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What do Youth Report as a Traumatic Event? Toward a Developmentally Informed Classification of Traumatic Stressors

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Abstract

The aim of this study was to explore youth reports of traumatic events by 1) identifying the types of events that children and adolescents report as traumatic in their lives, 2) investigating the association between self reported traumatic events and self and parent reported emotional problems and 3) by examining developmental differences in the types and severity of the events reported as traumatic. Information regarding traumas and symptoms was collected from a sample of youth aged 6–17 using The *Child PTSD Checklist*. A coding system was developed for classifying the events reported. Findings suggest that youth reported a wide variety of experiences as traumatic that could be reliably coded and classified, and that youth reporting traumatic events and symptoms consistent with PTSD evidence higher levels of emotional, and behavioral problems (via parent and child report) than youth not reporting traumatic events. Youth aged 13–17 tended to report traumas that were rated by independent coders as more severe than youth aged 6–12. While the types of events reported did not differ in PTSD symptoms and other emotional, and behavioral problems there were differences in objective ratings of physical severity and psychological intensity. Implications of the findings are discussed in terms of the creation of developmentally informed classification of traumatic stressors.

The negative implications of experiencing traumatic stress in childhood have been well documented (Carrión, Weems, & Reiss, 2007; Silverman & LaGreca, 2002; Vernberg & Varela, 2001). Research suggests that traumatic events are prevalent in youth (Costello, Erkanalli, Fairbank, & Angold, 2002) and that exposure to specific types of experiences in youth (e.g., death of a loved one, rape, or serious illness) are associated with increased risk of developing emotional problems (Cuffe et al., 1998) such as Posttraumatic Stress Disorder (PTSD; American Psychiatric Association, 1994). However, relatively less attention has been paid to garnering data on what youth consider to be traumatic experiences in their lives. Important theoretical syntheses of the research on the role of stress in childhood problems have called for the identification and classification of stressors generally (Grant et al., 2003). To this end, we sought to develop a reliable coding system for child and adolescent reports of traumatic events and to identify the types of events youth report as traumatic using an open ended format. We also sought to explore the emotional and behavioral salience of these self reported traumatic events and examine age and gender differences in these reports.

To date, the vast majority of research on traumatic stress has drawn from the criteria for Posttraumatic Stress Disorder (PTSD) in the *Diagnostic and Statistical Manual of Mental*

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Disorders [(currently the latest is the 4th edition, text revision) *DSM-IV TR*, American Psychiatric Association, 2000]. The *DSM-IV-TR* (2000) defines a traumatic event as an experience that involves threatened death or severe injury to an individual, or witnessing an individual experience threatened death or severe injury (Criterion A1). The *DSM-IV-TR* (2000) also specifies that an individual must respond to that event with intense fear, helplessness, or horror (Criterion A2). Based on the *DSM-IV-TR* traumatic events are thus both physically severe (A1) and psychologically intense (A2).

The *DSM-IV-TR* (2000) suggests developmental considerations for children's responses to traumatic events through notations within Criterion A2 and also Criteria B of PTSD. Notation within Criterion A2 specifies that children may respond to traumatic events through disorganized or agitated behavior, and notation within Criteria B indicates that children's re-experiencing symptoms may manifest through repetitive play reenacting the traumatic event, or through recurrent upsetting dreams about the traumatic event. While the *DSM-IV-TR* (2000) specifies developmental differences in terms of reactions to traumatic events or expression of re-experiencing symptoms, it does not provide developmental considerations for children with respect to Criterion A1. Notation within the *DSM-IV-TR* (2000) indicates specific types of events that might be found traumatic in general (e.g., violent personal assault, motor vehicle accidents, and witnessing death); however, no specification is offered regarding the types of events that might constitute stressors in childhood and adolescence. While childhood trauma researchers have examined the prevalence of traumatic events in youth (e.g., Costello, Erkanli, Fairbank, and Angold, 2002; Cuffe et al., 1998; Giaconia et al., 1995), less is known about the types of events youth report when asked if something traumatic has happened to them. Garnering information about the types of events reported as traumatic by youth might help foster an empirically derived and developmentally informed classification of traumatic stressors.

Past research has identified a number of specific types of events that are associated with the development of posttraumatic stress (PTS) symptoms in youth and we drew from this research to develop the coding system used in this study. In the following we briefly review events commonly considered as traumatic in the literature; however, it is important to realize that not all youth respond to these events with intense PTS symptoms. Depending on the sample being studied and the methodology used, prevalence rates for PTSD have ranged widely in at-risk child populations (American Academy of Child and Adolescent Psychiatry, 1998). Indeed prevalence estimates for PTSD have ranged from as low as 3 to 6% in community samples to 35% and higher in various at risk samples (Ackerman, Newton, McPherson, Jones, & Dykman, 1998; Kilpatrick et al., 2003).

Commonly investigated events include maltreatment, exposure to violence, car accidents, and separation and loss events. For example, experiencing sexual or physical abuse during childhood is considered a traumatic event and is associated with PTS symptoms (Ackerman, et al., 1998; Cohen, Berliner, & Mannarino, 2003; Davis & Siegel, 2000; Shaw, 2000). Research on natural disasters (e.g., hurricanes or earthquakes) similarly indicates that these types of events are traumatic for many youth and may result in the manifestation of emotional problems; in particular, posttraumatic stress symptoms (Goenjian et al., 2005; La Greca, Silverman, Vernberg, & Prinstein, 1996; Lonigan, Shannon, Taylor, Finch, & Saltee, 1994). Exposure to violence (either in the context of neighborhood violence or youth surviving war) is also considered traumatic to youth and youth who witness violence often report high levels of posttraumatic stress (Ajdukovic, 1998; Berton & Stabb, 1996; Seedat, Njeng, Vythilingum, & Stein, 2004; Stein et al., 2003). Motor vehicle accidents are another class of events that are potentially traumatic to youth (Keppel-Benson, Ollendick, & Benson, 2002; McDermott & Cvitanovich, 2000). Research also indicates that separation (e.g., parental incarceration) and loss (e.g., death of a loved one) may be traumatic to youth. The impact of these types of events

can result in the manifestation of posttraumatic stress (PTS) and related emotional problems (Cohen & Mannarino, 2004).

