Trauma Exposure and Posttraumatic Stress Disorder in a National Sample of Adolescents

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Objective: Although exposure to potentially traumatic experiences (PTEs) is common among youths in the United States, information on posttraumatic stress disorder (PTSD) risk associated with PTEs is limited. We estimate lifetime prevalence of exposure to PTEs and PTSD, PTE-specific risk of PTSD, and associations of sociodemographics and temporally prior *DSM-IV* disorders with PTE exposure, PTSD given exposure, and PTSD recovery among U.S. adolescents. **Method:** Data were drawn from 6,483 adolescent–parent pairs in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A), a national survey of adolescents aged 13 through 17 years. Lifetime exposure to interpersonal violence, accidents/injuries, network/witnessing, and other PTEs was assessed along with *DSM-IV* PTSD and other distress, fear, behavior, and substance disorders. **Results:** A majority (61.8%) of adolescents experienced a lifetime PTE. Lifetime prevalence of *DSM-IV* PTSD was 4.7% and was significantly higher among females (7.3%) than among males (2.2%). Exposure to PTEs, particularly interpersonal violence, was highest among adolescents not living with both biological parents and with pre-existing behavior disorders. Conditional probability of PTSD was highest for PTEs involving interpersonal violence. Predictors of PTSD among PTE-exposed adolescents included female gender, prior PTE exposure, and pre-existing fear and distress disorders. One-third (33.0%) of adolescents with lifetime PTSD continued to meet criteria within 30 days of interview. Poverty, U.S. nativity, bipolar disorder, and PTE exposure occurring after the focal trauma predicted nonrecovery. **Conclusions:** Interventions designed to prevent PTSD in PTE-exposed youths should be targeted at victims of interpersonal violence with pre-existing fear and distress disorders, whereas interventions designed to reduce PTSD chronicity should attempt to prevent secondary PTE exposure. J. Am. Acad. Child Adolesc. Psychiatry, 2013;52(8):815–830. **Key Words:** posttraumatic stress disorder (PTSD), trauma, violence

Epidemiological data show that adolescence is the developmental period of highest risk of exposure to many types of potentially traumatic events (PTEs), including interpersonal violence, accidents, injuries, and numerous traumatic network events (i.e., PTEs occurring to loved ones).[1-3] Public health efforts to prevent potential adolescent traumatic event exposure require accurate risk factor data. National surveys have examined sociodemographic variation in exposure to child–adolescent PTEs involving interpersonal violence,[2,4] and basic correlates of other child–adolescent PTEs have been reported in community studies.[5-8] These studies indicate that PTE exposure varies by basic sociodemographics (e.g., age, sex, race/ethnicity, socioeconomic status),[2,4,7-9] although most studies have examined a relatively narrow range of both risk factors and PTEs. Recent evidence from 2 cohort studies suggests that externalizing, but not internalizing, psychopathology also predicts child–adolescent PTE exposure, particularly interpersonal violence,[10,11] although neither study was based on a broadly representative sample.

Posttraumatic stress disorder (PTSD) can develop after PTE exposure.[12] PTSD is associated

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Supplemental material cited in this article is available online.

with substantial role impairment and heightened risk of secondary mental and physical disorders.[13,14] Although numerous studies have examined youth PTSD in relation to specific types of PTEs, no data are available on the associations of a full range of sociodemographic factors, PTE characteristics, and prior psychopathology with PTSD risk in a national sample of youths in the United States. It is consequently unknown whether PTSD prevalence, distribution, and vulnerability factors follow the same population patterns among youths as among adults. Although useful data on PTSD risk factors exist in focused studies of youths exposed to specific types of PTEs, such as natural disaster,[15] terrorism,[16] and war,[17] methodological differences across studies make comparisons across different types of PTEs difficult. Community studies have produced mixed findings regarding risk factors for PTSD in youths, with both sociodemographics and pre-existing mental disorders only inconsistently associated with PTSD. For example, after controlling for PTEs, some studies find higher PTSD risk for females than for males[8,9] and others no gender difference.[6] Among youths exposed to PTEs, heightened PTSD risk has inconsistently been linked to prior externalizing[10] and internalizing[11] disorders.

Roughly 50% of cases of PTSD become chronic and persist for many years.[18,19] Much of the public health burden of PTSD is consequently associated with chronic cases, highlighting the importance of identifying predictors of chronic course. However, we are aware of only 1 population-based study examining patterns and predictors of PTSD persistence among youths.[19]

The current report uses data from the National Comorbidity Survey Replication Adolescent Supplement (NCS-A), a population-based sample of U.S. adolescents, to describe the epidemiology of PTE exposure and PTSD among youths, including prevalence and correlates of PTE exposure, variation in conditional probability of PTSD given PTE exposure, and PTSD recovery. The predictors considered here include type of PTE, sociodemographics, and temporally prior mental disorders.

