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Social and Academic Functioning in Adolescents with Child Sexual Abuse-Related PTSD

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Abstract

Objective—This study examined the relationship between posttraumatic stress disorder (PTSD) and functioning in academic and social domains.

Method—Ninety treatment-seeking adolescent females with a history of child sexual abuse (CSA) completed a trauma history interview, the Child PTSD Symptom Scale – Interview, and the Child Behavior Checklist – Youth Self-Report.

Results—PTSD symptom severity was significantly related to poorer social competence, but was not significantly related to self-reported academic performance. The Avoidance subscale was significantly related to social functioning, whereas the Arousal and Re-experiencing subscales were not.

Conclusion—The results suggest that symptoms of PTSD, and avoidance symptoms in particular, are related to decreased social functioning but not academic functioning in adolescent victims of CSA. These results are consistent with findings that PTSD is a risk factor for relationship problems in adults (e.g., McFarlane & Bookless, 2001; Riggs, Byrne, Weathers, & Litz, 1998) and suggest that the onset of social impairment may be as young as adolescence.

Keywords

Adolescents; child sexual abuse; post-traumatic stress disorder; social functioning; academic functioning

Although child sexual abuse (CSA) has been associated with a host of psychological problems, one of the most frequently linked disorders is posttraumatic stress disorder

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(PTSD; Famularo, Kinscherff, & Fenton, 1992; Merry & Andrews, 1994). PTSD is characterized by intrusive reexperiencing symptoms, avoidance behaviors, and elevated arousal (American Psychiatric Association, 1994), and is associated with widespread functional impairments and low quality of life (Giaconia et al., 1995; Zayfert, Dums, Ferguson, & Hegel, 2002). Although less is known about the effects of PTSD on functioning during adolescence than in adulthood, there is some evidence that PTSD has a deleterious effect on adolescent social and academic functioning. For example, in a community sample of adolescent girls, those with PTSD were significantly more likely to report having failed a class or grade, been suspended from school, or been arrested (Lipschitz, Rasmusson, Anyan, Cromwell, & Southwick, 2000). Similarly, in a study of adolescents who survived a sinking ship, Bolton et al. (2004) found that PTSD symptoms were associated with impairments in friendships and social functioning. However, no studies to date have examined the effects of PTSD symptom severity on functioning specifically among adolescent survivors of CSA. Examining psychosocial impairments among adolescents with CSA-related PTSD is important in order to identify the consequences of PTSD at this developmental stage as well as to inform intervention strategies designed specifically for adolescents.

This study examines the effects of CSA-related PTSD on social and academic functioning in adolescents. We hypothesize that: 1) increased symptom severity of PTSD will be associated with decreased social functioning; and 2) increased symptom severity of PTSD will be associated with decreased academic functioning. In addition, this study explores the relationship between the PTSD symptom clusters and functioning areas as well as the relationships between trauma characteristics and functioning.

Method

Participants

Participants were adolescents seeking treatment for PTSD at Women Organized Against Rape (WOAR), a community mental health clinic in Philadelphia that provides counseling to survivors of rape and childhood sexual abuse.

Adolescents with a primary diagnosis of chronic or subthreshold PTSD (1 re-experiencing symptom, 2 avoidance symptoms, and 2 hyperarousal symptoms) resulting from sexual assault or attempted sexual assault were eligible to participate. Adolescents with conduct disorder or with other primary diagnoses (e.g., mental retardation, eating disorders) were excluded. Adolescents with alcohol or substance dependence and those reporting imminent suicidal ideation with intent were also excluded.

Of the 115 adolescent girls who completed pretreatment evaluations to assess study eligibility, 25 did not enter the study because they met study exclusion criteria. All of these girls were either referred to WOAR's open clinic or given referrals appropriate to the circumstances, such as referrals for psychiatric evaluation. Ninety girls met inclusion criteria for the study, agreed to participate, and either had a guardian who gave parental consent (if under the age of 18) or gave consent to participate themselves (if aged 18). Participants were aged 13–18 ($M=15.34$, $SD=1.54$). Fifty (56%) were African-American, 22 (24%) were Caucasian, 12 (13%) were of Spanish origin, 5 (6%) were biracial, and 1 (1%) was Native American.

Measures

Child PTSD Symptom Scale – Interview (CPSS-I; Foa, Johnson, Feeny, & Treadwell, 2001)—The CPSS is a 24-item measure used to assess PTSD diagnosis and symptom severity in children ages 8–18 years who have experienced a trauma. Seventeen of

the 24 items on the CPSS correspond to DSM-IV symptoms of PTSD. These items are rated on a scale from 0 to 3; thus, the total score can range from 0 to 51. Internal consistency was .80 for the total and subscale scores. An additional seven items that inquire about daily functioning (e.g. relationships with friends, schoolwork) are rated as either absent (0) or present (1) and yield a total impairment severity score ranging from 0 to 7 (Foa et al., 2001).