There are a number of less intensively researched events that have been suggested as potentially traumatic in childhood and adolescence. These include physical neglect (e.g., denying the child shelter or proper medical care), physical trauma (e.g., being burned, breaking a limb, sprains), and emotional abuse (e.g., belittling the child or denying s/he affection; Blakeney, Robert, & Meyer, 1998; Richmond, Thompson, Deatrack, & Kauder, 2000; Rodriguez-Srednicki & Twaite, 2004a; Rodriguez-Srednicki & Twaite, 2004b). With few exceptions, research studies on traumatic stressors have tended to select participants on the basis of exposure to one or more of the above mentioned events and examine associated symptoms. Research has not tended to report the results of open ended questions aimed at identify experiences youth deem traumatic. Thus, youth perceptions of what constitutes a traumatic event have received little attention. In this study we therefore focused on identifying events that youth report as traumatic.

Developmentally, it is important to examine if reports of traumatic events are similar across children and adolescents for both theoretical and applied reasons. Theoretically, the growing cognitive abilities of adolescents may make them more likely to report more objectively serious events (i.e., those with greater physical severity and psychological intensity) as traumatic than children because they better understand the distinction between a traumatic event and a scary, negative, or just stressful event or because they may also understand the difference between an event and a psychological state. On the other hand, traumatic stress may transcend age and gender differences. The existing research suggests that there are developmental differences in symptom expression (Carrión, Weems, Ray, & Reiss, 2002; Scheeringa, Peebles, Cook, & Zeanah, 2001; see also Weems & Costa, 2005). Moreover, female youth often report relatively more symptoms than boys (Vernberg, La Greca, Silverman, & Prinstein, 1996; Weems, Pina, et al., 2007). Research by Costello et al. (2002) does suggest some content specific differences in the types of events adolescent girls tended to experience (e.g., sexual assault, rape, or other types of events relative to sexual coercion were more common in adolescent girls than adolescent boys). However, few studies have examined age or gender differences in youth reports of potentially traumatic events. Theoretically, while some events are equally likely to be reported as traumatic (e.g., abuse) other events may show gender differences (e.g., report of sexual coercion events as traumatic might differ by sex).

In sum, the purpose of the present study was to garner information about the types of experiences youth report as traumatic in order to expand the developmental understanding of traumatic stressors. The specific aims of this study were the following: (1) to examine the types of experiences reported as traumatic in a community sample of youth and to formulate a coding system by which open ended reports of these events could be reliably categorized, (2) to explore the emotional and behavioral salience of the events reported by youth in terms of the subjective experience of related PTSD and other emotional symptoms as well as objective coder severity and intensity ratings of the traumas and lastly (3) to examine age and gender differences in the types of traumas reported, severity of experiences reported, and test the reliability of the classification scheme across age and gender groups. We hypothesized that the experiences youth report as traumatic could be reliably classified into one of our proposed categories.

We also predicted that youth reporting traumatic events and reporting the DSM-IV (APA 2000) symptom cluster criteria (i.e., at least one criteria B symptom, three C symptoms, and two D symptoms) would differ in levels of impairment (i.e., emotional and behavioral problems) compared to non-trauma reporting youth. While some researchers have found no differences in distress and impairment levels in traumatized youth meeting full criteria for PTSD and those with sub-threshold symptom levels (e.g., Giaconia et al, 1995; Carrión et al., 2002) other researchers have found higher distress and impairment levels in traumatized youth

with PTSD than those without meeting full criteria (Saigh, Yasik, Oberfield, Halamandaris, & McHugh, 2002). Therefore, we did not make a specific prediction about youth with trauma and sub-threshold symptoms versus youth with full symptom criteria. We predicted that older adolescents would tend to report more objectively severe experiences as traumatic based on the idea that their growing cognitive abilities would make them more likely to mainly report more serious events as traumatic. Finally, we explored if any of the traumatic events reported were differentially related to emotional symptoms, behavioral problems, and examined the extent to which these events were rated as more objectively severe (both physical severity and psychologically intensity) by coders than others.

Method

Participants

Data was collected from an ethnically diverse, urban sample of youth and their parents as part of an ongoing study conducted by the Youth and Family, Stress, Anxiety and Phobia Laboratory at the University of New Orleans (all data was collected prior to Hurricane Katrina). The sample was composed of 102 females and 98 males ($N=200$) aged 6 to 17 (mean age of 11.15 years; $SD = 3.39$). In terms of ethnicity, 48% of sample was Caucasian, 40.2% African American, 4.9% Hispanic, 2.9% Asian, and 3.9% were of other ethnic backgrounds. Twenty-three percent of the sample reported household incomes ranging from 0–\$11,999; 14.7%, \$12,000–20,999; 12.7%, \$21–30,999; 7.1%, \$31,000–40,999; 15.7%, \$41,000–50,999; and 25.9% over \$51,000. From the total sample, 63 females and 59 males ($n=122$) reported experiencing at least one traumatic event. Recruitment details and additional sample characteristics are presented below under procedures.

