these four criteria show significant differences in the threshold parameters. However, these findings per se are not our focus; instead, we are interested in the estimated population mean and standard deviation for the adolescent group. Specifically, relative to adults, the estimated mean and standard deviation for the teen population distribution is 1.0 and .91, respectively. This is a very large mean difference between the adults and the adolescents—one standard unit difference in the population means.

The two separate analyses evaluating DIF in one set of criteria in the context of an anchor set comprised of the other set of criteria allowed for an estimation of the population group mean difference for adolescents relative to mean 0 and standard deviation 1.0 for adults. The differences in the population means observed (i.e., about 0 difference for one set and one standard deviation difference in the population means in the second set) imply that the underlying construct is not comparable for the two criteria sets; that is, the criteria do not have the same endorsement rate for adolescents and adults. The estimated population mean of 1.0 for adolescents relative to adults implies a higher level of endorsement for the *DSM* BPD criteria of impulsivity, suicidal behaviors, affective instability, uncontrolled anger, and paranoid ideation. The question therefore arises about why the differences in endorsement rates between adults and teens are different depending on the criterion set. There are some obvious possibilities, namely, differences between the assessment instruments (i.e., CI-BPD and SCID-II), differences in respondents’ understanding of the abstract criteria of BPD, and differences in the raters’ interpretation of the interview responses. We therefore compared the content of the CI-BPD and the SCID-II interview protocols and conducted qualitative content analyses of CI-BPD interviews to evaluate meaning differences in the BPD criteria between teens and adults.

Content Comparison of the SCID-II and CI-BPD Assessment Tools

The results of the content comparison are summarized in Table 3. Table 3 shows comparability between tools, with the exception that the CI-BPD is more detailed in the use of its prompts, especially for the impulsivity criterion. Some of these specific prompts for impulsivity include anger, physical aggression, and law violations that are not explicitly included in the adult instrument. The interview for paranoid ideation/dissociation also uses more specific prompts in the CI-BPD compared with the SCID-II.

Qualitative Analysis of the CI-BPD Interviews

The results of the qualitative analyses support the conclusion that adolescents diagnosed with BPD fully understood what was meant by each criterion. Several of the *DSM* criteria are behavioral (uncontrolled anger, affective instability, suicidal behaviors, impulsivity) and therefore presumably are easily understood by adolescents. We discuss these first, after which we discuss the more abstract and internally focused criteria that were thought to be associated with a greater likelihood of misunderstanding (emptiness, identity disturbance, paranoid ideation/dissociation, abandonment fears, unstable relationships). Table 4 lists additional and complete quotes from the interviews.

Uncontrolled Anger. Most adolescents endorsed the anger criterion and described mostly relational contexts as typical triggers, especially parents, for example, ID 6694 (age 14 years)

Just little things tick me off, specifically with my parents. I get very, very angry at them, cause they don’t often see-often see eye to eye with me . . . But I do get angry a lot and just kinda frustrated. A lot especially probably at adults.

Of note, is the disproportionate nature of the magnitude of the anger response to seemingly benign triggers, for example, ID 4782 (age 15 years)

It’s scary when I’m mad. (What happens?) I mean like, like um, just like, my mom knows, it’s really scary when I’m mad. I go out of control. I mean, I yell, I throw things.

BPD adolescents also describe efforts to control anger, for example, ID 5278 (age 17 years):

And I think what I thought at the time I was doing was I was just letting it go and kind of just forgetting about my anger, but I was really actually keeping it inside of me so it kind of built up to the point where I couldn’t really control it anymore.

Affective Instability. Borderline adolescents understood what was meant by questions regarding affective instability, for example, ID 5821 (age 17 years):

Umm I’ll just get like really extreme in different situations. Like I’ll get really, really happy and then I’ll just flick a switch and I’ll be like really really depressed.

Adolescents also describe the “shallowness” that often associates with borderline affective instability—ID 6694 (age 14 years):

I can be really angry and then like I can instantly [snaps] turn that off if needed. Um, I’m really good at, like if I’m walking down the street and having a fight with my mom and we run

Table 3. Comparison of BPD Criteria for SCID-II and CI-BPD.

