A preliminary study of the relation between trauma symptoms and emerging BPD in adolescent inpatients

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The relation between trauma and borderline personality disorder (BPD) has been studied in great detail with adults, but few studies have examined this link in adolescents. Furthermore, virtually nothing is known about how different aspects of trauma relate to BPD and whether trauma symptoms reflect actual trauma history in adolescents diagnosed with BPD. Using a sample of 147 adolescent psychiatric inpatients, the authors examined the concurrent link between trauma symptoms, trauma history, and BPD. Findings suggest that adolescents with BPD are more likely than their non-BPD counterparts to have a history of sexual trauma and to report sexual concerns. However, the link between BPD and sexual concerns is not completely explained by increased sexual trauma history in the BPD group, indicating that there is some relation between BPD and sexual concerns independent of trauma history. These findings are discussed within an attachment framework. The preliminary nature of this study is noted and used as the basis for encouraging future research in the area. (Bulletin of the Menninger Clinic, 76[2], 130–146)

Many studies (e.g., Zanarini, Dubo, Lewis, & Williams, 1997) have found a strong link between borderline personality disorder (BPD) in adulthood and childhood trauma, with as many as 85% of BPD patients reporting a history of trauma. For instance, Battle and colleagues (2004) estimated that the prevalence of sex-

ual trauma in BPD-diagnosed inpatient and outpatient samples could be as high as 75%. Furthermore, there is a fair amount of research suggesting that sexual abuse is reported more frequently in the history of adult patients with BPD than any other disorder (Herman, Perry, & van der Kolk, 1989; Ogata, Silk, Goodrich, & Lohr, 1990; Paris, Zweig-Frank, & Guzder, 1994). Similarly, Paris et al. (1994) found that adult women with BPD were significantly more likely to have experienced childhood sexual abuse and more likely to have experienced multiple incidents of abuse than individuals with other personality disorders. Additionally, the two groups differed with regard to the nature of the trauma reported, with BPD patients reporting more abuse from relatives other than parents and nonrelatives and nearly five times the amount of penetration-related abuse compared with the Axis II controls. Ultimately, regression analyses indicated that childhood sexual abuse significantly differentiated between the two groups. Ogata et al. (1990) drew the same conclusion comparing a BPD sample of men and women to a sample with other Axis I disorders, indicating that childhood sexual abuse discriminates BPD from other psychopathology. Although retrospective or cross-sectional research designs such as these cannot establish whether there is a causal relation between childhood sexual abuse and BPD, they do point to sexual abuse as an important etiological factor of BPD.

Several studies with adult samples have also highlighted the role of childhood sexual abuse in determining the severity and constellation of BPD symptoms in adulthood. Specifically, it seems that BPD adults experience trauma that is severe and of long duration. Half of a sample of inpatient adults with BPD, for instance, described being abused throughout childhood and adolescence, for longer than one year, and by two or more perpetrators (Zanarini et al., 2002). The results of Zanarini et al. (2002) suggest that both trauma severity and longevity were significantly related to the overall severity of BPD symptoms and impaired psychosocial functioning. Similarly, childhood sexual abuse has important implications for the lethality of BPD, increasing the likelihood of attempting suicide 10-fold, compared with BPD individuals who did not experience sexual abuse (Soloff, Lynch, &

Kelly, 2002). The increased severity of BPD symptoms in individuals with an abuse history and the close ties between suicide attempts and sexual abuse further underscore the importance of studying abuse as an etiological feature of BPD.

