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# Relationship Between Type of Trauma Exposure and Posttraumatic Stress Disorder Among Urban Children and Adolescents

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This study examines the association between trauma exposure and posttraumatic stress disorder (PTSD) among 157 help-seeking children (aged 8-17). Structured clinical interviews are carried out, and linear and logistic regression analyses are conducted to examine the relationship between PTSD and type of trauma exposure controlling for age, gender, and ethnicity. Confrontation with traumatic news, witnessing domestic violence, physical abuse, and sexual abuse are each significantly associated with PTSD. Witnessing a crime, being the victim of a crime, and exposure to accidents, fire, or disaster are not associated with PTSD. These findings underscore the association between interpersonal violence and childhood PTSD.

**Keywords:** *interpersonal violence; trauma exposure; PTSD*

Researchers have identified a range of risk factors associated with the development of PTSD among adults. One set of factors includes the frequency and severity of trauma exposure (Breslau, Davis, & Andreskie, 1995; Shalev, Tuval-Mashiach, & Hadar, 2004). A second set of factors involves the individual's personal attributes such as age, gender, education, and pre-trauma psychopathology (Tolin & Foa, 2006). The vast majority of studies on risk factors for PTSD have exclusively sampled adult populations.

Studies examining risk for PTSD among children have focused on the impact of exposure to a particular type of traumatic exposure, such as a natural disaster or motor vehicle accident (McDermott, Lee, Judd, & Gibbon, 2005; Pynoos et al., 1993; Schafer, Barkmann, Riedesser, Schulte-Markwort, 2006), and subsequent symptoms. To our knowledge, the only study that looked at the relative associations of multiple traumas to PTSD examined physical abuse, sexual abuse, and domestic violence and then lumped together all other traumas into one category (Silva et al., 2000). (The "other" category in this study included the following events: family home being broken into, being robbed or mugged, witnessing acts of violence, being seriously wounded, being in a fire, and witnessing a serious accident or death of a parent or loved one). In addition, most studies that have examined the risk of developing child PTSD have studied highly restricted samples, usually drawn from university clinic populations (Landolt, Vollrath, Ribi, Gnehm, & Sennhauser, 2003; Ostrowski, Christopher, & Delahanty, 2007).

The current study addressed the limitations of past research by sampling children and adolescents from three large urban community mental health clinics. This study was conducted as part of a larger research study in which we gathered data on the association of diverse types of trauma exposure and psychosocial functioning using self-report measures and a structured clinical interview. Linear and logistic regression analyses were conducted to examine the association between PTSD and type of trauma exposure, while controlling for the effects of age, gender, and ethnicity.

## Method

### Participants

Participants were 8- to 17-year-old youth recruited from three large urban community mental health clinics in the New York City metropolitan

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area. Data collection occurred over an 11-month period, between December 2005 and November 2006. During this time, 197 eligible families were approached for consent. Of these, 174 completed the research interview. Seventeen of these families declined to have the data used for research purposes, which yielded a final sample of 157 families.

## Measures

Exposure to trauma events and PTSD symptoms were assessed using the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1997). The K-SADS is a semistructured, clinician-administered diagnostic interview that is based on the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (American Psychiatric Association, 1994); in this interview, parent and child act as dual informants in the assessment of the child's current and lifetime psychopathology. For this study, we used the child as the primary informant and only administered the PTSD module of the K-SADS. Because the parent and child generally identified disparate trauma exposures, it would have been imprecise to generate a combined symptom score. Thus, we decided to use the child as the primary informant.

The K-SADS PTSD module includes a structured trauma exposure checklist that lists the following events: (1) being involved in a car accident, (2) being involved in other accident, (3) being involved in a fire, (4) witnessing a disaster, (5) witnessing a violent crime, (6) being victim of a violent crime, (7) receiving traumatic news, (8) witnessing domestic violence, (9) experiencing physical abuse, and (10) experiencing sexual abuse. Respondents were then asked to identify which (if any) of these 10 events they had been exposed to and then to select which event was most distressing to them at the time of the intake. Respondents were then queried about PTSD symptoms specific to the event they identified as currently most distressing. The K-SADS has good interrater reliability (Ambrosini, 2000) and concurrent validity (Kaufman et al., 1997) for current and lifetime PTSD.

