Empirical Support for the Definition of a Complex Trauma Event in Children and Adolescents

Rachel Wamser-Nanney and Brian R. Vandenberg
Department of Psychology, University of Missouri- St. Louis, St. Louis, Missouri, USA

Complex trauma events have been defined as chronic, interpersonal traumas that begin early in life (Cook, Blaustein, Spinazzola, & van der Kolk, 2003). The complex trauma definition has been examined in adults, as indicated by the Diagnostic and Statistical Manual of Mental Disorders (4th ed.; DSM-IV) field trial; however, this research was lacking in child populations. The symptom presentations of complexly traumatized children were contrasted with those exposed to other, less severe trauma ecologies that met 1 or 2 features of the complex trauma definition. Included in this study were 346 treatment-seeking children and adolescents (ages 3–18 years) who had experienced a traumatic event. Results indicated that child survivors of complex trauma presented with higher levels of generalized behavior problems and trauma-related symptoms than those who experienced (a) acute noninterpersonal trauma, (b) chronic interpersonal trauma that begins later in life, and (c) acute interpersonal trauma. Greater levels of behavioral problems were observed in children exposed to complex trauma as compared to those who experienced a traumatic event that begins early in life. These results provide support for the complex trauma event definition and suggest the need for a complex trauma diagnostic construct for children and adolescents.

A substantial number of children and adolescents experience traumatic events. It is the unfortunate reality, however, that some of these youth experience severe, multiple, prolonged traumas. One study found that 22% of surveyed children had experienced four or more different kinds of victimization within a single year (Finkelhor, Ormrod, & Turner, 2007), suggesting that the experience of repeated trauma is not uncommon. Yet this subset of survivors has received little attention regarding their unique needs. Decades of research, however, have been devoted to examining the impact of single types of maltreatment (i.e., sexual or physical abuse), and has indicated that exposure to even one form of trauma can have a deleterious impact, with symptoms beyond those described in the diagnostic construct posttraumatic stress disorder (PTSD; Cicchetti & Toth, 1995; Cole & Putnam, 1992; Felitti et al., 1998; Putnam, 2003). The concept of complex trauma, consequently, was developed to describe the symptoms following severe and repeated trauma (Cook, Blaustein, Spinazzola, & van der Kolk, 2003; Herman, 1992). This study aims to investigate the empirical support for the definition of a complex trauma event in children and adolescents.

The Limitations of PTSD

A diagnosis of PTSD requires exposure to a traumatic event that involves an actual or perceived threat to the physical integrity of an individual or others (American Psychiatric Association [APA], 2000). Traumatic events include child sexual or physical abuse, neglect, domestic violence, life-threatening illness, school or community violence, unexpected death of a family member or close friend, natural disaster, motor vehicle accident, or other serious accident. Although a wide range of events are captured under the heading of a traumatic event, research consistently finds that aspects of the traumatic event are related to outcome including the nature, chronicity, and age of onset of the trauma. First, whether the traumatic event was interpersonal or noninterpersonal is predictive of outcome with interpersonal traumas resulting in more severe and complicated symptoms than noninterpersonal traumas (Briere & Jordan, 2004; Ford, Stockton, Kaltman, & Green, 2006). Interpersonal traumas may be more harmful as they are intentionally perpetrated by another person, and render the victim’s views regarding safety, intimacy, and trustworthiness vulnerable to unhelpful or inaccurate alterations (Janoff-Bulman, 1992).

Second, the chronicity of the trauma has been observed to be related to symptom presentation. It should be noted that the chronicity of a trauma is confounded by another variable,
namely the number of instances of a trauma. Research indicates that either variable is influential in symptom development; the longer and more frequently the trauma occurs, the more severe and varied are the posttraumatic sequelae (Blaauw, Winkel, Arensman, Sheridan, & Freeve, 2002; Mechanic, Uhlmansiek, Weaver, & Resick, 2000). Chronic traumas may leave the survivor feeling overwhelmed, helpless, or that the trauma is inescapable. Third, age of onset of the trauma is influential; traumas beginning in childhood relate to more severe symptoms than those beginning in adulthood (Cloitre, Stovall-McClough, Zorbas, & Charuvastra, 2003). Trauma is often considered toxic to development, and when traumatic events begin in childhood, a child’s developmental trajectory may be significantly altered (Cicchetti & Toth, 1995).