DSM criterion listed in both SCID-II and CI-BPD	SCID-II	CI-BPD
Abandonment fears Frantic efforts to avoid real or imagined abandonment (do not include suicidal or self-mutilating behavior covered elsewhere)	You said you have often become frantic when you thought that someone you really cared about was going to leave you. What have you done? (Have you threatened or pleaded with him or her?)	Have you frequently tried to avoid feeling completely alone or abandoned (e.g., often called someone you're close to because you were feeling totally alone or scared)? Have you tried to avoid being left alone or abandoned (e.g., pleaded with people not to leave you, clung to them physically, refused to leave their home or office)?
Unstable relationships A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation	You said that your relationships with people you really care about have lots of extreme ups and downs. Tell me about them. (Were there times when you thought they were everything you wanted and other times when you thought they were terrible? How many relationships were like this?)	Have you often gone from loving and admiring someone to feeling that you can't stand him or her? Have you often gone from feeling like you couldn't live without someone to needing to get away from him or her? Have you had any stormy relationships or relationships with a lot of ups and downs? Have you any relationships with a lot of very intense arguments? How about times when you stopped talking to one another or seeing one another? (IF YES) And then got back together again?
Identity disturbance Markedly and persistently unstable self-image or sense of self	You said that you have all of a sudden changed your sense of who you are and where you are headed. Give me some examples of this. You've said that your sense of who you are often changes (Does your sense of who you are often change dramatically?). Tell me more about that. You've said that you are (Are you?) different with different people or in different situations so that you sometimes don't know who you really are. Give me some examples of this. (Do you feel this way a lot?). You've said (Have there been?) that there have been lots of sudden changes in your goals, career plans, religious beliefs, and so on. Tell me more about that.	Have you often been unsure of what kind of person you are? Have you frequently gone from feeling sort of ok about yourself to feeling that you're bad or even evil? Have you often felt that you had no consistent or steady sense of yourself? How about that you had no identity? How about that you had no idea of who you are or what you believe in? How about that you don't even exist?
Impulsivity Impulsivity in at least two areas that are potentially self-damaging (do not include suicidal or self-mutilating behavior covered elsewhere)	You've said that you've (Have you?) often done things impulsively. What kinds of things? How about buying things you really couldn't afford? Having sex with people you hardly know, or "unsafe sex"? Drinking too much or taking drugs? Driving recklessly? Uncontrollable eating? If YES to any of the above: Tell me about that. How often does it happen? What kinds of problems has it caused?	Have you gotten really drunk? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you gotten high on prescription or street drugs? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you impulsively gotten sexually involved with anyone or had any brief affairs? (IF YES) How many times? (2 = five times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you had times where you ate so much food that you were in a lot of pain or had to force yourself to throw up? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you spent all your money as soon as you got it? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you lost your temper and really shouted, yelled, or screamed at anyone? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you threatened to physically harm anyone (e.g., told someone that you would punch him, stab him, or kill him)? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you shoved, slapped, punched, or kicked someone? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you been in any fistfights? (IF YES) How many? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you deliberately damaged property (e.g., smashed dishes, broken furniture, destroyed some of your own things)? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you driven far too fast or while you were under the influence of alcohol or drugs? (IF YES) How many times? (2 = five times or more, 1 = 3-4 times, or 0 = 0-2 times) Have you done anything that's against the law (e.g., shoplifted, sold drugs, destroyed public property)? (IF YES) How many times? (2 = 5 times or more, 1 = 3-4 times, or 0 = 0-2 times)

(continued)

Table 3. (continued)

DSM criterion listed in both SCID-II and CI-BPD	SCID-II	CI-BPD
Suicide/self-harm		
Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior	You've said that you have (Have you?) tried to hurt or kill yourself or threatened to do so. You've said that you have (Have you ever?) cut, burned, or scratched yourself on purpose? Tell me about that.	Have you deliberately hurt yourself without meaning to kill yourself (e.g., cut yourself, burned yourself, punched yourself, put your hand through windows, punched walls, banged your head)? (IF YES) How many times? Have you threatened to kill yourself? (IF NO) How about telling someone that you're going to kill yourself to let them know you're in pain? To see if they care? (IF YES TO ANY OF ABOVE) How many times? Have you actually tried to kill yourself? (IF YES) How many times?
Affective instability		
Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)	You said that (Do you?) you have a lot of sudden mood changes. Tell me about that. (How long do your "bad" moods last? How often do these mood changes happen? How suddenly do your moods change?)	Have you often found that your mood has changed suddenly (e.g., from feeling OK to feeling really sad or very angry or extremely nervous, fearful, or scared)? How about from feeling OK to feeling enraged, panicked, or totally hopeless? Have you had a lot of mood changes? Have you been told that you're a moody person?
Emptiness		
Chronic feelings of emptiness	You've said that (Do you?) you often feel empty inside. Tell me about this.	Have you felt empty a lot of the time? How about that you had no feelings inside? How about that there was nothing inside?
Anger		
Inappropriate, intense anger or difficulty controlling anger, e.g., frequent displays of temper, constant anger, recurrent physical fights	You've said that (Do you?) you often have temper outbursts or get so angry that you lose control. Tell me about this. You've said that (Do you?) you hit people or throw things when you get angry. Tell me about this. (Does it happen often?). You've said that (Do you?) even little things get you very angry. When does this happen? (Does it happen often?)	Have you often felt very angry a lot of the time? Have you often felt really angry inside but managed to hide it so that other people didn't know about it? Have you frequently behaved in an angry manner (e.g., often teased people or said mean things, frequently yelled at people, repeatedly broken things)? Have you become very angry and gotten into physical fights with someone you're close to?
Dissociation		
Transient stress-related paranoid ideation or severe dissociative symptoms	You've said that when you are under a lot of stress you (When you are under a lot of stress, do you?) get suspicious of other people or feel especially spaced out. Tell me about that.	Have you often felt very distrustful or suspicious of other people? Have you believed that they were taking advantage of you or blaming you for things that weren't your fault? How about believing that they were staring at you, talking about you behind your back, or laughing at you? Have you frequently felt as if you were physically separated from your feelings or as though you were viewing yourself from a distance? Have you often felt as if you were in a dream or as though something like a window was between you and the world? Have you repeatedly had times when you felt spaced out or numb? How about when you felt emotionally dead? (IF YES TO ANY OF ABOVE) Did these feelings come and go or were they almost always there? Did they only occur when you were under stress? How about getting worse when you were under a lot of stress?