## Assessors and K-SADS Reliability

The K-SADS was administered by 13 research clinicians who were master's-level social workers or psychologists, with the exception of two PhD clinical psychologists. These clinicians received extensive training in the administration of the K-SADS. To ensure that assessors were consistent in the administration of the KSADS, we conducted a reliability analysis on a subset of KSADS interviews. Approximately 15% ( $n = 23$ ) of the KSADS

interview tapes were randomly chosen for this analysis. The interviews were independently scored by a second rater, using audiotaped recordings of the interviews, to assess interrater reliability. A kappa statistic was conducted to measure pairwise agreement between the raters. The kappa statistic indicated good reliability across raters (0.74).

## Procedure

The study was reviewed and approved by the Mount Sinai School of Medicine Institutional Review Board. After completing the standard community clinic intake, all participants were approached by a research clinician who described the study, explained its voluntary nature, and obtained parent informed consent and child assent. The research clinician then administered the K-SADS as part of a larger study being conducted at the three clinics.

## Results

### Participants

A total of 157 children provided informed consent and assent to participate in the research assessment. The mean age of the sample was 12.2 ( $SD = 2.8$ ). Ninety-one (58%) of the participants were boys. Roughly one third of the participants were Hispanic (36.9%), with the remainder being Caucasian/White (27.4%), African American/Black (17.8), mixed (8.9%), or other/unknown (8.9%). A total of 38% ( $n = 60$ ) participants indicated that trauma exposure was part of the reason they presented at the mental health clinics.

### Trauma Exposure

The majority of children (88%) reported exposure to at least one traumatic event. Among exposed children, the average lifetime exposure rate was 3.1 ( $SD = 1.7$ ). (See Table 1 for the frequency of exposure to each type of traumatic event.) Of the children who reported exposure to a traumatic event, 45% reported that their exposure met Criterion A1 (i.e., life threat, serious injury, or threat to physical integrity), 47% reported that their exposure met Criterion A2 (i.e., intense fear, helplessness, or horror), and 38% reported that their exposure met diagnostic conditions for full Criterion A.

**Table 1**  
**Frequency of Exposure to Each Type of Traumatic Event**

Type of Exposure	<i>n</i>	%
Witnessing a disaster	11	7
Being involved in a fire	12	8
Being involved in a car accident	19	12
Experiencing sexual abuse	19	12
Being victim of a violent crime	27	17
Experiencing physical abuse	38	24
Being involved in other accident	50	32
Witnessing a violent crime	50	32
Witnessing domestic violence	61	39
Being confronted with traumatic news	105	67

### Type of Traumatic Exposure and PTSD

A linear regression was conducted to examine the relationship between type of trauma exposure selected as currently most distressing and total number of PTSD symptoms. An omnibus test of the model indicated that type of exposure was significantly related to number of PTSD symptoms ( $F = 6.69, p < .01$ ). Being the victim of a violent crime ( $B = 3.7, p < .05$ ), being exposed to traumatic news ( $B = 4.16, p < .01$ ), witnessing domestic violence ( $B = 4.06, p < .01$ ), experiencing physical abuse ( $B = 5.58, p < .01$ ), and experiencing sexual abuse ( $B = 5.90, p < .01$ ) were all significantly related to total number of trauma symptoms. Being in a car accident or other accident and witnessing a violent crime were not significantly associated with total number of PTSD symptoms.

A binary logistic regression was then conducted to examine the relationship between type of trauma exposure selected as currently most distressing and diagnosis of PTSD. A total of 19% ( $n = 30$ ) of the sample met full diagnostic criteria for PTSD. An omnibus test of the model indicated that type of exposure was significantly related to PTSD diagnosis ( $\chi^2 = 25.64, p = .007$ ). Experiencing physical abuse ( $p = .001$ ), hearing traumatic news ( $p = .005$ ), witnessing domestic violence ( $p = .006$ ), and experiencing sexual abuse ( $p = .035$ ) were all significantly associated with a diagnosis of PTSD. (Note: A variety of events constituted the “confrontation with traumatic news” category. These events largely included exposures to interpersonally traumatic events, such as the death of a loved one). Neither community violence