Measures

The *Child PTSD Checklist* was used to record self-reported traumas and symptoms of PTSD (Amaya-Jackson, McCarthy, Newman, & Cherney, 1995). The questionnaire has an open ended format to record up to three self-reported traumas and includes a 28-item checklist for assessment of PTSD and related post traumatic stress symptoms. The traumatic event query is as follows “Many kids go through things that are very upsetting or frightening. We would like to know about them and how you felt about it. They might have happened recently, or they might have happened a long time ago. Can you tell us if anything happened to you that was very scary or frightening?” Checklist symptom items are based upon symptom criteria (e.g., symptoms for clusters B, C, and D) specified in *DSM-IV* (1994) fourth edition (American Psychiatric Association, 1994). The rating scale for prevalence of symptoms is as follows: “not at all,” “some of the time,” “most of the time,” or “all of the time.” Evidence of good test-retest reliability, internal consistency, and construct validity has been reported by Amaya-Jackson et al. (2000) for the symptom scale. Coefficient alphas have been reported ranging from .90–.95 in samples of clinically referred adolescents (Amaya-Jackson et al., 2000), and ranging from .87–.95 in a community sample of youth disaster exposed youth (Weems, Pina et al., 2007). Internal consistency estimates for The *Child PTSD Checklist* for this study are presented in Table 1. Cronbach’s alpha for the total number of items on the questionnaire range from .88 to .90 across gender and age groups and are in within the range of estimates reported by Amaya-Jackson and colleagues (2000).

The *Child PTSD Checklist* records up to three self-reported traumas (Amaya-Jackson et al., 1995). Traumatic experiences reported were rated by trained master’s level graduate students and research assistants. Coders were provided with instructions for coding traumas and trained on the types of events belonging in particular categories. There were seventeen categories: 1) witnessing family violence, 2) witnessing non-family violence, 3) witnessing entertainment violence, 4) separation and loss from family members, 5) separation and loss non-family, 6)

physical abuse by a family member, 7) physical neglect by a family member, 8) physical trauma, 9) sexual abuse by a family member, 10) sexual assault, 11) emotional abuse by a family member, 12) emotional abuse non-family, 13) emotional trauma, 14) motor vehicle accidents, 15) natural disasters, 16) explosions/war, and 17) unclassified (reported items that were “non-events” such as psychological states). Two independent coders coded each of the traumatic events reported. Coder agreement was checked every forty cases to avoid drift. Meetings were held with coders when discrepancies in category or severity rating agreement occurred, and decisions were made regarding appropriate categorization of events. Coder agreement was examined through Cohen’s Kappa, and the data files were examined for accuracy of placement of events into categories (see results section).

To index the objective severity and intensity of the events reported, coders also rated the physical severity (using a 0 to 8 scale “0” representing not severe and “8” representing very, very severe physical threat) and psychological intensity (also using a 0 to 8 scale “0” representing no response and “8” representing a very, very intense psychological response) of each event reported. The physical severity ratings were based on the *DSM-IV-TR* A1 criterion for a traumatic event (i.e., experiencing or witnessing an event for which the physical integrity of self or others has been threatened; APA, 2000). The aim of coding the physical severity of the events was to assess how much an independent rater viewed the event as threatening the child’s physical integrity or the physical integrity of others. For example, if the child reported minimal direct threat to the self or others (e.g., “having nightmares,” or “watching scary movies with friends,”) as traumatic experiences, coders were advised to give the trauma a low physical severity rating. If the child reported severe direct threat to their physical integrity during the trauma (e.g., “being shot at in my neighborhood,” or “I got hit by a car and had to go to the hospital,”) or reported witnessing severe direct threat of another person’s physical integrity (e.g., “seeing someone get shot,” or “saw a stranger get murdered by someone”) coders were advised to give the trauma high physical severity ratings.

Similar to physical severity, psychological intensity ratings were based on *DSM-IV-TR* (A2) criterion for a response to a traumatic event (i.e., an individual’s response to the traumatic event involves intense fear, helplessness, or horror; APA, 2000). For example, if the event reported by the child implied a minimal fear/helplessness/horror response (e.g., “getting an insect bite,” or “losing a game,”) coders were advised to give the trauma a low psychological intensity rating. If the event reported by the child implied an intense fear/helplessness/horror response (i.e., the child has little control during the event, and the event is likely to be associated with a fear response; e.g., “I saw someone get raped,” or “when I was in the car and another car crashed into us,”) coders were advised to give the trauma a high intensity rating. Physical severity and psychological intensity ratings were assigned to each reported trauma and coder agreement was assessed using interclass correlation coefficients (see Table 1 and results section for inter-rater reliability estimates).

Measurement of other Emotional and Behavioral Problems

The *Revised Child Anxiety and Depression Scale* (RCADS; Chorpita, Yim, Moffitt, Umemoto, & Francis 2000; Spence, 1997) is a 47-item adaptation of the Spence Children’s Anxiety Scale and was used to assess symptoms of anxiety disorders other than Posttraumatic Stress Disorder and depression. Chorpita et al. (2000) modified the Spence scales for *DSM-IV* and evaluated the RCADS by examining the measure’s factorial validity in a school sample of 1,641 children and adolescents aged 6–18 and its reliability in a sample of 246 children and adolescents. The results suggest an item set and factor definitions that were consistent with *DSM-IV* anxiety disorders and depression, as well as good reliability and validity estimates. A total anxiety score was computed from all the items assessing symptoms of anxiety disorders and a total depression score was computed from all the depression items. Parents also completed a parent

version of the RCADS (RCADS-P) designed identical to the RCADS with minor modifications (i.e., wording was changed from “I” to “my child”). Internal consistency estimates from this sample fall within this range, .93–.94.

The *Child Behavioral Checklist* (CBCL; Achenbach, 1991) is a caregiver report measure that consists of rating scales used to assess symptoms of behavioral and emotional problems in children and adolescents, including those associated with posttraumatic stress (see Dehon & Scheeringa, 2005). In addition to providing a total problems score, this measure provides subscale scores for internalizing symptoms and other specific behavior problems. The CBCL has been found to have extensive reliability and validity estimates (Achenbach, 1991). Coefficient alphas have been reported ranging from 0.96 and 0.89 for the Internalizing, Externalizing, and Total scales, respectively. Coefficient alphas have been reported ranging from 0.70–0.92 for the syndrome scales (Achenbach, 1991). With respect to this research design, the CBCL was used as a means of assessing parent report of emotional and behavioral problems. T-scores were used in this study.