It is important to note that not all individuals with BPD have experienced sexual trauma and that many of the aforementioned studies are concurrent in nature, limiting their impact to a cross-sectional, rather than a causational, interpretation. Nonetheless, the existing adult literature does suggest a strong link between BPD and sexual trauma and stands in contrast to the adolescent literature, in which very little is known about the relation between trauma symptoms and emerging borderline features. In fact, thus far only two studies have explored the apparent link between BPD and trauma in adolescents. Namely, Horesh and colleagues (Horesh, Ratner, Laor, & Toren, 2008; Horesh, Sever, & Apter, 2003) demonstrated that childhood sexual abuse successfully discriminated between patients with BPD and depressed controls using both suicidal and nonsuicidal samples. Still, the number of studies exploring BPD in youth is extremely limited. This lacuna is partly due, no doubt, to controversy surrounding personality disorder diagnosis in adolescents (Paris, 2003; Sharp & Bleiberg, 2007; Vito, Ladame, & Orlandini, 1999). This controversy likely stems from concerns about the stigma (Chanen et al., 2004) attached to a BPD diagnosis and hesitance diagnosing any personality disorder before adulthood. However, there is substantial evidence indicating that developmental trajectories of maladjustment are appropriate for classification (Cicchetti & Cohen, 2006) and that children may exhibit inflexible and maladaptive patterns of perception and interaction with their environment similar to personality disorder regardless of age (Kernberg, Weiner, & Bardenstein, 2000). Additionally, there is evidence that individuals with BPD experience symptoms for years (Paris, 2003) and, on average, present for treatment around age 18 (Zanarini, Frankenburg, Khera, & Bleichmar, 2001), indicating that distressing aspects of the disorder were present in adolescence.

Given the above evidence in support of the borderline construct in adolescence, it is reasonable to argue that many of the findings linking adult BPD with trauma may also be relevant for

adolescents. However, to our knowledge, the present study is only the third to explore sexual abuse among adolescents with BPD. Also, it is the only study, thus far, to include a measure of trauma symptoms in addition to an assessment of sexual abuse and the first to compare adolescents with BPD to a group of psychiatric inpatients (rather than solely depressed patients). Currently, little is known about how different aspects of trauma relate to BPD features and whether trauma symptoms relate to actual trauma history in adolescents. This remains an important area of research to explore in adolescents given the danger for suicide attempts and BPD symptom severity identified among adults with a prior history of abuse. Against this background, the first aim of this study was to determine the relation between BPD and trauma among inpatient adolescents and to explore which aspects of trauma pathology are uniquely associated with BPD. In light of the vast body of literature relating childhood sexual abuse to BPD in adults, we predicted that BPD adolescents would be distinguishable from non-BPD psychiatric controls with regard to sexually oriented trauma symptoms. The second aim was to determine whether the self-reported trauma symptoms endorsed by BPD adolescents were associated with actual trauma history. Again, we expected that the existing literature in adults would hold true for adolescents with BPD, with them endorsing more trauma symptoms because of a higher prevalence of sexual trauma history.

Method

Participants
Adolescents (*N* = 189) were recruited from a 16-bed adolescent inpatient unit that usually serves adolescents with severe behavior, psychiatric, and substance disorders who are characterized as treatment refractory. While the unit was in principle open to patients with all mental disorders, the study adopted the following exclusion criteria: (1) diagnosis of schizophrenia or any psychotic disorder, and/or (2) diagnosis of mental retardation. Inclusion criteria were age between 12 and 17 and English fluency. As a result, 7 adolescents were excluded from the study. Additionally,

16 declined, 2 revoked consent, and 7 were discharged prior to being assessed, leaving 157 adolescents in the sample. Additionally, participants with missing data on the Childhood Interview for *DSM-IV* Borderline Personality Disorder ($n = 8$) and Trauma Symptom Checklist ($n = 2$) were excluded from analyses, leaving a sample of 147 adolescents with complete data.