The CPSS-I has been found to be a reliable and valid measure of PTSD symptom severity in school-age children exposed to natural disasters (Foa et al., 2001). The CPSS-I has demonstrated excellent test-retest reliability ($r = .86$), inter-rater reliability ($r = .87$), and convergent validity with the PTSD module of The Schedule of Affective Disorders and Schizophrenia for School-Age Children –Revised for DSM-IV (K-SADS; Orvaschel, Lewinsohn, & Seeley, 1995) (Gillihan, Conklin, Aderka, Capaldi, & Foa, in press).

Trauma History Interview (THI; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992)—The THI is a brief version of the Standardized Assault Interview (SAI) that was used to identify the target trauma. The SAI has a demonstrated inter-rater reliability of .90 (Rothbaum et al., 1992).

Child Behavior Checklist-Youth Self Report (CBCL-YSR; Achenbach & Rescorla, 2001)—The CBCL-YSR is a widely used, 112-item self-report measure of functioning across several domains for children aged 11–18. All scales of the CBCL have been found to discriminate significantly between children referred for mental health problems and demographically matched, non-referred children (Achenbach, Howell, Quay, Conners, & Bates, 1991). The Social Competence subscale and Mean School Performance, which are both subscales of the overall competence scale, served as the primary outcome measures in this study.

Procedure

Potential participants completed a diagnostic assessment at WOAR that included an assessment of trauma history, social and family functioning, and drug and alcohol use. Adolescents were administered the CPSS-I during the routine WOAR intake. Adolescents who met study criteria were invited to participate in a treatment-outcome study. After obtaining informed consent (or consent by guardian and assent by adolescent for participants aged 17), participants met with an Independent Evaluator (IE) for a baseline assessment, which included semi-structured clinical interviews to determine diagnosis of PTSD and co-morbid problems and dimensional measures of PTSD and co-morbid symptoms. Participants also completed self-report measures (including those listed above) to assess psychopathology, cognition, emotion, and treatment expectancy. Baseline data were used for the current study.

Data Analytic Approach

Trauma types were divided into one of three categories: *Rape* was defined as a single incidence of sexual trauma in which vaginal penetration occurred, *sexual assault* was defined as a single incidence of sexual trauma that did not include vaginal penetration, and *sexual abuse* was defined as rape or sexual assault that occurred more than one time. The victim's relationship to the perpetrator was also divided into one of three categories: Strangers, acquaintances, and friends were categorized as *nonrelatives*; step-parents, step-siblings, mother's lovers, and godparents were categorized as *non-blood relatives*; and all immediate family members, including grandparents, were categorized as *blood relatives*. CBCL scores were coded using Assessment Data Manager Program (ADM; Achenbach, 1991).

Pearson correlations were used to examine the relationships between PTSD symptom severity and academic and social functioning, as well as the relationship between PTSD symptom clusters and functioning. ANOVA analyses were used to examine the relationship between characteristics of the trauma and academic and social functioning.

Results

Sample Characteristics

Table 1 shows the means and standard deviations for all study variables. Mean total and subscale scores on the CPSS-I were in the high PTSD range (Foa et al., 2001). Fifty-five percent ($n = 33$) of adolescents reported levels of social competence in the borderline-clinical or clinical range on the YSR (t -score = 40), indicating that they perceived themselves as having lower competence than 84% of the national normative sample.

Over half the sample, 49 (54%) participants, reported sexual abuse, 27 (30%) reported rape, and 14 (16%) reported sexual assault as the target trauma. The mean number of trauma incidents was 29.78 (41.99); however, the distribution was bimodal, with 37 (41%) participants reporting a single trauma incident and 23 (26%) reporting chronic victimization that was difficult to quantify; this response was coded as 99 victimizations. One-third of participants (33%) reported that the perpetrator was a blood relative, 29% indicated that the perpetrator was a non-blood relative, and 38% reported that the perpetrator was a nonrelative. The average age when the trauma occurred was 11.31 ($SD=4.28$). The average number of years since the abuse occurred was 4.32 ($SD=4.10$).