Procedure

The data collection for this study was approved by the Institutional Review Board at the University of New Orleans and determined to be in compliance with ethical standards for conducting research with human subjects. Participants for this study were recruited through area schools and through parents attending a large urban university. Participant interviews took place at the Youth Anxiety, Stress, and Phobia Laboratory, at the University of New Orleans. Interested families were informed that we were conducting a study of youth behaviors and emotions. Participant families received a small monetary reward for participating in the study. Informed consent was obtained from parents and informed assent was obtained from children. Children and their parents were greeted and given a general overview of the assessment procedures. Standardized specific instructions were then given to the parent and child separately. Youth completed the measures in random order as part of a comprehensive battery and were assisted as necessary by trained research assistants or graduate students (e.g., young participants were read the assessment battery by research assistants who closely monitored the child’s comprehension of the questions and fatigue). Parents completed questionnaires regarding demographic information, their child’s levels of anxiety and depression, and their child’s behavior in a quiet setting separate from children. Children and adolescents were interviewed regarding traumatic experiences and PTS symptoms using The *Child PTSD Checklist*. That is, research assistants read the first portion of The *Child PTSD Checklist* to youth (i.e., if the child had experienced a traumatic event, and what events had they experienced), and if an event was reported, youth were administered the remainder of the questionnaire (i.e., inquiry of PTS symptom presence). If a traumatic event was not reported, the remainder of the questionnaire was not administered. In order for both parties to feel comfortable providing honest and accurate responses to questionnaires, parents and children completed interviews in separate areas.

Age groups (children, 6–12 and adolescents, 13–17) were formed on the basis of sample size, predicted change in cognitive development (Piaget 1950; 1983), and for consistency of past research for dichotomous age analysis (Weems, Berman, Silverman, & Saavedra, 2001; Weems, Costa, Watts, Taylor, & Cannon, 2007). The *Child PTSD Checklist* was also used to delineate three groups of individuals in this sample (1) PTS positives were youth reporting traumatic events and PTS symptoms consistent with the *DSM-IV* symptom cluster criteria (APA, 1994) diagnosis (i.e., at least one criteria B symptom, three C symptoms, and two D symptoms). For this category symptoms were considered present if the child reported experiencing the symptom “most” or “all of the time”). (2) PTS negatives were children who reported a traumatic event, but did not report enough symptoms to meet criteria, and (3) controls

were youth who did not report a traumatic event. Thus, PTS positives reported at least one trauma classified in trauma categories other than miscellaneous, and met *DSM-IV-TR* (2000) symptom criteria by reporting symptom prevalence of “most of the time” or “all of the time” for one symptom from Cluster B, three symptoms from Cluster C, and two symptoms from Cluster D. PTS negatives reported a traumatic event, but did not report the symptoms indicated in *DSM-IV-TR* (2000) for a diagnosis of the disorder. Control participants did not report traumas or presence of PTS symptoms.

Results

Traumatic Events Reported

Kappa coefficients (Cohen, 1960) were computed to estimate the inter-rater reliability for the categories. From the total sample ($N=200$), 63 females and 59 males ($n=122$) reported experiencing at least one traumatic event. Kappa coefficients for the portion of the sample reporting traumas ($n=122$) are presented in Table 2 (i.e., the first reported experience, the second reported experience, and the third reported experience). The most commonly reported traumas include exposure to media violence, witnessing community violence, separation and loss events, and miscellaneous experiences. Kappa coefficients ranged from .78–1.00, with percent agreement ranging from 95–100% across the reported traumas.

As shown by Table 2, a large number of traumas were grouped into the unclassified category. Traumas grouped into this category (e.g., report of depression, eating disorders, recreational drug use, phobic responses) did not fit cleanly into one of the traumatic experiences categories. The experiences grouped into this category, while adverse, might be better described as psychological states rather than Criterion A1 events. Thus, events grouped into the unclassified category were not considered “traumatic events.”

When traumas were grouped by age and gender, reliability coefficients and percent agreement were consistent with those reported for the total sample. Reliability coefficients ranged from .69–1.00 with percent agreement ranging from 93–100% youth between the ages 6–12. The range of coefficients for youth between the ages of 13 and 17 was .77–1.00, and percent agreement ranges from 95–100%. Kappa coefficients for girls ranged from .77–1.00 with percent agreement among coders ranging from 94–100%. Kappa coefficient's for boys ranged from .86–1.00 with percent agreement among coders ranging from 95–100%. Across age and gender, Kappa coefficients and percent agreement indicate good estimates of inter-rater reliability.

Inter-rater agreement for physical severity and psychological intensity ratings were analyzed through single measures intraclass coefficient correlations (ICCs). Ratings for the youth reporting trauma ($n=122$), by age group, and gender for the first reported trauma are presented in Table 3. ICCs for the second and third reported traumas for the total sample, by age group, and gender were also computed. Reliability estimates for physical severity (ages 6–12, ICC=.81; ages 13–17, ICC=.79; girls, ICC=.78; boys, ICC=.82) and psychological intensity ratings for Trauma 2 (ages 6–12, ICC=.81; ages 13–17, ICC=.74; girls, ICC=.73; boys, ICC=.81) were good. For Trauma 3, reliability estimates for physical intensity (ages 6–12, ICC=.83; ages 13–17, ICC=.69; girls, ICC=.78; boys, ICC=.74) and psychological intensity (ages 6–12, ICC=.70; ages 13–17, ICC=.76; girls, ICC=.79; boys, ICC=.68) were also good.

Given that we are investigating trauma in youth, we felt it necessary to report the psychometric properties of the measure (i.e., The *Child PTSD Checklist*; see also Table 1) used to record traumas and posttraumatic stress symptoms in our sample. With respect to the convergent validity of the checklist, correlation coefficients were computed among The *Child PTSD Checklist* and measurement of symptoms associated with the phenomenology of PTSD (e.g.,

anxious, depressive, internalizing and externalizing symptoms). Correlation coefficients for the total sample of youth reporting traumatic events ($n=122$) are presented in Table 4. Results indicate that levels of PTSD symptoms assessed by the checklist are significantly associated with parent and child report of anxious and depressive symptoms.