The abovementioned features of the traumatic event, and their subsequent impact on symptom presentation, are not considered in the PTSD construct. PTSD is not designed to distinguish between differing types of traumatic exposure. Further, survivors of traumatic events often present with symptoms not specifically captured in the PTSD diagnosis, such as affect regulation difficulties, impaired self-concept, interpersonal problems, sexualized behavior, and somatic complaints (Briere & Spinazzola, 2005; Cloitre et al., 2003; Zucker, Spinazzola, Blaustein, & van der Kolk, 2006). Comorbid conditions are very common; more than 80% of individuals diagnosed with PTSD receive a comorbid diagnosis (Kessler, Chiu, Demier, Merikangas, & Walters, 2005). This may be problematic as non-PTSD symptoms might not be readily integrated into the conceptualization of the aftermath of trauma and therefore may not be ascribed to the traumatic experience.

PTSD has shown to be diagnosed less frequently following multiple or chronic traumatic events than after single instances of trauma (Green et al., 2000). Childhood rates of PTSD have also been found to be lower than expected when compared to adult populations (Ackerman, Newton, McPherson, Jones, & Dykman, 1998). Children’s age predicts symptom presentations, for as children age, they present with PTSD symptoms that are similar to symptoms in adult populations (van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005). The absence of a PTSD diagnosis does not indicate that children exposed to trauma do not have trauma-related difficulties, but rather developmental modifications of the construct may be needed (Sheerenga, Zeannah, Meyers, & Putnam, 2003). This does not undermine the PTSD construct, but rather suggests that PTSD may be insufficient to fully capture the potential debilitating consequences of complex trauma in children.

**Complex Trauma**

The concept of complex trauma was developed to describe the symptom presentations of survivors of extensive and repeated trauma (Herman, 1992). Complex trauma has been defined as a traumatic event that is chronic, interpersonal, and begins in childhood (Cook et al., 2003). It includes child sexual, physical, and emotional abuse; neglect; witnessing domestic violence; and the experience of being in a refugee camp. These events are best conceptualized as a qualitatively more severe subset of traumatic events. The term complex trauma, confusingly, also refers to the impact that is presumed to follow a complex trauma event. Therefore, complex trauma is best conceptualized as an equation, that is, some specified qualitatively more severe traumatic events are presumed to result in profound and far-reaching outcomes. Specifically, complex trauma events are theorized to impair self-regulation, resulting in problems with regulation in affect, behavior, impulses, attention, and consciousness, as well as interpersonal and identity problems (Cook et al., 2003). Scholars have attempted to define complex trauma outcomes for both adult and child populations, proposing two different constructs, disorders of extreme stress not otherwise specified (DESNOS) and developmental trauma disorder (DTD), which were proposed for inclusion in *DSM-IV* and *DSM-5*, respectively (Roth et al., 1997; van der Kolk, & Mandel, 1997; van der Kolk, 2005).

**Disorders of Extreme Stress Not Otherwise Specified**

DESNOS describes the psychopathology resulting from complex trauma exposure as it manifests in adulthood (Roth et al., 1997). During the development of *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., [DSM-IV], APA, 1994), the empirical support for DESNOS was investigated. Results indicated that individuals who had experienced an interpersonal trauma, a chronic traumatic event, or a traumatic event that began at an early age (i.e., before 14 years of age) reported more DESNOS symptoms (Pelcovitz et al., 1997). Additionally, survivors of early-onset interpersonal traumas reported more DESNOS symptoms than those who experienced an interpersonal trauma later in life. Indeed, the majority of those exposed to early-onset interpersonal trauma reported suffering from DESNOS symptoms (van der Kolk et al., 2005). They were also most likely to receive a diagnosis of PTSD and DESNOS (61%). Only 16% of this group was diagnosed with PTSD. In contrast, of those who experienced a noninterpersonal traumatic event, PTSD was the more frequent diagnosis (15%) than PTSD and DESNOS (8%).