Note. BPD = borderline personality disorder; SCID-II = Structured Clinical Interview for DSM-IV Axis I disorders; CI-BPD = Child Interview for DSM-IV BPD. Both the SCID-II and the CI-BPD are copyrighted and may not be copied, used, or distributed without the permission of its owners. Importantly, in both the SCID-II and the CI-BPD, the clinical interviewer is provided with the DSM-based criterion against which the patient's responses to the prompts may be evaluated.

Table 4. Examples of Qualitative Responses to the Child Interview for DSM-IV Borderline Personality Disorder.

DSM criterion	Quotes from participants
Uncontrolled anger	<p>ID 6694 (age 14 years): <i>Just little things tick me off, specifically with my parents. I get very, very angry at them, cause they don't often see-often see eye to eye with me and lately that has translated into like, then when I'm angry I run away. But I do get angry a lot, [touches shoe] and just kinda frustrated. A lot especially probably at adults.</i></p> <p>ID 6561 (age 15 years): <i>I usually, I-I have-sometimes I've hit her. But, um, I um, I scream a lot. And I go to my room and I just like, I get really, like I just scratching myself like, with anger. And [clears throat] I just, I don't know, I do a lot of stupid stuff when I'm angry. I'm really impulsive. (Last time you got angry with mom?) Well . . . it was two months ago. (What happened?) She was trying to wake me up for school, and I was kind of sad, I didn't want to go to school. So she went to wake me up and um, I um, [shrugs] I just pushed her and she fell on her butt.</i></p> <p>ID 4782 (age 15 years): <i>It's scary when I'm mad. (What happens?) I mean like, like um, just like, my mom knows, it's really scary when I'm mad. I go out of control. I mean, I yell, I throw things. I mean I remember when I was little, my brother annoyed me to the point where I turned around and I punched him in the face and I knocked his two front teeth out in the movie theatre. I'm just out of control. I have this, my mom kinda describes it as, I just have this look on my face where it's just like, I don't know what I'm doing, I can't control anything, and it's just a really scary look.</i></p> <p>ID 6694 (age 14 years): <i>I get irrational intense, like everything else in my mind is like, [holds hands to sides of head] blanked out.</i></p> <p>ID 5278 (age 17 years): <i>And I think what I thought at the time I was doing was I was just letting it go and kind of just forgetting about my anger, but I was really actually keeping it inside of me so it kind of built up to the point where I couldn't really control it anymore.</i></p>
Affective instability	<p>ID 5821 (age 17 years): <i>Umm I'll just get like really extreme in different situations. Like I'll get really, really happy and then I'll just flick a switch and I'll be like really really depressed.</i></p> <p>ID 6390 (age 14 years): <i>I can go like all over the board, from like happy to really sad to really nervous to . . . mad . . . to happy to like, I don't know-I just can go all over the place.</i></p> <p>ID 6694 (age 14 years): <i>I can be really angry and then like I can instantly [snaps] turn that off if needed. Um, I'm really good at, like if I'm walking down the street and having a fight with my mom and we run into somebody who we know I'm really good at just like, switchin' on the charm, and then like I can feel that a little bit afterwards. And my mood just fluctuates a lot, like I can be really angry and then just like really sad to like laughing hysterically in like no time.</i></p> <p>ID 5821 (age 17 years): <i>Umm like things are so insignificant. Like, I'll be okay, okay, okay and I'll stub my toe and then I'll get so upset. Like, just little insignificant things.</i></p> <p>ID 4784 (age 15 years): <i>And I didn't feel like talking at all, and I didn't really know what to say, and I was just kind of always had that knot in my throat, and I was just so upset and then I just kind of laid on the couch and I just kind of, laid on the pillow and I was just kind of, tears rolling down my face—I wasn't even crying but just, tears were just rolling down my face, the knot in my throat just everything, for the whole hour I was there. I was just kind of just like, laying there, just kind of just like, sobbing. And she was just kinda staring at me and I was just like, yeah she didn't know what was going on. I-she kind of just guessed, she was just like, and I just nodded my head, I was just like [slow nod] mm-hm. She was just like, "Is it Noah?" And I'm just like [shakes head], she was just like, "Is it Justin?" and I was just like [nods]. And then I just like, laid there. And I just cried.</i></p>
Suicide/self-harm	<p>ID 5317 (age 13 years): <i>Fifth grade I cut myself, sixth grade I cut myself, seventh grade is now, I haven't cut myself, but I did once, and that's right there [points to arm] see that scar right there. That was like once-that was like two weeks ago. Not last week, but the week before, so like two weeks ago. Every time I cut myself I usually cut probably about ten times. Like all this [looks to arm] would be filled up, like right here, filled up last year. In fifth grade, a little bit right here, right here, and over right here. [points to arm] I went to-I was hospitalized twice-one in fifth grade, one in sixth grade, and now seventh so. [shrugs] But, I'm here because I need to work on my coping skills, my depression, my emotionalness.</i></p> <p>ID 4460 (age 13 years): <i>Yeah I was in pain, I just threatened to kill myself. My parents were pissing me off, and just to see how their reaction was.</i></p> <p>ID 4682 (age 17 years): <i>Like it helps me release the anger.</i></p> <p>ID 6390 (age 14 years): <i>Ya sometimes that's why I self-harm to make sure I'm still there.</i></p>
Impulsivity	<p>Sexual risk taking ID 4314 (age 14 years): <i>Yes. (How many times?) [grimaces] Oh yeah, that's the only time I've ever been sexually involved with anyone is when it's like totally impulsive. But um, how many times have I [mumbles, deep breath] I don't know if the first one counts or not [sigh]. [looking up, counting on fingers] Yeah one, two . . . three. Three times.</i></p> <p>Getting drunk ID 5443 (age 17 years): <i>Yes. (How many times?) Um, well I did it for like, maybe like ten times in like a two week period. Um, and then, once again a couple months later, and then, once again a couple weeks later, and then uh, once again a couple months later. So like, three times separately and then like, a big chunk of time in two weeks.</i></p> <p>Illicit drug use ID 5278 (age 17 years): <i>Yes, in the past six months. That just, um, [shrugs]. I didn't do drugs until the past six months. (How many times have you gotten high?) A lot. (More than five times?) Yes.</i></p> <p>Impulsive aggression ID 6691 (age 16 years): <i>I have hit my mom, I don't even know why I did that, that was when I was really sick. (How many times?) Like three years ago. Just-not very hard but, you know . . . I don't know. It was when I was, I guess, really anxious. And I had-was having an anxiety attack and I-my mom was trying to help me and I knew she couldn't help me and I didn't think she was trying to help me and I wanted help, cause I had no idea what was going on, and so like, she kept trying to help me and I got really f-mad at that, [runs fingers through hair] so like [inhales] it hurt but um, that happened probably four times.</i></p> <p>Illegal activity ID5278 (age 17 years): <i>Yes. (How many times in the past two years?) I bre- like, well like, does getting fake ID's count? (Yes.) Well then more than five. (What about not including that?) Well, I- fake ID's, I've sold, drugs, I'm underage and I buy alcohol, I get into clubs, I . . . (And those things have happened more than five times?) [nods] (Okay.)</i></p>