Measures

Borderline personality disorder. The Childhood Interview for *DSM-IV* Borderline Personality Disorder (CI-BPD; Zanarini, 2003) is a semistructured interview that assesses *DSM-IV* BPD in latency-age children and adolescents. It was adapted for use in youth from the Diagnostic Interview for Personality Disorders. After asking a series of corresponding questions, the interviewer rates each *DSM*-based BPD criterion with a score of 0 ("absent"), 1 ("probably present"), or 2 ("definitely present"). The nine criteria assessed are inappropriate and/or intense anger, affective instability, chronic feelings of emptiness, identity disturbance, stress-related paranoid ideation or dissociation, efforts to avoid abandonment, recurrent suicidal behaviors, impulsivity, and a pattern of unstable interpersonal relationships. A patient meets criteria for BPD if five or more criteria are met at the 2-level. The internal consistency of the CI-BPD in this sample was good with a Cronbach's alpha of .80.

Trauma symptoms. The Trauma Symptom Checklist (TSCC; Briere, 1996) is a 54-item self-report measure that evaluates post-traumatic symptomatology in children and adolescents. This scale does not measure whether actual trauma has occurred. Instead, it measures potential pathological reactions in response to trauma. It therefore includes six clinical subscales, including anxiety, depression, posttraumatic stress, sexual concerns, dissociation, and anger. The frequency of each symptom is rated on a 4-point scale ranging from 0 ("never") to 3 ("almost all of the time"). Of particular interest for this study was the sexual concerns subscale of the TSCC. This subscale assesses sexual distress and preoccupation generally, and includes nonsymptomatic sexual items (e.g., "Thinking about having sex") as well in order to establish the developmental appropriateness and frequency of otherwise

typical thoughts. Atypical sexual thoughts and feelings, though, dominate the subscale and include items that pull for sexual conflicts (e.g., "Thinking about sex when I don't want to"), negative associations with sexual topics (e.g., "Getting upset when people talk about sex"), or fear of sexual exploitation (e.g., "Not trusting people because they might want sex"). For the main analyses, TSCC T-scores were used because these are the normed and standardized scores for this measure; however, raw scores were also used in order to compare the present sample to the raw score means and standard deviations reported for the measure in a community sample (Briere, 1996). The internal consistency of the TSCC in this sample was good with a Cronbach's alpha of .97.

History of sexual abuse and psychopathology. The Computerized Diagnostic Interview Schedule for Children (C-DISC; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000) is a highly structured clinical interview used to diagnose psychiatric disorders in children and adolescents between the ages of 9 and 17. While it is designed to be administered by lay interviewers, all adolescents in this study were interviewed by doctoral psychology students or clinical research assistants who had completed training and several practice sessions administering the interview under the supervision of the third author (C.S.). For the purposes of this study, the question assessing a history of sexual abuse was considered. The question is phrased, "Have you ever been very upset by someone forcing you to do something sexual that you really didn't want to do?" and a *yes* or *no* answer is recorded. Additionally, comorbidity of the two groups was determined using positive *DSM* diagnoses on this measure. For the purposes of this study, only "Positive Diagnoses" that meet all *DSM* criteria on the clinical report of the C-DISC were considered.

Procedures
The study was approved by the appropriate institutional review board. All adolescents admitted to an inpatient psychiatric unit were approached on the day of admission about participating in this study. Informed consent from the parents was collected first, and if granted, assent from the adolescent was obtained in person. Adolescents were then consecutively assessed by doctoral-level

clinical psychology students, licensed clinicians, and/or trained clinical research assistants. Diagnostic interviews were conducted independently and in private with the adolescents according to the standard procedures of the C-DISC previously described. Because this study was conducted in a naturalistic setting, the order of assessments was random in most cases. All adolescents were assessed within the first 2 weeks following admission. The average length of stay in this program is 5 to 7 weeks.