Other research has also found support for the notion that early childhood trauma predicts DESNOS symptoms (Ford, 1999; Ford & Kidd, 1998; Ford et al., 2006). Among college women, DESNOS symptoms were associated with severe interpersonal trauma in a dose-response manner (Ford et al., 2006). Noninterpersonal trauma was related to PTSD, but not DESNOS. Ford (1999) also found that DESNOS and PTSD were comorbid, but distinct conditions among treatment-seeking veterans. Thirty percent (30.9%) met criteria for both conditions, 29.5% were diagnosed with PTSD only, 26.2% were diagnosed with DESNOS only, and 13.1% met criteria for neither condition.

Even though DESNOS appears to specifically capture the unique trauma-related symptom presentation associated with complex trauma, DESNOS was ultimately included in the...
“Associated and Descriptive Features” of PTSD, rather than as a discrete disorder. DESNOS represented a step forward in delineating complex trauma outcomes. However, DESNOS is operationally defined only for adults and the symptoms are developmentally inappropriate for children. For example, the DESNOS symptom for alterations in self-perception includes feelings of ineffectiveness, being permanently damaged, guilt, responsibility, and shame (Pelcovitz et al., 1997). These symptoms presume a fully developed sense of reflective self-judgments that are not yet developed in younger child populations. Despite the fact the complex trauma events begin in childhood, DESNOS is not applicable to children, and the child victims of complex trauma remain overlooked.

**Developmental Trauma Disorder**

As no diagnostic construct adequately addresses the varied impact of complex trauma events in a developing child, DTD was proposed for inclusion in DSM-5 (van der Kolk, 2005). DTD focuses on the ways in which impaired self-regulation manifests in children following complex trauma. Several domains of impairment have been described and tentatively proposed: affective, physiological, behavioral, biological, cognitive, and self- and relational dysregulation (Cook et al., 2003). DTD is the best effort to date that describes children’s reactions to complex trauma for it is developmentally sensitive and delineates the full range of trauma-related symptoms.

However, research has not been conducted that demonstrates that children exposed to complex trauma events, defined as interpersonal events that are chronic or multiple and begin at an early age, do indeed present with more complicated symptom presentations when compared to their less severely traumatized counterparts (Cook et al., 2003). The extant literature from child abuse populations does suggest that this would be the case, with research consistently indicating that features of the traumatic event are related to symptom presentation (Kendall-Tackett, Williams, & Finkelhor, 1993; Putnam, 2003). Yet the child maltreatment literature may not be sufficient in providing empirical support for the complex trauma definition, as it examines only child abuse, not complex trauma. The child maltreatment literature is focused, rightfully so, on examining aspects of a specific type of trauma (i.e., childhood sexual abuse, physical abuse, emotional abuse) and variables specific to that trauma. Although it is certainly the case that some experiences of child maltreatment constitute a complex trauma event, research has not examined the impact of complex trauma events specifically in children and adolescents. Nor has prior research specifically compared the outcomes of complex trauma to traumatic events that contain one or two of the three components of the complex trauma definition across trauma types. This study examines whether children and adolescents exposed to a complex trauma event indeed have more complicated symptom presentations than children and adolescents exposed to traumas consisting of one of two of the components of complex trauma. This study utilized similar strategies used to investigate DESNOS in the DSM-IV field trial. Children and adolescents exposed to complex trauma were compared to those exposed to (a) acute noninterpersonal trauma, irrespective of age of traumatic onset; (b) to those exposed to a traumatic event that begins early in life; (c) to those exposed to an interpersonal trauma; and (d) to those exposed to chronic interpersonal trauma that begins later in life.