(continued)

Table 4. (continued)

DSM criterion	Quotes from participants
Chronic emptiness	<p>ID 4682 (age 17 years): Like, like there are things I feel should make me sad and I don't cry about them or I don't . . . I just think about them over and over and over and analyze them and break them down into the tiniest possible pieces and then I feel empty because I never actually absorb any of the emotion-I just analyze it and that makes me feel pretty empty. And then the things that used to make me happy don't make me happy and even the things that make me sad don't bother me enough to make me cry anymore. So I don't feel like I have any emotional responses to things, besides overanalyzing them. Like even when I'm happy I don't feel like I'm ever in the moment and I'm ever really feeling things for what they really are. Like when people are laughing, I'm laughing too, but I'm never feel like I'm enjoying myself like a normally functioning person would.</p> <p>ID 4782 (age 15 years): Um, like my heart, there literally feels like there's like an empty hole in it. . . . When somebody's just like, really unfair, [voice tightens up] somebody's feeling a feeling, or is really happy or really upset or just feeling a feeling, and I try to feel it or something and I can't feel it I'm just like, why can't I feel that feeling?</p> <p>ID 4460 (age 13 years): Like the weird thing is, if I get something new, like I, I really want some new stuff, and then if I get them, I, the black hole isn't filled you know? So I need something to fill that black hole, but the other day, well yesterday, when I was about to get my Halloween costume, I didn't want to get it, because I didn't wanna feel the emptiness again. So it's like I wanna get new things, but I'm scared to because I don't want to feel the emptiness.</p> <p>ID 6390 (age 14 years): Depressed is like tired and done, giving up. And empty is like, already kind of gone. I'm not really totally sure if I'm still there.</p> <p>ID 5577 (age 17 years): No, 'cause I know that my emptiness is 'cause I'm trying to not feel what's really there. So it's almost like I'm trying to make myself empty.</p> <p>ID 5821 (age 17 years): Mhm, so, ya, I guess like when I'm feeling really really upset and then I get kind of numb because it hurts less than feeling really really upset.</p>
Identity disturbance	<p>ID 5317 (age 13 years): Kind of weird, like one moment, people call me somethin', like, yeah that's me. And then they'll call me another thing and I'm like, I thought I was this but not this. Like . . . uh, it's confusing.</p> <p>ID 5507 (age 16 years): Like I never find something that defines me as me ID 6390 (age 14 years): I just have a hard time figuring out who I am and like where I belong and where I fit in. And what to do with me.</p> <p>ID 6694 (age 14 years): That's kind of what I was trying to say before about how like I'm kind of directing my life like in a manner that's more like entertaining than anything else. I feel like there's the feeling of Sarah [not the participant's real name], the actor and like what she's trying to convey, which isn't even always what I'm feeling. Sometimes I'll be acting really big but I won't feel that way. And then there's like Sarah, the emotions of Sarah and the director is like, "I'm in the mood for a sad scene today." Or like "Give me something funny." So there are a lot of like different ones.</p> <p>ID 4460 (age 13 years): I don't know who I am, or what I am, or anything. I don't know. I've just tried to be different people, and so . . .</p> <p>ID 5278 (age 17 years): I don't know if I'm a good person, [voice getting softer] or when I do plan revenge or I act those things, I think okay, what kind of person am I? Am I a bad person? I've been trying to find myself for the—and I think I had cleared who I was six months ago but now I again, I have no clue.</p> <p>ID 6694 (age 14 years): I feel a little bit like I have no identity sometimes, yeah. I feel like I often, when I like first meet people, I only act like a chunk of who I am. Like I don't know to like, I don't know how to do it, and like, it becomes really confusing, enough to really know which me is really me. (Why is it confusing?) Because I feel sometimes like a blank canvas a little bit, but sometimes I feel like, a lot of times I find myself doing like, with my actions or with my words, kind of making so that it's not maybe what would be the best for me, but more like what would be the most dramatic.</p>
Paranoid ideation/ dissociation	<p>ID 5821 (age 17 years): Um, I don't trust men at all. Guys, um, my dad I think has messed that up for me. My brother hasn't been great. I've dated a bunch of guys—well not a bunch of guys, I think 3 in the past two years—2 in the past two years [gulps] that have just really like messed me over, so, I don't trust people, I always think that people are, you know, out to get me and um, not necessarily out to get me but going to uh disappoint me and going to leave me or hurt me or you know. Mhm. And then I like doubt myself. And then I like things that I need to validate myself and blah blah blah.</p> <p>ID 6694 (age 14 years): A lot of the time I feel like other people are out to get me and like sometimes my opinions of people can't change and people will try to be nice to me but I think they're being malicious. Stuff like that mostly. (Example?) Yeah, like my friend A, whose the one that was dating R for a really short period of time, after that, I kind of got really suspicious of her and thought like, maybe everything she was doing she was doing with malicious intent. Sometimes she was but a lot of the time she was trying to be my friend, but like, I didn't trust her and I'd like pick out all her flaws. (Does this happen with people you aren't close to?) Um, I guess sometimes. I usually don't go in with like a good expectation of people, I go in with like the expectation that people are going to suck.</p> <p>ID 5443 (age 17 years): I'm too [holds up hands as if to contain something] overwhelmed by my feelings, and too in the middle of them. But sometimes there are moments where I, I think I do it as kind of a coping mechanism where I kind of take myself out of my feelings, um. My psychiatrist says my dad had referred to it as dissociation, where I kind of just, a lot of the time I just like sit in one position, I don't really move any muscles in my body, and it has a really strange but really good feeling throughout my whole body, and um, I don't usually like to talk that much and I, you know, really only move my eyes and sometimes my head when I do it, and it kind of just has a numbing effect but it's also a really good feeling. Um, and I don't really feel any of the crazy emotions that I usually feel when I'm not doing that.</p> <p>ID 4682 (age 17 years): Like it's happened several times in my life where I feel like out of myself. Uhm, it's . . . it's been happening more frequently in the last six months but it's been less intense. And it usually happens when I'm in like a group of friends and I . . . and everybody's having a great time and I feel like, and I'm having fun too, I'm laughing and things are okay, but I feel like I'm not able to absorb the happiness in a normal way. Like, I come face to face to it, and I recognize that it's there, but I'm never able to really grasp it. And that's when I feel separated from myself.</p>