Results

Preliminary analyses
The final sample consisted of 147 adolescents with a mean age of 16.04 (*SD* = 1.45). The sample contained 83 (56.5%) females and 64 (43.5%) males and had the following ethnic breakdown: 92.5% White, 2.7% Hispanic, 1.4% Asian, 1.4% Black, 0.7% mixed, and 0.7% unreported. Thirty-four adolescents (23.1% of the sample) met diagnostic criteria for BPD. Among those who met criteria for BPD, 82.4% were female compared with 48.7% female in the non-BPD group. Therefore, Pearson chi-square analyses were conducted in order to determine the relation between sex and BPD status. Because this relation proved significant (χ^2 = 12.06, *p* = .001), it was controlled for in subsequent analyses. We also conducted independent sample *t*-tests to compare BPD versus non-BPD on the basis of age, and no significant difference was noted.

Positive C-DISC diagnoses were used to assess comorbidity within the sample by BPD status and revealed that a large percentage of individuals with BPD also meet criteria for at least one other disorder. Information concerning comorbid diagnoses of both the BPD and non-BPD groups is presented in Table 1. In fact, the median number of diagnoses in the BPD group was four, which was more than the median number of diagnoses for the non-BPD group, whose median number of comorbid Axis I disorders was one.

Means and standard deviations for TSCC subscale raw scores in the present sample appear in Table 2 in order to allow comparison with the community sample on which normative data for the

Table 1. Comorbid diagnoses by BPD status

	No BPD (*n* = 113)	BPD (*n* = 34)
Social Phobia	*n* = 23, 20.35%	*n* = 5, 14.71%
Separation Anxiety Disorder	*n* = 12, 10.62%	*n* = 9, 26.47%
Specific Phobia	*n* = 12, 10.62%	*n* = 10, 29.41%
Panic Disorder	*n* = 13, 11.50%	*n* = 9, 26.47%
Agoraphobia	*n* = 12, 10.62%	*n* = 4, 11.76%
Generalized Anxiety Disorder	*n* = 6, 5.31%	*n* = 7, 20.59%
Obsessive Compulsive Disorder	*n* = 23, 20.35%	*n* = 19, 55.88%
Posttraumatic Stress Disorder	*n* = 6, 5.31%	*n* = 8, 23.53%
Anorexia Nervosa	*n* = 4, 3.54%	*n* = 4, 11.76%
Bulimia Nervosa	*n* = 2, 1.77%	*n* = 2, 5.88%
Major Depressive Disorder	*n* = 36, 31.86%	*n* = 18, 52.94%
Dysthymia	*n* = 1, 0.88%	*n* = 1, 2.94%
Mania	*n* = 5, 4.42%	*n* = 3, 8.82%
Hypomania	*n* = 3, 2.65%	*n* = 2, 5.88%
Schizophrenia	*n* = 0, 0%	*n* = 0, 0%
Attention Deficit Hyperactivity Disorder	*n* = 17, 15.04%	*n* = 10, 29.41%
Oppositional Defiant Disorder	*n* = 15, 13.27%	*n* = 16, 47.06%
Conduct Disorder	*n* = 16, 14.16%	*n* = 16, 47.06%

Note. Positive diagnoses were determined using the Computerized Diagnostic Interview Schedule for Children (C-DISC; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000).

measure was collected (Briere, 1996). Across most subscales and both sexes, the present sample reported higher raw scores than the standardization sample, suggesting that the present sample (recruited from an inpatient unit) has greater trauma symptoms than a community sample of comparable age. The only subscale for which this conclusion did not hold was Anger, on which the normative sample of males and the present sample of males had the same mean raw score.

The relation between trauma symptoms and BPD status
The first aim of the present study was to investigate the relation between trauma symptoms and BPD status. Accordingly, participants were assigned to a *BPD* (*n* = 34) or *No BPD* (*n* = 113) group based on whether they met diagnostic criteria on the CI-