**Method**

**Participants**

Included in this study were 346 children and adolescents between the ages of 3 and 18 years ($M = 9.67, SD = 4.00$) seeking treatment with their nonoffending caregiver from a child advocacy center. Demographic information and trauma exposure was indicated by the child’s legal guardian, who provided written consent. Eligible participants had experienced a traumatic event: 263 neglect (76.01%), 258 sexual abuse (74.55%), 107 physical abuse (30.92%), 99 domestic violence (27.74%), 91 impaired caregiver (i.e., parental mental illness; 26.3%), 79 emotional abuse (22.83%), 52 death of a loved one (15.02%), 30 community violence (0.09%), 19 serious injury/accident (0.05%), 18 serious illness (0.05%), 13 homicide (0.04%), 9 natural disaster (0.03%), 9 suicide (0.03%), 5 school violence (0.01%), 3 kidnapping (0.01%), and 2 war/terrorism (0.01%). The sample contained 134 boys (38.7%) and 212 girls (61.3%); 210 were African American (60.69%), 106 were Caucasian (30.6%), 5 were Hispanic (0.01%), and 25 were biracial/multiracial (0.07%). Children were eligible for inclusion in the study if they had completed an intake evaluation. There were no exclusionary criteria.

**Measures**

As a complex trauma outcome measure does not currently exist, the Child Behavior Checklist and Trauma Symptom Checklist for Young Children were chosen to assess symptom presentations following traumatic events as these measures broadly tap into the domains theorized to be impacted by complex trauma events.

**Child Behavior Checklist.** The Child Behavior Checklist (CBCL/6–18; Achenbach & Rescorla, 2001) is a widely used 113-item measure completed by a parent or guardian that assesses a variety of childhood symptomatology for children aged 6–18 years. The CBCL has eight narrowband subscales: Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behavior, as well as three wideband Total Scores; Internalizing, Externalizing, and Total Problems. Consistent with the testing manual, the two separate profile analyses were conducted for this study: one for the eight subscales, and one for the three total scores. Evidence for content, construct, and criterion-related validity is well documented and Cronbach’s $\alpha$ have been found to range from...
Trauma Symptom Checklist for Young Children. The Trauma Symptom Checklist for Young Children (TSCYC; Briere et al., 2001) is a 90-item caregiver-report measure that assesses PTSD and other trauma-related symptoms in children 3–12 years of age. T scores are used to interpret the child’s level of symptomatology. The TSCYC is comprised of clinical subscales for Posttraumatic Stress-Intrusion, Posttraumatic Stress-Avoidance, Posttraumatic Stress-Arousal, Sexual Concerns, Anxiety, Depression, Dissociation, and Anger/Aggression. A multisite study (Briere et al., 2001) found good reliability for the TSCYC, with α coefficients ranging from .81 to .93. Predictive validity was also demonstrated for childhood trauma. Cronbach’s α for this study was .82.

Procedure
Participants in the study were a treatment-seeking sample of children and their legal guardians. Caregivers completed the CBCL and TSCYC when applicable at the beginning of treatment (i.e., first three sessions) as part of routine clinical practice. The study was approved by University of Missouri- St. Louis Institutional Review Board.

Two independent raters were used to determine the type of traumatic exposure as both the child and caregiver provided information regarding exposure to traumatic events. Raters referred to the caregiver’s report and coded whether the traumatic event was interpersonal or noninterpersonal and if the traumatic exposure was chronic or acute. Interpersonal traumas included sexual, physical, or emotional abuse, neglect, domestic violence, homicide, kidnapping, war/terrorism, and school or community violence. Noninterpersonal traumas included serious illnesses, serious injury/accident, suicide, natural disasters, death of a loved one, or an impaired caregiver. For the cases in which the raters disagreed, the principal investigator made the final decision. Raters were blind to the child’s CBCL and TSCYC scores. Interrater reliability between the two raters was adequate (κ = .69).

Chronic trauma was operationalized as traumatic events that occurred for 6 months or more. If the child was reported to have experienced either multiple episodes of trauma, single instances of trauma perpetrated by different individuals, or different types of traumatic events that occurred over the course of 6 months or longer, then raters coded the child as having experienced a chronic traumatic event. Otherwise the traumatic exposure was coded as acute. For the cases in which the raters disagreed, the principal investigator made the final decision. Interrater agreement between two raters was good (κ = .74).