(continued)

Table 4. (continued)

DSM criterion	Quotes from participants
Abandonment fears	<p>ID 6694 (age 14 years): <i>Sometimes I confuse dreams and reality and I can't remember if something really happened or if it was a dream. And sometimes when I get really upset, things feel a little dream-like. And there was one time actually, I forget what the situation was but it was really horrible, my parents found out about something they weren't supposed to find out about. And I was in like my therapist's office and I like jumped up on the table and I was like, "I can do this! 'Cause it's not real! I can do this 'cause this is a dream." And they're like "It's unfortunately not a dream." And I was like "No, like that's just part of the dream. Like I'm going outside now without my shoes 'cause it's a dream."</i></p> <p>ID 6390 (age 14 years): <i>I've always been worried about losing people. (Have you lost people before?) Mhm. (Ya? Physically or emotionally?) Emotionally. [Sniffing] (Who have you lost?) A lot of friends and I feel like I've lost some family too. Ya. [wipes nose] (What do you do when you are worried they'll leave you?) I get really shaky and I just keep thinking about it and worrying about it and I start like crying and just imaging the worst and [voice cracks and trails off] I try to keep it to myself. 'Cause I feel like if I . . . if I reach out to them, I'm just going to push them away. But you know when you're like, when like [points off camera near the door] there's like something over there and you reach for it and you can barely touch it with your fingertips but you can't grab it and you just push it a little bit more and more. I feel like it's like that. (Has that actually happened though?) No, but I've seen it happen with other people and I just don't want [trailing off] (You don't want it to happen to you?) . . . Ya. I don't want to be like the controlling one that makes them stay if they don't want to. (Do anything else to avoid the feeling of being abandoned?) I self-harm. I just . . . (Does it help?) At the time, ya it does. Sometimes I push them away before they get the chance to push me away. Sometimes I, like, go off on them. Or something to push them away before they get the chance to do it themselves.</i></p> <p>ID 6694 (age 14 years): <i>I have a terrifying, crippling fear of abandonment . . . umm I remember I had this situation in 7th grade where I didn't really have any friends, I had a couple. And this new kid came to my school and his name was Gordon [not real name] and he came from this other school and had gotten beat up there so he had to come to my school and he kind of opened up to me about that. And he was in a different grade. And then he kinda realized how unpopular I was and he stopped hanging out with me as much and spread all these rumors about me and at that point I should've been mad but no, instead at that point I was like begging for his approval until like the principal of the school got like told by Gordon that I was stalking him, which Gordon knew I wasn't, but he was just desperate to get me away at that point, I think because he was scared of being beat up again or something. And then umm the principle told me I couldn't talk to Gordon anymore and at that point who would want to talk to him because he was spreading rumors, but I like begged the principal to lift the ban - not because I wanted to talk to him, but because I didn't like the feeling of being restricted from talking to someone. Umm and she never did and it was kind of like my obsession for a very long time and I accredit it as the main traumatic event of my life, even though like it shouldn't have been. And for other people it just would've been a weird bummer thing and for me I like desperately wanted his approval like from that moment forward.</i></p>
Unstable relationships	<p>ID 4460 (age 13 years): <i>Ummm, yes. (Someone you're really close to?) Yes, and it happens over a really small incident. And it goes from loving them to the completely-calling them my enemy. (Most relationships are stormy?) Ya. I'm not really good with relationships. That's why I don't really have any close friends.</i></p> <p>ID 6390 (age 14 years): <i>I get in fights with my friends a lot, like one minute we can be like having fun and then the next minute one of us can say something stupid and we'll go off on one another. Like that. It can be really anyone, like I can be fine with them and just hanging out there and then like a minute later, I'll be like, "Get the hell away from me."</i></p>