Table 2. TSCC raw scores in the present sample and the
community based standardization sample from Briere (1996)

| | Males | | | | Females | | | |
| | Present Sample | | Briere (1996) | | Present Sample | | Briere (1996) | |
Scale	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Anxiety	6.0	4.8	4.5	3.9	8.8	6.1	7.0	4.7
Depression	8.8	6.2	4.5	4.0	11.8	6.2	7.9	5.5
Anger	8.3	6.0	8.3	6.1	9.4	6.4	9.3	6.3
Posttraumatic Stress	8.8	6.1	6.7	5.1	11.8	6.8	9.9	6.4
Dissociation	8.8	6.7	6.2	4.9	10.2	6.3	7.9	5.5
Sexual Concerns	5.9	4.5	3.8	3.3	6.1	5.4	3.0	2.2

Note. TSCC = Trauma Symptom Checklist for Children. The Briere (1996) sample was collected from three nonclinical samples (total N = 3008) and the present sample data are from an inpatient sample (N = 147). The present sample recruited adolescents between the ages of 12 and 17, whereas the Briere (1996) normative data are from adolescents between the ages of 13 and 16. The table is organized by sex in order to approximate the data presented for the normative sample.

BPD. A series of independent sample *t*-tests with BPD status as independent variable and trauma subscales and age as dependent variables were conducted and the results are presented in Table 3. The Sexual Concerns subscale was the only subscale on which BPD subjects differed from psychiatric controls (t = –2.17, p < .001).

Next, both sex and TSCC Sexual Concerns were entered as predictor variables into a binary logistic regression analysis with BPD status as the outcome variable. When all predictor variables were entered into the model simultaneously, the TSCC Sexual Concerns subscale retained significance (B = 0.022, p = .016) after controlling for sex (B = –1.53, p = .002).

The relation between trauma symptoms and actual trauma history

The second aim was to determine whether the self-reported trauma symptoms endorsed by BPD adolescents associate with their trauma history. A total of 14.3% of our sample, regardless of BPD diagnosis, endorsed sexual trauma. The Pearson chi-square was conducted in order to determine the relation between sexual trauma and BPD status (χ^2 = 9.48, p = .002) and revealed a sig-

Table 3. **Independent sample t-tests by BPD status**

	No BPD (*n* = 113) *M* (*SD*)	BPD (*n* = 34) *M* (*SD*)	*t*
Age	16.06 (1.44)	15.98 (1.48)	0.29
TSCC Anxiety	51.85 (11.36)	54.50 (19.04)	−0.77
TSCC Depression	56.11 (12.80)	60.56 (18.77)	−1.58
TSCC Anger	48.25 (8.77)	51.59 (17.21)	−1.09
TSCC Posttraumatic Stress	52.03 (10.46)	53.29 (17.35)	−0.41
TSCC Dissociation	52.75 (11.81)	56.53 (19.03)	−1.10
TSCC Sexual Concerns	56.93 (16.82)	69.23 (31.89)	−2.17*

Note. TSCC = Trauma Symptom Checklist for Children. *p < .05.

nificant group difference with regard to trauma history. Specifically, adolescents who had experienced past sexual trauma made up 52.6% of the BPD group and 17.5% of the non-BPD group. To determine whether the increased rate of past sexual trauma accounted for the relation between BPD and sexual concerns identified in the first regression analysis, a second binary logistic regression was conducted. In this model, sex, TSCC Sexual Concerns, and the sexual trauma item were entered simultaneously as predictor variables. The TSCC Sexual Concerns subscale (*B* = 0.024, *p* = .042) and sexual trauma history item (*B* = 1.26, *p* = .039) retained significance, although sex (*B* = −0.92, *p* = .144) did not.

Discussion

The results of the present study indicate that adolescents with BPD do not differ from psychiatric controls with regard to anxious, depressed, angry, posttraumatic, or dissociative trauma symptoms. The only scale that successfully distinguished between these two groups was the scale assessing sexual concerns. Moreover, the relation between sexual concerns and BPD status remained significant when actual trauma history was controlled for, indicating that sexual concerns and sexual trauma history both make independent contributions to BPD status. Ultimately, our findings indicate that adolescents with BPD are more likely to have experienced sexual trauma than their inpatient counterparts

and that they are more likely to report sexual concerns regardless of trauma history. In other words, the higher prevalence of sexual trauma in the BPD group does not completely account for their greater endorsement of the Sexual Concerns subscale. Finally, the present study also suggests that inpatient adolescents report greater trauma symptoms than the normative sample (made up of adolescents from the community sample; Briere, 1996), adding to the validity of the measure, although statistical comparisons and, therefore, further conclusions as to the significance of these differences, were not possible in the present study.