PTS Symptom Level and Impairment

It was hypothesized that PTS positives (i.e., youth reporting traumas and meeting DSM symptom criteria for PTSD) would report higher levels of emotional and behavioral problems (i.e., anxious, depressive, internalizing and externalizing symptoms) compared to PTS negatives and non-traumatized youth. As noted, prior to testing this hypothesis, the sample was divided into three groups: (1) PTS positives, (2) PTS negatives, and (3) controls. ANOVAs were conducted on age, gender, ethnicity, and income across the three groups and are presented in Table 5. Results indicated no differences across groups in terms of gender or ethnicity among the three groups, but revealed significant differences for age. Additional analyses were run controlling for age and gender differences across groups on CBCL scores, child report of anxious and depressive symptoms, and parent report of child depressive symptoms were still significant.

The means of CBCL total and subscale scores for PTS positive, PTS negatives, and controls are presented in Table 5. Differences in means of CBCL total and subscale scores indicate differences in impairment level across PTS positives, PTS negatives, and control groups. A series of one way analyses of variances (ANOVAs), were conducted with type of group (i.e., PTS positives, negatives, and controls) as the independent variable and CBCL total and subscale scores as the dependent variables performed separately. As shown by Table 5, results indicate significant differences across groups for child report of symptoms (i.e., RCADS total anxiety and depression scores) and parent report of children's symptoms and impairment (i.e., RCADS-P depression scale, CBCL Internalizing, Externalizing, and Total Problems scores).

Tukey's post-hoc analyses were run to examine significant differences between groups and are presented in Table 5. As shown by Table 5, tests indicate that PTS positives demonstrate significantly higher Total Problems, Internalizing, and Externalizing scales than PTS negatives and controls. Tests further indicate that PTS positives report significantly higher scores on child (i.e., RCADS Anxiety and Depression) and parent report of measures (i.e., RCADS-P Depression, CBCL Internalizing, Externalizing scores) than PTS negatives. In addition, PTS positives reported significantly higher scores on child (i.e., RCADS Anxiety and Depression) and parent report (i.e., RCADS-P Anxiety and Depression, CBCL Internalizing, Externalizing, and Total Problems scores) measures than controls. Tests indicated no significant differences between PTS negatives and control groups on child (i.e., RCADS Anxiety and Depression) or parent report measures (RCADS-P Anxiety and Depression, CBCL Internalizing, Externalizing, or Total Problems scores).

Age and Gender Differences

Age and gender differences were first examined descriptively and qualitatively. Results for the first reported trauma (i.e., Trauma 1) are presented in Table 3, and are consistent with findings for the second (i.e., Trauma 2), third reported traumas (i.e., Trauma 3). Across age groups, youth reported witnessing community violence, media violence, and separation and loss events as the most common traumatic experiences. Report of media violence as a traumatic event was more prevalent in children than adolescents. Experience of motor vehicle accidents were more commonly reported by adolescents than children. In terms of gender differences in events reported, females reported the experience of physical traumas as traumatic more frequently than males.

With respect to experiences grouped into the unclassified category, there were developmental trends in the types of events reported. Report of nightmares or phobias (e.g., afraid of the dentist, or the deep end of swimming pool, or fear of certain types of animals) as potentially traumatic events was more prevalent in children than in adolescents. Report of psychopathology (i.e., eating disorders, suicide attempts, depression) and experiences related to substance use (i.e., smoking, drinking, and use of illegal drugs) as traumatic events were more prevalent in adolescents than children.

Next, analyses were conducted to examine the symptom severity of emotional distress across age and gender. Level of emotional distress was evaluated through the physical severity and psychological intensity ratings provided by the lead coder for the primary trauma reported. A 2 X 2 factorial ANOVA was conducted with age group (6–12 and 13–17) and gender as the independent variables and physical severity as the dependent variable. The results for the ANOVA indicate a significant main effect for age group [6–12, $M = 2.61$, $SD = 2.51$; 13–17, $M = 3.50$, $SD = 2.58$], $F(1, 118) = 3.35$, $p < .05$, but not for gender and no significant interaction. A 2 X 2 factorial ANOVA was run with age and gender as the independent variables and psychological intensity as the dependent variable. Results for the ANOVA indicate a significant main effect for age group [6–12, $M = 2.47$, $SD = 2.45$; 13–17, $M = 3.73$, $SD = 2.62$], $F(1, 118) = 8.89$, $p < .05$, but not for gender and no significant interaction.

Analyses on Types of Traumas

Finally, in an effort to differentiate traumatic events from stressful events we examined whether the traumatic events reported would be differentially related to emotional problems. Prior to testing whether or not various types of traumatic experiences were differentially related to PTS symptoms, a trauma grouping variable was created. From the traumas reported (*The Child PTSD Checklist* records up to three traumas), the trauma with the highest severity and intensity ratings was grouped into one of the seventeen trauma categories. Categories with at least four cases made up the trauma grouping variable (e.g., witnessing violence-family, witnessing violence-non family, media/entertainment violence, family separation and loss, non family separation and loss, emotional traumas, physical trauma, motor vehicle accidents, and unclassified). To test whether types of traumatic experiences are differentially related to total number of PTS symptoms, ANOVAs were conducted with the trauma grouping variable as the independent variable and total PTS symptoms scores RCADS Anxiety and Depression, and RCADS-P Anxiety and Depression CBCL internalizing and externalizing as the dependent variables. There were no significant differences across types of traumas in terms of PTS symptoms and other emotional symptoms.