Data Analysis
After determining the presence of potential covariates, each of the hypotheses was examined by the levels of hypothesis in the profile analysis to examine whether there were significant differences in the level of caregiver-reported symptoms. Three profile analyses were conducted: CBCL subscales, CBCL Total Scores, and TSCYC. Due to the number of comparisons, the significance level was set at .01.

Results
Prior to main analyses, potential covariates were investigated including age, gender, ethnicity, and the caregiver’s relationship to the child. Neither age nor gender was found to be significantly related to any of the dependent variables. Ethnicity was coded into two groups: 0 = Caucasian, 1 = non-Caucasian. Significant differences were found between groups on one of eight CBCL subscales, Anxiety/Depressed, t(253) = 2.48, p = .013, d = 0.31; and one of the three CBCL Total scores, Internalizing Problems, t(253) = 2.41, p = .027, d = 0.30, with Caucasian caregivers being more likely to report higher levels of symptoms than non-Caucasian caregivers (M = 63.05 vs. M = 59.52; M = 63.46 vs. M = 59.84). Significant differences were also found between groups on two of the nine TSCYC subscales; with Caucasian caregivers being more likely to report higher levels of Anxiety symptoms (M = 64.95 vs. M = 59.24, d = 0.30), t(227) = 2.27, p = .042, as well as sexual concerns (M = 71.52 vs. M = 62.38, d = 0.40), t(227) = 3.05, p = .014. Statistical analyses also indicated that minority status was not found to be related to aspects of the traumatic event including the chronicity of the trauma, χ² (1, N = 346) = 3.01, p = .082; age, t(233) = 1.63, p = .104; or whether the trauma was interpersonal or not, χ² (1, N = 346) = 2.85, p = .091. Minority status was thus not included as a covariate.

The child’s relationship to the caregiver was also examined. The majority (67.63%) of the children in the sample were accompanied to treatment by one of their biological parents. Due to the small cell size of the remaining types of relationships, the relationships were coded into two groups, biological parent = 0, and nonbiological parent = 1. Analyses of variance did not reveal significant differences between groups for the CBCL, and only one significant difference between groups was found on the nine subscales of the TSCYC, Depression, t(227) = 2.83, p = .007, d = 0.37, with biological parents being more likely to report higher levels of depressive symptoms than nonbiological parents (M = 64.21 vs. M = 55.93). The child’s relationship to rater was consequently not used as a covariate.

Cell sizes were adequate and ranged from 38 to 195. Children exposed to complex trauma were expected to exhibit more trauma-related difficulties than those exposed to an acute noninterpersonal trauma. Consistent with the hypothesis, profile analysis yielded a main effect for the CBCL subscales for groups, F(1, 252) = 14.29, p < .001 (see Table 1), CBCL Total scores, F(1, 252) = 7.52, p < .001, and the TSCYC, F(1, 225) = 7.26, p < .001. As expected, survivors of complex trauma consistently had higher levels of symptoms when compared to individuals exposed to an acute noninterpersonal trauma. This was
### Table 1