These findings are surprising because, although the link between sexual trauma and BPD is well documented, no research, to our knowledge, has identified or explained the relation between BPD and sexual concerns not accounted for by trauma history. Although the present report did not include measures of attachment security, and thus cannot draw conclusions about its role in the relation between sexual concerns and BPD, attachment theory serves as a useful foundation for interpreting this finding. Countless conceptualizations of BPD place attachment insecurity at the core of the disorder (Agrawal, Gunderson, Holmes, & Lyons-Ruth, 2004), no doubt because of prominent interpersonal difficulties and abandonment fears associated with the disorder. The latter is a core feature of BPD (American Psychiatric Association, 2000) explained by some (Gunderson, 1996) as the result of attachment failures in early childhood. Indeed, Agrawal and colleagues (2004) review a great deal of evidence suggesting an association between insecure attachment and BPD (Barone, 2003; Dutton, Saunders, Starzomski, & Bartholomew, 1994; Fonagy et al., 1996; Rosenstein & Horowitz, 1996; West, Keller, Links, & Patrick, 1993). According to the wealth of attachment theory and, perhaps most notably John Bowlby (1973), early attachment to caretakers continues to influence expectations and experiences of later relationships. Specifically, securely attached children develop internal models of the self as lovable and expect others to be accepting while insecurely attached children will view the self as unlovable and perceive others with mistrust and skepticism (Fraley, Davis, & Shaver, 1998).

Not surprisingly, individuals diagnosed with BPD are more likely than their counterparts to struggle with attachment insecurity and, in adolescence specifically, these insecurities and associated abandonment fears may begin to manifest in new ways. In fact, adolescence is widely understood as representing a shift from the same-sex peer groups of early and middle childhood to sexual relationships (Brown, 2004), with as many as 50% of adolescents engaging in romantic relationships by mid-adolescence and nearly 100% doing so by late adolescence (Connolly, Craig, Goldberg, & Pepler, 1999). Thus, it follows that the attachment insecurity that children display in reference to caretakers will emerge in adolescence as difficulties with romantic partners. In other words, the concerns associated with caregiver availability in childhood give way to concerns associated with intimate relationships. Coupled with the onset of sexual maturity and the emergence of sexual relationships, it seems likely that attachment insecurity will produce excessive sexual concerns in adolescence. Our data cannot speak to this speculative prediction directly, and future research should focus on clarifying whether it is indeed the attachment insecurity characteristic of BPD, rather than solely a greater sexual trauma history, that may account for the high level of sexual concerns in the BPD patients.

Despite our efforts to address an important question in adolescent mental health, these findings are subject to a number of important limitations due to the preliminary nature of this investigation. Most notably, the choice of measures in the current study mandates further studies using more sophisticated measures of trauma symptoms and trauma history. In particular, the measure of sexual trauma employed here gives only a very general description of whether or not sexual trauma has taken place. Because we have no information beyond whether or not trauma occurred, we cannot make conclusions about the specific importance of different types of sexual trauma. Several studies in adults (Paris et al., 1994; Soloff et al., 2002; Zanarini et al., 2002) have found that individuals with BPD differ from individuals with other psychiatric illness with regard to specific parameters of abuse, including duration and relation to the perpetrator. Because the present study did not use a specific measure of sexual trauma