Coder ratings of physical severity and psychological intensity did differ across types of traumas. A 2 × 2 mixed factorial ANOVA was conducted with trauma group as a between subjects factor and type of rating (physical versus psychological) as a within subjects factor. The results for the ANOVA indicate a significant main effect for trauma group [$F(8, 111) = 12.07$, $p < .001$], type of rating [$F(1, 111) = 27.58$, $p < .001$] and a significant interaction [$F(8, 111) = 8.4$, $p < .001$]. Results are depicted in Figure 1 and show that the various traumas differed in the extent to which raters perceived them as objectively serious and that some were perceived as more psychologically intense and other as more physically intense. Dunnett C post hoc tests ($p < .05$) were used for multiple between group comparisons. Dunnett C tests were used for these analyses because equal variances could not be assumed (Levene's test for homogeneity of variance was significant for both physical severity and psychological intensity). Results indicated that in terms of physical severity media/entertainment violence was rated less severe on average than witnessing violence (non-family), physical trauma, and motor vehicle accidents; and unclassified as less severe than witnessing violence (non-family). In terms of psychological intensity, media/entertainment violence was rated less intense than

witnessing violence (non-family), family separation and loss, emotional traumas, and motor vehicle accidents; unclassified was rated less than witnessing violence (non-family) and family separation and loss. Within group comparisons (paired samples t- tests) are reported in Table 6 and indicated greater psychological intensity than physical severity for witnessing violence in the family, media/entertainment violence, and family separation and loss. Among the physical traumas, physical severity ratings as greater than psychological intensity ratings approached significance ($p < .07$).

Discussion

Findings from this study help answer the call for a developmentally informed classification of stressors in youth (Grant et al., 2003) by identifying the types of events youth report as traumatic using an open ended format, exploring their emotional and behavioral salience, and by examining age and gender differences in these reports. The coding system for classifying traumatic events produced good inter-rater reliability estimates and the use of this coding system offers an initial avenue towards creating a developmentally informed classification of traumatic stressors. Results from this study also support the utility of The *Child PTSD Checklist* across a wide age range and ethnically diverse sample of youth. Internal consistency estimates of the measure as well as convergent validity of The *Child PTSD Checklist* with parent and child report of anxious and depressive symptoms support the utility of this measure for assessment of posttraumatic stress symptoms in youth. With respect to the types of events reported as traumatic by youth, findings from this sample indicate that the experience of witnessing community violence, entertainment violence, separation and loss events, and motor vehicle accidents are some of the most commonly reported traumas in youth. The most frequently reported types of traumatic events were for the most part similarly prevalent across both age and gender.

A very interesting finding, given growing concern on the role of television on emotional development in youth (cf. Comer & Kendall, 2007), was the frequency of media violence reported as a traumatic event by youth in our sample. While report of experiencing or witnessing interpersonal violence has been widely researched as a traumatic event in youth, exposure to media violence has not been extensively researched as a Criterion A1 event for PTSD in childhood. A focus of research on the topic of youth and media violence is to examine the relationship of youth exposure to violent television programming, movies, and video games to acts of aggression (Anderson et al., 2003). Almost 25% of youth ($n=29$) from this sample reported at least one event that was in the media/entertainment violence trauma category. Reports of traumas placed in this category were not related to developmental level. Of those youth reporting at least one media/entertainment trauma, about half ($n=13$) were aged 12 or older. Interestingly, media violence events were rated less objectively physically severe and psychologically intense by raters. Findings from our sample suggest that another way to untangle the relationship between exposure to media violence and its effects on children's behavior is to explore the impact of these events as potential psychological traumas in youth and such a view is consistent with the recent theorizing of Comer and Kendall (2007) on the importance of the media on youth anxiety.

Coder agreement across physical severity and psychological intensity ratings suggests that the utility of the coding system extends beyond categorization of traumatic events. These rating scales might be helpful in terms of assessing proximity and severity (i.e., Criterion A2) of events that may constitute Criterion A1 stressors in youth. Moreover, our physical and psychological intensity ratings identified age related differences in coder ratings of the events reported as traumatic. Consistent with our hypotheses, adolescents reported events considered to be more objectively severe to coders (i.e., were given higher physical severity and psychological intensity ratings) than events reported by children. It might be that adolescents

are better able to understand the nature of a traumatic event. Such findings suggest the importance of working closely with younger children in the assessment of traumatic experiences. Our results indicate no differences in physical severity and psychological intensity ratings with respect to gender.

Findings from this study are consistent with existing research on the phenomenology of PTSD in traumatized youth (Ackerman et al., 1998; Keppel-Benson et al., 2002; Saigh et al., 2002). In general PTSD symptoms on the checklist were related to other related emotional problems. Consistent with findings by Saigh et al. (2002), youth in PTS positive group evidenced significantly higher parent reported internalizing and externalizing problems as well as higher levels of self and parent reported anxious and depressive symptoms than PTS negatives. However, comparison of PTS negatives and controls were not significantly different and these findings are also consistent to those reported by Saigh et al. (2002). While these findings are in line with those reported by Saigh et al. (2002), they diverge with results of Giaconia et al. (1995). Findings reported by Giaconia and colleagues (1995) indicate that traumatized youth with PTSD suffer the same level of impairment as traumatized youth without the disorder. Discrepant findings may be due to the fact that Saigh et al. (2002) excluded youth with comorbid disorders (in an effort to control for confounds contributing to variations in CBCL scores) whereas Giaconia et al. (1995) included these youth in their study. However, most important from this set of analyses in terms of the classification of stressors, coder based physical severity and psychological intensity ratings did not differ, suggesting that the objectively viewed severity and intensity of a trauma may not be as important in distinguishing those who have emotional problems associated with trauma exposure.

Analyses examining differential relationships among traumatic experiences relative to the phenomenology of PTS symptoms and extent of emotional problems indicated that PTSD and other emotional problems were not differentially related to the type of trauma reported. However, raters did rate, on average, the various event categories as having differing severity and intensity (Figure 1). Taken together with the PTS group analyses, findings imply that individual differences in perception and interpretation of traumatic experiences rather than event typology are more associated with emotional difficulties. In other words, the extent to which an event is considered traumatic is in the eye of the child experiencing the event and this is consistent with research regarding childhood trauma. Factors such as negative appraisal of stressful events (Compas, Worsham, Ey, & Howell, 1996), maladaptive coping responses (La Greca et al., 1996; Vernberg et al., 1996; Ziedner, 1993), high levels of trait anxiety (Lonigan et al., 1994; Weems, Costa, et al., 2007), and low levels perceived self-efficacy (Joseph, Brewin, Yule, & Williams, 1993) have all been linked to increased vulnerability for the development of pediatric PTS following a traumatic event, suggesting that posttraumatic adjustment is not entirely dependent on the type of event experienced. An important conclusion from this study, therefore, is that clinicians and researchers who study traumatic stressors need to be aware of potential differences between the objective event and its subjective experience.