into somebody who we know I'm really good at just like, switchin' on the charm.

They also acknowledge that triggers may be benign—ID 5821 (age 17 years):

Umm like things are so insignificant. Like, I'll be okay, okay, okay and I'll stub my toe and then I'll get so upset,

and they describe the intensity and dramatic quality of their emotions—ID 4784 (age 15 years):

And I didn't feel like talking at all, and I didn't really know what to say, and I was just kind of always had that knot in my throat, and I was just so upset and then I just kind of laid on the couch and I just kind of, laid on the pillow and I was just kind of, tears rolling down my face . . .

Suicidal Behaviors. Borderline adolescents have a clear understanding of what is meant by self-harm, and they like to talk about it—ID 5317 (age 13 years):

Fifth grade I cut myself, sixth grade I cut myself, seventh grade is now, I haven't cut myself, but I did once, and that's right there [points to arm] see that scar right there. That was like once—that was like two weeks ago . . . I was hospitalized twice—one in fifth grade, one in sixth grade, and now seventh so. [shrugs].

Adolescents also understand the function of self-harm and suicide attempts as interpersonal—ID 4460 (age 13 years):

Yeah I was in pain, I just threatened to kill myself. My parents were pissing me off, and just to see how their reaction was

or intrapersonal—ID 4682 (age 17 years)

Like it helps me release the anger.

Impulsivity. Of all the types of impulsivity that the CI-BPD asks about, the most commonly endorsed behavior was anger. Patients understood what was meant by drinking, drug taking, promiscuous sex, and illegal activities.

Chronic Emptiness. Chronic emptiness is perhaps the most challenging of all the criteria to ask about given that even adults may not understand what is referred to here. However, adolescents with BPD were able to articulate the criterion with great detail and sophistication, for example, ID 4682 (age 17 years):

Like, like there are things I feel should make me sad and I don't cry about them or I don't . . . I just think about them over and over and over and analyze them and break them down into the tiniest possible pieces and then I feel empty because I never actually absorb any of the emotion-I just analyze it and that makes me feel pretty empty. . . . So I don't feel like I have any emotional responses to things, besides overanalyzing them . . .

Borderline adolescents can also describe the feeling that nothing can compensate for emptiness, for example, ID 4460 (age 13 years):

Like the weird thing is, if I get something new, like I, I really want some new stuff, and then if I get them, I, the black hole isn't filled you know? So I need something to fill that black hole . . .

Adolescents can also describe the difference between depression/hopelessness and emptiness, for example, ID 6390 (age 14 years):

Depressed is like tired and done, giving up. And empty is like, already kind of gone. I'm not really totally sure if I'm still there,

as well as a perceived function of emptiness, for example, ID 5577 (age 17 years):

No, 'cause I know that my emptiness is 'cause I'm trying to not feel what's really there. So it's almost like I'm trying to make myself empty.

Identity Disturbance. Adolescents with BPD clearly describe being unsure of who they are as a person, for example, ID 6390 (age 14 years):

I just have a hard time figuring out who I am and like where I belong and where I fit in. And what to do with me.

Identity disturbance is described in terms of playing a role in life resulting in multiple identities, for example, ID 4460 (age 13 years):

I don't know who I am, or what I am, or anything. ?) I don't know. I've just tried to be different people, and so . . .

Adolescents with BPD can also describe the feeling of defectiveness that often associates with the disorder—that they are bad or evil, for example, ID 5278 (age 17 years):

I don't know if I'm a good person, [voice getting softer] or when I do plan revenge or I act those things, I think okay, what kind of person am I? Am I a bad person? . . .

Paranoid Ideation/Dissociation. Adolescents with BPD were able to describe paranoid ideation and dissociation in a way that is consistent with what is conveyed in the adult criterion, for example, ID 6694 (age 14 years):

A lot of the time I feel like other people are out to get me and like sometimes my opinions of people can't change and people will try to be nice to me but I think they're being malicious . . .

Borderline adolescents are also very articulate about dissociation and know what it means, for example, ID 5443 (age 17 years):

I'm too [holds up hands as if to contain something] overwhelmed by my feelings, and too in the middle of them. But sometimes there are moments where I, I think I do it as kind of a coping mechanism where I kind of take myself out of my feelings . . .

They also describe the “borderline” break with reality that originally coined the diagnosis, for example, ID 6694 (age 14 years):

Sometimes I confuse dreams and reality and I can't remember if something really happened or if it was a dream. And sometimes when I get really upset, things feel a little dream-like . . .