that probed for this level of detail, no such conclusions can be drawn from this sample. Because sexual abuse is common in both BPD and other types of mental illness, research exploring the nature of sexual trauma uniquely associated with BPD in greater detail is still needed with adolescent samples. Similarly, we have no information about how the traumatic incident was handled by the adolescents and/or their families, meaning that we are unable to determine whether it is the presence of sexual trauma or the context in which that trauma occurred or was processed that is associated with BPD status in adolescence. Furthermore, the question used to assess sexual trauma ("Have you ever been very upset by someone forcing you to do something sexual that you really didn't want to do?") does not specifically differentiate between sexual abuse such as molestation by a family member and a forceful sexual experience with a peer and therefore muddles important distinctions within sexual abuse, such as the role of the perpetrator, the balance of power in the relationship, and the presence of incest.

A second important limitation of the present study is the use of a measure assessing a relatively understudied construct. Specifically, the TSCC is unique in that it is not a measure of trauma history or general psychopathology but rather a measure of "posttraumatic distress and related psychological symptomatology" (Briere, 1996, p. 1). In this study, the clinical scales (i.e., Anxiety Depression, Anger, Posttraumatic Stress, Dissociation, and Sexual Concerns) were used. Although the Sexual Concerns scale was the only scale that successfully distinguished between the BPD and non-BPD groups, the lack of significance related to the other scales is difficult to interpret given the nature of this measure. Specifically, we cannot discern, from the professional manual or existing literature associated with the TSCC, to what extent the clinical scales mirror general psychopathology. Clearly, the measure is not sufficient to make a full diagnosis of depression or anxiety. Still, the real meaning of elevated scores on any subscale, particularly those with an associated diagnostic classification (i.e., Depression, Anxiety, and Posttraumatic Stress), remains unclear. Furthermore, individuals with BPD often demonstrate significant levels of comorbid psychopathology (Zanarini et al., 1998), in-

cluding depression and anxiety, and thus the lack of significant difference between the BPD and non-BPD groups on those subscales of the TSCC is unusual. Although this finding may be explained by a very high level of impairment in the non-BPD group, it may also suggest that those scales of the TSCC are not functioning as expected and require modification. Moreover, although assessing the construct validity of the TSCC was not an aim of this study, the presence of sexual trauma symptoms (i.e., on the Sexual Concerns subscale) unaccounted for by a sexual trauma history was unexpected and warrants further investigation about the nature of trauma symptoms. Ultimately, more information elucidating the particular meaning of these trauma symptom subscales and their relation to trauma symptoms and trauma history is needed to adequately interpret these subscales.

Notwithstanding these limitations, several aspects of this study make it a valuable, albeit preliminary, addition to the literature on BPD in adolescents. First, the sufficiently large sample considered here allowed us to compare adolescents with BPD to adolescents of comparable age and developmental stage who were hospitalized for similar problems in the same hospital. Importantly, comparing the BPD group to other adolescents in psychiatric care allowed us to identify the contribution that sexual trauma has on BPD specifically. Because sexual trauma history is implicated in a large number of psychiatric disorders, parceling out the unique importance of sexual trauma in the BPD group by making use of psychiatric controls is an advantage of this study design. Second, the use of a mixed-gender sample allows us to draw conclusions about the way that BPD manifests in adolescents in general, not simply young men or women. Given the potentially confounding effect of gender on any variables of a sexual nature (e.g., sexual concerns), including both young men and women in the sample allowed us to identify effects over and above gender differences by controlling for sex. Finally, and perhaps most importantly, this study addresses a currently underdeveloped area in personality disorder research. Specifically, this is only the third study to explore the role of sexual trauma in adolescent BPD, and it is the first to identify sexual trauma as a feature that distinguishes between BPD and general psychiatric inpatients (not only a de-

pressed group as in Horesh et al., 2003, 2008). Thus the present study builds upon the very limited research that currently addresses the role of sexual trauma in adolescent BPD and draws attention to the importance of childhood sexual abuse as a serious health concern and area of future research.

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