Findings from this study cannot be considered without limitation. Youth sampled were from the community and were not administered diagnostic interviews as part of our study. Although results regarding internal consistency and validity estimates of The *Child PTSD Checklist* indicate the utility of this measure for assessing posttraumatic stress symptoms in youth, the checklist does not indicate the time frame of the reported trauma. Our sample was not queried about the duration of the symptom disturbance, and *DSM-IV-TR* (2000) criteria specify that symptoms persist for at least a month. Moreover, the sampling strategy does not allow us to make generalizations about the prevalence of traumatic events in youth. An epidemiological sampling strategy would be needed to draw firm conclusions about prevalence. In addition, the data in this study were cross sectional and power may have also been an issue in some of

the sub-sample analyses as several of the trauma groups had small numbers, thus it will be important to replicate these findings in larger samples and in samples followed over time.

An additional limitation is that the study relied on youth's self-report of traumatic events and the checklist only queries up to three events. Given the goal of the study, a focus on youth report of the traumatic events was necessary by design and youth have been consistently found to be valid reporters (and sometimes better reporters) of their own internalizing distress (see e.g., Weems, Zakem, Costa, Cannon, & Watts, 2005). However, an examination of congruence between child reports of traumatic events and reports from other sources (such as parents) would have been an interesting adjunct to this study (e.g., the extent to which parents report the same traumatic events as their children) and may be an important next step. Moreover, if given additional space on the *Child PTSD Checklist* some youth may have reported more than three traumas.

Future research regarding childhood trauma might also include a finer grained qualitative analysis of the types of events considered traumatic in youth. Although our results indicate that the coding system developed to classify traumatic events in youth is reliable, the set of events might need expansion. Report of experiences categorized by our coding system as unclassified (e.g., nightmares, drug abuse, and psychological problems) were prevalent across youth sampled. These results are consistent with the youth sampled by Costello et al. (2002) who reported pregnancy (i.e., either becoming pregnant or getting someone pregnant), changing schools, or parent job loss as traumatic events. It is thus plausible to consider some of the unclassified items reported by adolescents in our sample as evidence of exposure to risk factors for the development of posttraumatic stress symptoms. For example, factors such as poor parental monitoring or deviant peer groups might serve as risk factors for exposure to traumatic events, as this provides youth opportunities to experience exposure to violence or unclassified items (e.g., substance use). Thus, youth from our sample who reported delinquent acts in the unclassified category may be at risk for developing the PTSD as a result of the contextual factors.

Other types of unclassified items reported by youth as traumatic include experiences of substance use, self injurious behavior, and psychological problems (e.g., depression, eating disorders). It is possible that when asked if they had experienced a traumatic event, youth from this sample reported responses experienced in the aftermath of traumatic experiences (e.g., Ruzek, 2006). Given that drug use, cutting, and depression are each common reactions to trauma, it is interesting that some youth reported these as traumatic "events". Additional studies exploring the distinctions that youth make in this regard might prove useful in developing a taxonomy of traumatic stress because what has typically been considered "reactions" may themselves be what is traumatic about an event.

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Figure 1.

Physical Severity and Psychological Intensity Ratings across Trauma Categories

wfv = witnessing violence-family, nfvv = witnessing violence-non family, mtv = media/entertainment violence, floss = family separation and loss, nfloss = non family separation and loss, ptr = physical trauma, emot = emotional traumas, mva = motor vehicle accidents, uncl = unclassified.

Table 1

Internal Consistency of the Child PTSD Checklist and Intraclass Correlation Coefficients

	Total Items	Cluster B Items	Cluster C Items	Cluster D Items	Physical Severity	Psychological Intensity
Trauma Reported ($n=122$)	.91	.80	.80	.72	.88	.90
Age						
6–12 ($n=62$)	.90	.77	.77	.73	.89	.89
13–17 ($n=60$)	.92	.84	.83	.71	.86	.90
Gender						
Females ($n=63$)	.93	.84	.85	.75	.84	.89
Males ($n=59$)	.88	.75	.71	.70	.90	.91

Note. Cluster B: Re-experiencing symptoms; Cluster C: Avoidance and Numbing; Cluster D: Hyperarousal

Table 2

Frequency of Traumatic Events by Category and Coder Agreement for Reported Traumas

Trauma Category	Category <i>N</i>	Kappa
Trauma 1 (<i>n</i> = 122)		
Witnessing Violence, Family	5	.89
Witnessing Violence, Non-Family	15	.92
Media/Entertainment Violence	22	.95
Separation and Loss, Family	15	.96
Separation and Loss, Non-Family	5	1.00
Physical Neglect, Family	1	1.00
Physical Trauma	8	1.00
Sexual Assault, Non-family	1	1.00
Emotional Trauma	4	1.00
Motor Vehicle Accidents	12	.91
Unclassified	34	.86
No Reported Trauma	78	N/A
Trauma 2 (<i>n</i> = 78)		
Witnessing Violence, Family	2	1.00
Witnessing Violence, Non-Family	6	.84
Media/Entertainment Violence	8	.80
Separation and Loss, Family	15	.92
Separation and Loss, Non-Family	1	1.00
Physical Trauma	9	.94
Sexual Assault, Non-family	1	1.00
Emotional Abuse, Family	1	1.00
Emotional Abuse, Non-Family	1	1.00
Motor Vehicle Accidents	8	.78
Natural Disasters	1	1.00
Unclassified	25	.88
Trauma 3 (<i>n</i> = 48)		
Witnessing Violence, Non-Family	7	1.00
Media/Entertainment Violence	4	1.00
Separation and Loss, Family	6	1.00
Physical Trauma	5	1.00
Sexual assault, Non-family	1	1.00
Emotional Abuse, Family	2	1.00
Motor Vehicle Accidents	2	1.00
Natural Disasters	1	1.00
Unclassified	21	.96