PTSD Symptom Severity and Functioning

Higher total PTSD symptom severity was associated with lower social functioning, $r = -.304$, $p < .05$. There was a nonsignificant correlation of $-.057$ ($p = \text{n.s.}$) between symptom severity and academic performance. Higher scores on the Avoidance subscale were significantly associated with lower social functioning, $r = -.343$, $p < .01$, whereas scores on the Arousal and Reexperiencing subscales were not related to social functioning, $r = -.198$ ($p = \text{n.s.}$) and $r = -.085$ ($p = \text{n.s.}$), respectively. There was no relationship between any of the three symptom clusters and academic functioning (all $ps > .05$).

Trauma Characteristics and Functioning

One-way ANOVAs revealed that there was no significant effect of trauma type or of perpetrator relationship on either social or academic functioning (all $ps > .05$).

Discussion

This study examined the relationship between PTSD symptom severity and academic and social functioning in a sample of treatment-seeking adolescent females with a history of CSA. As hypothesized, greater PTSD symptom severity was associated with worse social functioning. This finding is consistent with previous work by Bolton et al. (2004) and demonstrates that the impact of PTSD on social functioning extends to adolescent victims of CSA. Our results further show that certain PTSD symptoms such as avoidance of trauma-related reminders, feeling distant or cut-off from others, and emotional numbness are particularly detrimental to social functioning. This finding is consistent with the notion that PTSD symptoms are highly disruptive to attachment behavior and intimacy, leading to widespread negative effects on interpersonal relationships (McFarlane & Bookless, 2001).

The negative effects of PTSD on social functioning may be broad and long lasting. Previous research has shown that PTSD is associated with relationship distress and relationship

problems (Riggs, Byrne, Weathers, & Litz, 1998) and anxiety disorders in general are associated with a poor quality of life (QOL), especially in terms of social functioning (Olatunji, Cisler, & Tolin, 2007). Furthermore, the adverse impact of psychological disorders on QOL has been shown to persist longer than one year (Bijl & Ravelli, 2000). Thus, there is reason to suspect that adolescent girls with CSA-related PTSD are at risk for long-term problems in terms of poor QOL, and impaired interpersonal functioning in particular. One implication of these findings is that providing effective treatment for PTSD to adolescent victims of CSA may prevent potentially long-lasting and disabling impairments in interpersonal functioning.

The hypothesis that greater PTSD symptom severity would be associated with poorer academic functioning was not supported. Although this finding is consistent with some previous work (e.g., Bolton et al., 2004), it contrasts with results from three studies that found greater academic functioning impairment among adolescents who reported CSA (Phasha, 2008) and those who were diagnosed with PTSD (Giaconia et al., 1995; Lipschitz et al., 2000). The discrepant results may be due to the differing measures of academic functioning used across studies. In the current study, participants reported perceived levels of academic competence for up to seven school subjects. The CBCL-YSR does not include questions about discipline problems or students' grade point averages, which have been used in the past studies to assess academic functioning (Giaconia et al., 1995; Lipschitz et al., 2000; Phasha, 2008).

There are several study limitations that should be noted. First, data were collected cross-sectionally, which prevents causal interpretations of the findings. Longitudinal data are needed to rule out the possibility that adolescents with poor social functioning are at greater risk for developing PTSD. Second, all participants were female, so the results may not generalize to male adolescent CSA survivors with PTSD. Finally, all participants were survivors of CSA, so the results may not generalize to adolescents who have PTSD but have experienced different traumas. These limitations notwithstanding, this is the first study to show that severity of PTSD symptoms and level of social functioning are related in adolescent girls with CSA-related PTSD. The authors call for future replication and extension of the current study. Possible extensions include the use of longitudinal data, the addition of grade point average and discipline problems in the measures of academic functioning, and the inclusion of a sample that includes both female and male survivors of childhood sexual, physical, and/or emotional abuse. A study that addresses these points would add to the growing literature of the functional outcomes of victims of these types of traumas. By investigating the links between PTSD symptom severity and functioning in adolescents, this paper sheds light on the importance of social and academic functioning in adolescents. Early identification and rehabilitation of deficits in social functioning during treatment of PTSD will help ensure that as many youth as possible have the opportunity to enjoy school and become full participants and contributors to society.

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Table 1

Means and Standard Deviations of Major Study Variables

Measure	<i>n</i>	<i>M</i>	<i>SD</i>
CPSS: Total	90	28.12	7.52
CPSS: Reexperiencing	90	7.49	2.86
CPSS: Avoidance	90	10.63	4.10
CPSS: Arousal	90	9.93	3.15
CBCL-YSR: Social Competence	61	2.03	.71
CBCL-YSR: Mean Academic Performance	64	6.43	3.06

Note. CPSS = Child PTSD Symptom Scale; CBCL-YSR = Child Behavior Checklist – Youth Self-Report