**Table 2**  
**Type of Trauma Exposure by Posttraumatic Stress Disorder**

	<i>B</i>	<i>SE</i>	Significance	Exp( <i>B</i> )	95% CI
Being involved in a car accident	2.6	1.4	.07	13.5	0.80-227.7
Witnessing a violent crime	1.4	1.1	.20	4.1	0.48-34.7
Being victim of a violent crime	2.0	1.4	.15	7.3	0.50-106.8
Being confronted with traumatic news**	2.3	0.81	.005	9.8	2.0-48.1
Witnessing domestic violence**	2.5	0.91	.006	12.0	2.0-71.5
Experiencing physical abuse**	3.4	1.0	.001	29.1	3.8-224.7
Experiencing sexual abuse*	2.2	1.0	.035	8.7	1.2-65.3
Age	0.11	0.08	.20	1.1	0.95-1.3
Gender	0.55	0.46	.23	1.7	0.70-4.3
Ethnicity	-0.35	0.26	.18	0.70	0.42-1.2

Note: CI = confidence interval.

\* $p < .05$ . \*\* $p \leq .001$ .

(i.e., witnessing violence or being the victim of violence) nor noninterpersonal trauma (i.e., accidents, fire, or disaster) was significantly associated with PTSD (see Table 2).

## Discussion

Results of the present study indicate that type of trauma exposure is significantly associated with a diagnosis of child PTSD. Although this has not been previously studied directly among child populations, our results corroborate research with adults suggesting that exposure to interpersonal trauma has greater psychosocial consequences than exposure to noninterpersonal trauma (Ford, Stockton, Kaltman, & Green, 2006). In our study, only interpersonally traumatic events (i.e., hearing traumatic news or experiencing physical abuse, sexual abuse, and domestic violence) were significantly associated with PTSD. In contrast, neither exposure to noninterpersonal events, (i.e., accidents, fire, and disaster) nor community violence (i.e., witnessing community violence or being the victim of community violence) was significantly associated with PTSD.

The finding that interpersonal trauma is more distressing than either community violence or noninterpersonal trauma is very much in line with research on adult populations. Resnick, Kilpatrick, Dansky, Saunders, and Best (1993) found that lifetime rates of PTSD associated with interpersonal

trauma ranged from 31% to 39%, whereas the lifetime rate of PTSD associated with noninterpersonal trauma was only 9%. Similarly, Kessler, Sonnega, Bromet, Hughes, and Nelson (1995) found that PTSD rates associated with rape, molestation, physical abuse, and physical attack ranged from 2% to 65% in men and from 21% to 49% in women, whereas rates of PTSD attributable to accident, natural disaster, or witnessing a traumatic event ranged from 4% to 6% in men and from 5% to 9% in women. Taken together, these findings suggest that exposure to interpersonal trauma warrants careful assessment and treatment because these events appear to have worse psychosocial consequences compared with exposure to community or noninterpersonal trauma.

An interesting finding of our study was that neither witnessing a violent crime nor being the victim of one was associated with PTSD. In contrast to this, the majority of literature on community violence suggests that exposure to this type of aggression is strongly associated with posttraumatic symptoms (DuRant, Cadenhead, Pendergrast, Slavens, & Linder, 1994; Martinez & Richters, 1993). Interestingly, a handful of studies have shown that repeated exposure to community violence does not always yield psychological distress (Farrell & Bruce, 1997; Osofsky, Wewers, Hann, & Fick, 1993). Farrell and Bruce (1997), for instance, posited that in some cases, children who experience repeated exposure to community violence are more likely to normalize this type of abuse, become desensitized to it, and therefore report low levels of distress because of it. It stands to reason, then, that children in our sample (largely from urban neighborhoods) may have been exposed to various types of community violence on a regular basis and may therefore have become desensitized and less distressed because of this type of trauma exposure. Clearly, the relationship between community violence and PTSD warrants closer examination to more fully understand the consequences of repeated exposure to this type of violence.

Our findings support the idea that different types of trauma exposure have different associations with PTSD. Our study highlighted that childhood PTSD was only associated with exposure to interpersonal trauma events (i.e., hearing traumatic news and experiencing physical abuse, domestic violence, and sexual abuse). Further research is now needed to examine the ways in which various types of traumas affect a child's functioning. This research should look closely at the type of trauma exposure as well as the frequency and severity of each exposure. Future research should also identify protective factors that may help buffer the impact of a child's exposure to various types of trauma events.



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