**Descriptive Statistics of Subscales and Effect Sizes of Between-Group Comparisons**

<table>
<thead>
<tr>
<th></th>
<th>Acute noninterpersonal</th>
<th>Early Interpersonal</th>
<th>Interpersonal</th>
<th>Late chronic interpersonal</th>
<th>Complex trauma</th>
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<tr>
<td></td>
<td>(n = 38)</td>
<td>(n = 83)</td>
<td>(n = 195)</td>
<td>(n = 171)</td>
<td>(n = 166)</td>
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<td><strong>Child Behaviour Checklist Subscales</strong></td>
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<tr>
<td>Cohen’s (d)</td>
<td>0.48**</td>
<td>0.71**</td>
<td>0.61**</td>
<td>0.59**</td>
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<td></td>
<td>(M) SD</td>
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<tr>
<td>Anxious/Depressed</td>
<td>54.58 13.39</td>
<td>57.70 8.79</td>
<td>58.03 7.50</td>
<td>62.95 10.60</td>
<td>62.94 10.64</td>
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<tr>
<td>Withdrawn/Depressed</td>
<td>56.54 7.07</td>
<td>58.18 8.36</td>
<td>59.58 8.72</td>
<td>63.59 9.96</td>
<td>63.82 9.95</td>
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<tr>
<td>Somatic Complaints</td>
<td>55.65 7.25</td>
<td>57.25 6.84</td>
<td>57.97 8.92</td>
<td>61.73 9.49</td>
<td>61.97 9.48</td>
</tr>
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<td>Social Problems</td>
<td>56.62 10.24</td>
<td>58.25 8.08</td>
<td>58.22 8.09</td>
<td>64.37 10.16</td>
<td>64.39 10.36</td>
</tr>
<tr>
<td>Thought Problems</td>
<td>54.81 6.41</td>
<td>58.07 8.72</td>
<td>58.10 8.96</td>
<td>63.03 9.57</td>
<td>63.10 9.62</td>
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<tr>
<td>Rule-Breaking Behavior</td>
<td>56.85 7.29</td>
<td>59.71 8.30</td>
<td>58.51 11.18</td>
<td>66.70 12.58</td>
<td>66.84 12.53</td>
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<tr>
<td>Aggressive Behavior</td>
<td>59.42 8.74</td>
<td>61.16 11.50</td>
<td>60.02 8.37</td>
<td>64.03 8.95</td>
<td>64.03 9.06</td>
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<tr>
<td>Child Behaviour Checklist Total Scores</td>
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<tr>
<td>Cohen’s (d)</td>
<td>0.35**</td>
<td>0.63**</td>
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<tr>
<td>Internalizing</td>
<td>56.08 9.11</td>
<td>59.41 11.47</td>
<td>57.89 10.47</td>
<td>63.36 11.28</td>
<td>63.49 11.31</td>
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<tr>
<td>Externalizing</td>
<td>58.85 8.56</td>
<td>58.77 10.70</td>
<td>59.99 10.15</td>
<td>63.60 11.43</td>
<td>63.62 11.49</td>
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<tr>
<td>Total problems</td>
<td>58.12 8.39</td>
<td>59.62 12.55</td>
<td>59.66 9.87</td>
<td>65.67 10.37</td>
<td>65.74 10.41</td>
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<td><strong>Trauma Symptom Checklist for Young Children</strong></td>
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<tr>
<td>Cohen’s (d)</td>
<td>0.36**</td>
<td>0.25</td>
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<tr>
<td>Anxiety</td>
<td>52.26 13.43</td>
<td>59.62 14.97</td>
<td>58.77 15.23</td>
<td>63.50 14.20</td>
<td>63.38 14.18</td>
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<td>Depression</td>
<td>56.50 14.36</td>
<td>61.93 13.76</td>
<td>62.03 14.17</td>
<td>64.04 14.37</td>
<td>63.97 14.53</td>
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<td>Anger</td>
<td>59.04 15.08</td>
<td>61.07 15.33</td>
<td>60.99 16.04</td>
<td>61.83 17.36</td>
<td>62.10 14.25</td>
</tr>
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<td>Posttraumatic Stress-Intrusion</td>
<td>55.61 14.25</td>
<td>60.65 14.55</td>
<td>59.64 15.10</td>
<td>68.70 15.65</td>
<td>68.92 15.76</td>
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<td>Posttraumatic Stress-Avoidance</td>
<td>54.68 14.42</td>
<td>65.72 16.04</td>
<td>64.70 16.15</td>
<td>70.03 15.21</td>
<td>70.02 15.25</td>
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<td>Posttraumatic Stress-Arousal</td>
<td>53.71 12.40</td>
<td>60.25 15.52</td>
<td>60.40 13.41</td>
<td>64.32 14.29</td>
<td>64.77 14.24</td>
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<tr>
<td>Posttraumatic Stress-Total</td>
<td>56.04 14.03</td>
<td>64.39 15.54</td>
<td>63.60 16.47</td>
<td>70.13 15.98</td>
<td>70.29 15.10</td>
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<td>Dissociation</td>
<td>52.14 13.36</td>
<td>54.57 14.09</td>
<td>55.55 14.03</td>
<td>61.82 15.12</td>
<td>62.17 15.10</td>
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<td>Sexual Concerns</td>
<td>51.00 7.08</td>
<td>63.84 16.00</td>
<td>61.02 16.81</td>
<td>69.68 16.43</td>
<td>69.12 16.31</td>
</tr>
</tbody>
</table>