Table 3

Coder Agreement and Common Traumatic Events by Age Group and Gender

Trauma Category	Category <i>n</i>	Kappa
Ages 6–12 (<i>n</i> = 62)		
Witnessing Violence, Non-family	9	.87
Media/Entertainment Violence	15	1.00
Separation and loss, Family	7	.91
Unclassified	22	.93
Ages 13–17 (<i>n</i> = 60)		
Media/Entertainment Violence	7	.86
Separation and Loss, Family	9	1.00
Motor Vehicle Accidents	9	.93
Unclassified	15	.77
Girls (<i>n</i> = 63)		
Witnessing Violence, Non-family	6	1.00
Media Entertainment Violence	12	.95
Separation and Loss, Family	10	.94
Motor Vehicle Accidents	6	.82
Unclassified	19	.86
Boys (<i>n</i> = 59)		
Witnessing Violence, Non-family	9	.94
Media/Entertainment Violence	10	.94
Separation and Loss, Family	6	1.00
Motor Vehicle Accidents	6	1.00
Unclassified	15	.86

Table 4

Intercorrelations, Means and Standard Deviations for study variables (n=122)

	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
1. Child PTSD Checklist							22.26	13.99
2. RCADS Child Anxiety	.64**						64.10	16.84
3. RCADS Child Major Depression	.52**	.79**					16.77	5.07
4. RCADS Parent Anxiety	.29**	.36**	.28**				52.27	10.42
5. RCADS Parent Major Depression	.34**	.19*	.21*	.72**			13.57	3.53
6. CBCL Internalizing	.24**	.22*	.23*	.68**	.63**		52.98	11.98
7. CBCL Externalizing	.22*	.04	.06	.49**	.55**	.61**	51.86	10.78

Notes: CBCL= Child Behavior Checklist; RCADS = Revised Children's Anxiety and Depression Scale; P = Parent Report

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 5

Comparison of PTS Positives, PTS Negatives, and Controls

	PTS Positives (n = 23)	PTS Negatives (n = 99)	Controls (n = 78)	F/X ²	p
Age ¹					
Mean (SD)	11.22 (4.11)	12.38 (3.24)	10.32 (3.03)	8.77	< .01
Gender (n %)				1.07	.35
Girls	15 (65)	48 (48)	39 (50)		
Boys	8 (35)	51 (52)	39 (50)		
Ethnicity (n %)				0.30	.86
White	10 (44)	46 (47)	36 (46)		
African American	11 (48)	36 (36)	33 (43)		
Hispanic	1 (4)	9 (9)	4 (5)		
Asian	0 (0)	4 (4)	0 (0)		
Other	1 (4)	4 (4)	5 (6)		
Household income (n%)				1.82	.17
0–11,999	9 (39)	24 (24)	14 (18)		
12,000–20,999	4 (17)	12 (12)	13 (17)		
21,000–30,999	2 (9)	8 (8)	15 (19)		
31,000–40,999	1 (4)	6 (6)	7 (9)		
41,000–50,999	4 (17)	20 (20)	7 (9)		
Over 51,000	3 (13)	27 (27)	21 (27)		
Physical Severity	2.80(2.70)	2.56(2.65)	n/a	0.16	.69
Psychological Intensity	3.15(2.4)	3.28(2.65)	n/a	0.05	.83
Related Symptoms					
Mean (SD)					
CBCL Internalizing ^{2,3}	59.36(10.21)	51.52(11.91)	49.24(12.92)	5.81	< .01
CBCL Externalizing ^{2,3}	57.14(7.85)	50.65(11.03)	49.01(10.41)	5.01	< .01
RCADS Anxiety ^{2,3}	78.43(20.42)	60.68(13.96)	63.09(16.58)	11.25	< .01
RCADS-P Anxiety ²	56.50(11.75)	51.32(9.92)	49.46(9.54)	4.13	.02
RCADS Depression ^{2,3}	21.09(6.16)	15.74(4.20)	16.58(4.50)	12.11	< .01

Notes. CBCL= Child Behavior Checklist; RCADS = Revised Children’s Anxiety and Depression Scale; P = Parent Report; n/a = not applicable. One of the control participants did not report their family income.

¹ A Tukey HSD post hoc test indicates a significant difference in age between the PTS negative and control groups, $p < .05$.

² A Tukey HSD post hoc test indicates a significant difference between PTS positive and control groups, $p < .05$.

³ A Tukey HSD post hoc test indicates a significant difference between PTS positive and PTS negative groups, $p < .05$.

	PTS Positives (n = 23)	PTS Negatives (n = 99)	Controls (n = 78)	F/ χ^2	p
RCADS-P Depression ^{2,3}	15.55(4.73)	13.12(3.06)	12.77(3.19)	5.98	< .01

Table 6

Differences in Physical Severity and Psychological Intensity within Trauma Groups

	Mean Difference Physical – Psychological	Standard Deviation	<i>t</i>	<i>p</i>
Witnessing Violence- Family	−2.00	1.32	−3.38	.028
Witnessing Violence- Non-family	.43	.98	1.71	.109
Media/entertainment Violence	−.25	.48	−2.43	.024
Family Separation and Loss	−2.80	1.75	−6.19	.000
Non-family Separation and Loss	−1.30	2.39	−1.22	.290
Physical Trauma	.69	.88	2.20	.064
Emotional Trauma	−1.63	1.55	−2.10	.127
Motor Vehicle Accidents	−.08	1.14	−0.25	.806
Unclassified	−.46	1.63	−1.63	.113