Abandonment Fears. Adolescents with BPD are able to express abandonment fears very articulately, for example, ID 6390 (age 14 years):

I've always been worried about losing people. (Have you lost people before?) Mhm. (Ya? Physically or emotionally?) Emotionally. [sniffing] (Who have you lost?) A lot of friends and I feel like I've lost some family too. Ya. [wipes nose] (What do you do when you are worried they'll leave you?) I get really shaky and I just keep thinking about it and worrying about it . . . I try to keep it to myself. 'Cause I feel like if I . . . if I reach out to them, I'm just going to push them away . . . Sometime I push them away before they get the chance to push me away.

Similar to adult patients, adolescents with BPD go to extreme lengths to avoid feeling abandoned, for example, ID 6694 (age 14 years):

I have a terrifying, crippling fear of abandonment . . . umm I remember I had this situation in 7th grade where I didn't really have any friends, I had a couple. And this new kid came to my school and his name was Gordon [not real name] and he came from this other school and had gotten beat up there . . . and he kind of opened up to me about that . . . And then he kinda realized

how unpopular I was and he stopped hanging out with me as much and spread all these rumors about me and at that point I should've been mad but no, instead at that point I was like begging for his approval . . . And for other people it just would've been a weird bummer thing and for me I like desperately wanted his approval like from that moment forward.

Unstable Relationships. Adolescents with BPD understand the concept of unstable relationships and that their relationships are characterized by alternating between extremes of idealization and devaluation, for example, ID 4460 (age 13 years):

Yes, and it happens over a really small incident. And it goes from loving them to the completely-calling them my enemy . . .

Adolescents with BPD describe how relationships are vulnerable to extreme rupture, for example, ID 6390 (age 14 years):

I get in fights with my friends a lot, like one minute we can be like having fun and then the next minute one of us can say something stupid and we'll go off on one another . . .

In summary, it appears that the adolescent respondents were able to understand the prompts of the BPD criteria.

Discussion

The aim of the current study was to evaluate whether *DSM* criteria operate similarly across adolescents and adults and to determine potential sources of expected differential criterion function. To this end, we made use of a mixed-method design that combined quantitative and qualitative methodology (Creswell, Plano Clark, Gutmann, & Hanson, 2003). First, using IRT methodology, results demonstrated that all BPD criteria showed DIF between adolescents and young adults/adults. For five BPD criteria, lower threshold parameters were observed for adolescents; for the remaining four criteria, lower threshold parameters were observed for adults. Lower thresholds imply that higher ratings are observed at lower levels of the underlying BPD construct continuum. Next, the presence of DIF, focusing only on the estimated population mean for adolescents relative to adults, was evaluated separately for these two "consistent" sets of criteria. The "anchor" set comprised of abandonment fears, unstable relationships, identity disturbance, and emptiness showed no difference in the population means for adolescents and adults. In contrast, the "anchor" set composed of impulsivity, suicidal behaviors, affective instability, uncontrolled anger, and paranoid ideation showed that the estimated population mean for adolescents was a standard unit higher relative to adults. The higher population mean for adolescents implies a higher

level of endorsement for the *DSM* BPD criteria of impulsivity, suicidal behaviors, affective instability, uncontrolled anger, and paranoid ideation.

Our second aim was to use qualitative methodology to investigate possible explanations (sources) for DIF. We evaluated whether DIF could be explained by the fact that we used an adolescent- versus adult-specific assessment tool. Stated differently, DIF may be due to the possibility that the SCID-II and the CI-BPD ask about criteria in different ways. Results of the content comparison did not, however, support this conclusion. Specifically, (1) both tools assess the 9 *DSM* criteria, which form the stems of both assessments and are unchanged across tools; (2) the comparison of content (in Table 3) demonstrates relatively few content differences; and (3) keeping in mind minor content differences, both are semistructured interviews, which means that interviewers have the freedom to deviate from the suggested content to probe the criterion (stem) in idiosyncratic ways. What remains consistent though is the attempt to assess/probe the *DSM* criteria, which are the same across the tools.

Next, using content analyses, we showed that adolescents could elaborate on all BPD criteria in articulate ways, comparable to what clinicians typically hear from adult borderline patients. This was true even for the most abstract of criteria (emptiness, abandonment fears, dissociation, and identity disturbance). From the qualitative analyses, we can conclude that the DIF detected was most likely not due to misunderstanding of *DSM* borderline criteria in adolescents.

The final interpretation of DIF is the possibility that clinical interviewers are using similar thresholds for endorsing certain BPD criteria in adolescents relative to adults but that the adolescents on average report high rates of certain behaviors that actually are typical behavior for that development period; however, the interviewers judge the behavior as diagnostic of BPD. To elaborate further, when using impulsivity, suicidal behaviors, affective instability, uncontrolled anger, and paranoid ideation as the anchor set, the one standard unit higher population mean found for adolescents relative to adults may reflect how interviewers arrived at their ratings for these five criteria. These BPD criteria represent behaviors and cognitions that are typical of the adolescent developmental period. Possibly, interviewers are not taking into account prevalence rates when arriving at their judgments. For instance, data from the Centers for Disease Control and Prevention (CDC, 2016) show that 47% of adolescents in the general population reported having ever had sexual intercourse, and 34% had had sexual intercourse during the previous 3 months. Adolescents between the ages of 12 and 20 years drink 11% of all alcohol consumed in the United States, and more than 90% of this alcohol is consumed during a binge drinking episode (CDC, n.d.). Similarly, 35.8% of teens report using drugs in