**Note.** Cohen’s \(d\) is reported for the comparison of the complex trauma group with each of the others on the overall scale.

**\(p < .01\).**
found for generalized behavioral symptoms on the CBCL subscales and Total scores as well as trauma-related symptoms on the TSCYC.

Children exposed to a complex trauma event were expected to have greater trauma-related difficulties than those exposed to chronic interpersonal traumas that begin at a later age (after age 10). Profile analysis yielded a main effect for the CBCL subscales, \( F(1, 178) = 22.44, p < .001 \), CBCL Total scores, \( F(1, 178) = 17.95, p < .001 \). The TSCYC was not significant, \( F(1, 253) = 3.80, p = .052 \). These results suggest that the developmental timing of the traumatic event is related to the level of generalized behavior problems, but not trauma-related difficulties.

Children exposed to complex trauma were compared to children exposed to an acute interpersonal trauma. Profile analysis yielded a main effect for the CBCL subscales, \( F(1, 234) = 22.47, p < .001 \), CBCL Total scores, \( F(1, 234) = 13.59, p < .001 \), and TSCYC, \( F(1, 234) = 7.13, p = .008 \). Results indicate that the chronicity of the traumatic event is predictive of difficulties, with traumatic events of longer duration resulting in more generalized behavioral and trauma-related difficulties.

Children exposed to a complex trauma event were compared to children exposed to a trauma that began at an early age. Profile analysis yielded a main effect for the CBCL subscales, \( F(1, 193) = 17.06, p < .001 \), and CBCL Total scores, \( F(1, 193) = 13.19, p < .001 \). A main effect was not found for the TSCYC, \( F(1, 227) = 2.96, p = .086 \). Children exposed to complex trauma, compared to those who experienced a trauma that began early in life evinced greater generalized behavior problems on the CBCL subscales and Total scores. No differences, however, were found for specific trauma symptoms on the TSCYC.

**Discussion**

Three decades have passed since the term complex trauma was coined in reaction to the limitations of the diagnostic construct PTSD to describe the symptom presentations after severe and repeated trauma (Herman, 1992). Since then, two diagnostic constructs have been developed to capture the aftermath of complex trauma and were proposed for inclusion into the DSM, namely, DESNOS and DTD (Roth et al., 1997; van der Kolk, 2005). The DSM-IV field trial provided evidence that adults exposed to a complex trauma event, defined as a traumatic event which was a chronic interpersonal trauma beginning at an early age, presented with more DESNOS symptoms than their less severely traumatized counterparts (Pelcovitz et al., 1997; Roth et al., 1997). Research on child trauma has examined the effects of various components of trauma that may contribute to more deleterious outcomes (Cole & Putnam, 1992; Felitti et al., 1998; Putnam, 2003). However, little research with children and adolescents has been conducted, paralleling that for DESNOS, which addresses whether the definition of complex trauma is empirically warranted.

The present study sought to examine the definition of complex trauma by contrasting the caregiver-reported symptoms presentations of children exposed to complex trauma to those who underwent various trauma ecologies of lesser severity in a fashion similar to that used in the DSM-IV DESNOS field trial (van der Kolk et al., 2005). As anticipated, children exposed to complex trauma were consistently found to have greater levels of caregiver-reported generalized behavior problems than those exposed to (a) an acute noninterpersonal trauma, (b) a chronic interpersonal trauma that begins later in life, (c) an acute interpersonal trauma, and (d) a traumatic event that begins earlier in life. Thus, children who have experienced complex trauma consistently presented with more widespread behavioral difficulties than those exposed to traumatic events of lesser severity. Children exposed to complex trauma were also found to have more caregiver-reported trauma-related symptoms than those exposed to (a) an acute noninterpersonal trauma, (b) a chronic interpersonal trauma that begins later in life, and (c) an acute interpersonal trauma. Taken together, these findings suggest that children exposed to complex trauma present to treatment with a different symptom presentation than those exposed to noncomplex trauma events of differing severity.