their lifetime, 28.4% in the past year, and 17.3% in the past 30 days (Johnston, O'Malley, Bachman, & Schulenberg, 2013). Adolescents aged 15 to 24 years account for 30% and 28% of the total costs of motor vehicle injuries among males and females, respectively, and a 2013 national survey found that 22% of teenagers reported riding with a driver who had been drinking in the previous month (CDC, n.d.). Moreover, among girls, 25.6% report binge eating in the past year (Austin et al., 2008), 24.7% of high school students report physical fights during the past year (CDC, 2014), and 15.2% report stealing (Grant, Potenza, Krishnan-Sarin, Cavallo, & Desai, 2011). Even behaviors that are not typical of all adolescents like suicidal behaviors are more common than expected: 16% of adolescents have seriously considered suicide, 13% have created a plan, and 8% reported trying to take their own life in the past year (CDC, n.d.). Prevalence rates of nonsuicidal self-injury among adolescents ranges from 17% to 22% (Muehlenkamp, Williams, Gutierrez, & Claes, 2009; Swannell, Martin, Page, Hasking, & St. John, 2014). Taken together, it is possible that clinical interviewers/raters are deeming these behaviors as diagnostic rather than exploring other explanations (e.g., that high rates of these behaviors are typical of this developmental stage), and thus, this judgment results in inflated endorsement and overdiagnosis of these criteria.

In contrast, the anchor set composed of abandonment fears, unstable relationships, identity disturbance, and emptiness did not show a difference in the latent construct means between adults and adolescents. While these characteristics have also been described as hallmark features of adolescence (Erikson, 1950; Steinberg, 2005), the fact that they do not show a difference in the latent construct means between adults and adolescents suggest that these features may represent the homotypic features of BPD. Our results suggest that these features that capture the dimension of BPD most explicitly related to disturbances in self and interpersonal processing retain their meaning across developmental periods, in contrast to the more "behaviorally" based criteria of BPD that perhaps more clearly capture the heterotypic features of BPD. Thus, the features of impulsivity, affective instability, and suicidal behaviors are more state dependent and may move in and out of the boundaries of BPD to cross over into other disorders such as depression, bipolar disorder, conduct problems, and substance use disorders—all highly comorbid with BPD. As children age through adolescence into adulthood, they may therefore be diagnosed with these disorders that ultimately culminate in a BPD diagnosis in early adulthood. That the "self/interpersonal" criteria of BPD are more trait dependent, representing the homotypic features of BPD, is consistent with the new *DSM-5* Section III conceptualization of Criterion A. Specifically, Criterion A suggests that disturbances in self and interpersonal function cut across all personality pathology and is a prerequisite to further evaluate elevations on

more specific trait domains in Criterion B. Here, we suggest that the "self/other" interpersonal criteria of BPD (reflected in Criterion A) cut across not only personality disorders (see also Sharp & Fonagy, 2015) but also developmental epochs.

The study has several limitations. First, within-person developmental change rather than group comparison is advantageous in that the former controls for individual differences more rigorously. However, following up a large cohort of individuals with high levels BPD over 30 years on interview-based assessments is seldom feasible. Second, the sample used in the current study was not diverse and cannot generalize to nonclinical samples given the inpatient nature of the sample. The latter, however, afforded us the opportunity to observe adequate base rates of BPD criteria to facilitate IRT and qualitative content analyses. Third, although the use of structured clinical interviews with no skip-out rules was a strength, inter-rater reliability could not be calculated for the young adult and adult samples because audio or video recording the interviews conflicted with hospital policy. That trained master's level research assistants who administered the interviews were thoroughly trained according to SCID-II procedures and engaged in weekly supervision with the senior research team members somewhat addresses this limitation.

In summary, DIF was detected for BPD criteria when comparing adolescents and adults. Three potential explanations for DIF were offered. While it is not possible to completely rule out differences in the assessment instruments or differences in participants' understanding of the BPD criteria as potential explanations for the observed DIF, rater judgment seemed the most compelling interpretation. From a clinical standpoint, this interpretation suggests that interviewers should not only be trained in the clinical administration of tools but also that their training should be contextualized within the course of typical development of BPD-related constructs. This idea is also consistent with one of the core tenets of developmental psychopathology, namely, that typical and atypical development are mutually informative (Cicchetti, 2006; Rutter & Sroufe, 2000). To avoid overdiagnosis of traits typically associated with adolescence, more attention should be paid in training interviewers, researchers, and clinicians about normative patterns of development to appropriately contextualize behaviors and cognitions at the extreme end. Put differently, *DSM* criteria clearly apply to adolescents; however, an important goal for clinical researchers is to develop developmentally informed operational guidelines for the application of these criteria in the assessment of BPD in adolescents.

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Note

1. This two-group full-information IRT analysis showed that the fit of the unidimensional model was satisfactory, $M_2(275) = 938.27$; $p < .001$; RMSEA = .04. However, there was evidence of LD among four BPD criterion pairs for the adult group and one pair for the adolescents. The presence of LD implies that there is more covariation among the criterion pairs than can be accounted for by the unidimensional model. Because the focus here is not to refine the set of BPD criteria but rather to investigate differences in criteria ratings due to age-group, further analyses were done to investigate whether the presence of LD influenced the detection of differences in the ratings due to age. These analyses, evaluating age-group differences with one BPD criterion of the LD pair removed, showed that the LD did not affect the detection of group differences.

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