It is, perhaps, most striking that for generalized behavior problems, differences were found between groups for all four contrasts. In fact, generalized behavior problems had the largest effect size (Cohen’s \( d = 0.71 \)). Thus, complex trauma events do indeed result in widespread difficulties in addition to trauma-related results. This suggests that the aftermath of complex trauma is not restricted to more traditional trauma-related symptoms as theorized (Cook et al., 2003; van der Kolk, 2005). It is similarly noteworthy that children exposed to a complex trauma event were not found to have higher levels of trauma-related symptoms when compared to those exposed to a traumatic event that began early in life. The absence of significant differences between groups may suggest that the impact of more severe traumatic events is not revealed in traditional trauma-related symptoms. As differences were observed between these groups for behavioral problems, it may be the case that the impact of complex trauma may be most visible when examining nontraditional trauma symptoms.

The results provide initial support, albeit indirect, for the assumption that complex trauma disrupts children’s ability to regulate themselves, consistent with the theoretical claims of DTD (van der Kolk, 2005). Further, it is noteworthy that higher levels of symptoms were observed for all of the subscales on the TSCYC, not simply the PTSD subscales. This suggests that PTSD may be limited in describing the full impact of complex trauma events in children as other non-PTSD subscales were elevated for the TSCYC and the CBCL. The present study provides empirical support that a diagnostic construct devoted to complex trauma, like DTD, may be useful in describing the aftermath of complex trauma events.

There were several limitations of this study, the most significant being that this study utilized a treatment-seeking sample. Generally, caregivers initiate treatment for their children due
to difficulties. For this study in particular, this is problematic: Children who were exposed to a traumatic event who do not exhibit trauma-related symptoms are unlikely to present to treatment. The study was also limited by the assessment of traumatic exposure. A validated caregiver-report trauma screener administered by the clinician was not used. This has several potential implications. Caregivers may endorse that a child experienced a traumatic event; however, it is unknown whether the traumatic event constituted a PTSD Criterion A stressor. Caregivers may also endorse, for example, that a child was sexually abused based on suspicion, as opposed to a child’s disclosure. Also, it is not clear whether the reported difficulties are indeed the result of the traumatic event (i.e., whether a particular symptom began after, as opposed to before, the traumatic event). Emotional and behavioral concerns assessed by the measures used are not unique to traumatic events; thus, an assessment of the linkage between these difficulties and the traumatic event would have been beneficial to help provide a clearer picture of the level of trauma-related difficulties. Finally, a measure that assesses complex trauma outcomes in children and adolescents does not currently exist. One has been developed for adults (Pelcovitz et al., 1997); however, this measure is not developmentally appropriate for children. Broad domains of the impact of complex trauma in children have been identified, but specific symptoms have not been empirically identified. A validated measure of complex trauma outcomes would be of great benefit, and allow for a more targeted examination of the theorized difficulties that children develop following complex trauma events.

Despite these limitations, the findings of the present study are a step forward in the field of complex trauma. The present study extended the findings of the DSM-IV field trial to children and adolescents to demonstrate that complex trauma is significantly more harmful than trauma ecologies of lesser severity. Further research is needed to investigate the symptoms that follow complex trauma events, the specific manifestations of the dysregulation observed following complex trauma, as well as which symptoms are most characteristic of exposure to complex trauma. Additionally, as complex trauma events do result in significant levels of PTSD symptoms in addition to behavioral difficulties, research investigating the relationship between PTSD and a complex trauma diagnostic construct is needed.

References