METHOD

Sample

As described in more detail elsewhere,[20,21] the NCS-A was based on a national dual-frame household and school sample of adolescents aged 13 through 17 years. Face-to-face interviews were administered to adolescents, and self-administered questionnaires (SAQs) were given to 1 parent or guardian of each adolescent. Data were collected between February 2001 and January 2004. Written informed consent was obtained from parents before approaching adolescents. Written adolescent assent was then obtained before surveying either adolescents or parents. Both adolescents and parents were paid $50 for participation. Recruitment and consent procedures were approved by the Human Subjects Committees of Harvard Medical School and the University of Michigan.

The NCS-A household sample included adolescents recruited from households that participated in the National Comorbidity Survey Replication (NCS-R), a national household survey of adult mental disorders.[22] A total of 879 school-attending adolescents participated in the household survey, with a conditional (on adult NCS-R participation, which had a 72.6% response rate) response rate of 86.8%. An additional 9,244 adolescents were recruited from a representative sample of schools in NCS-R sample areas. The adolescent response rate in the school sample (conditional on school participation) was 82.6%. Although the proportion of initially selected schools that participated in the NCS-A was low (28.0%), replacement schools were carefully matched to the original schools. Comparison of household sample respondents from nonparticipating schools with school sample respondents from replacement schools found no evidence of bias in estimates of either prevalence or correlates of mental disorders.[20] The total NCS-A sample, combining household and school samples, included 10,123 adolescents.

The conditional (on adolescent response) response rate of the parent SAQ, which asked about developmental history and mental health of the participating adolescent, was 82.5% to 83.7% in the household–school samples. The 8,470 parents who completed SAQs included 6,483 who completed the long form (which took approximately 1 hour to complete) and 1,987 the short form (which took approximately half an hour to complete). An initial attempt was made to obtain a long-form SAQ from all participating parents. The short form was obtained, often by telephone, only when it was not possible to obtain the long-form SAQ.

The current report focuses on the 6,483 adolescent–parent pairs for whom data were available from both adolescent interviews and long-form SAQs. Cases were weighted for variation in within-household probability of selection in the household sample and then separately in the household and school samples, for differential nonresponse based on available data about non-respondents as well as for residual discrepancies between sample and population sociodemographic and geographic distributions. Sociodemographic information on the NCS-A sample is provided in Table S1, available online. The weighted household and school samples were merged, with sums of

weights proportional to relative sample sizes adjusted for design effects in estimating disorder prevalence. These weighting procedures are detailed elsewhere.[20] The weighted sociodemographic distributions of the composite sample closely approximate those of the U.S. Census population.[21]

Measures

Adolescents were administered a modified version of the Composite International Diagnostic Interview (CIDI), a fully structured interview administered by trained lay interviewers that assesses lifetime and past-year *DSM-IV* disorders.[23] CIDI PTSD assessment began with questions about lifetime exposure to 19 PTEs that qualify for the *DSM-IV* A1 criterion, including 9 types of interpersonal violence (e.g., physical abuse by a caregiver, rape, kidnapping by a stranger or caregiver), 5 types of accidents (e.g., automobile accident, man-made or natural disaster), 3 types of network and witnessing events (e.g., unexpected death of loved one, witnessing death or serious injury), and 2 open-ended questions about other PTEs not explicitly included in the list as well as about PTEs that respondents did not want to describe concretely (all PTE categories are listed in Table 1). Additional questions asked about age at first exposure and number of lifetime occurrences of each endorsed PTE.

Respondents who reported ever experiencing 1 or more PTEs were asked a screening question about whether any of these experiences was associated with symptoms such as upsetting memories or dreams, feeling emotionally distant or depressed, having trouble sleeping or concentrating, and feeling jumpy or easily startled. Respondents who answered affirmatively and had more than 1 lifetime PTE were asked to identify the PTE associated with the largest number of these symptoms. Individual PTSD symptoms were assessed for that "worst" PTE. Respondents unable to identify a worst PTE were assigned one at random from those that they had experienced, whereas respondents with only 1 PTE were asked about symptoms associated with that PTE. Questions assessed *DSM-IV* Criteria A2 (fear, helplessness, shock, horror at the time of the event), B (re-experiencing), C (avoidance–numbing), D (arousal), E (duration), and F (distress and impairment). Respondents who met *DSM-IV* criteria were asked about whether they still had symptoms and the number of months or years that symptoms persisted. A clinical reappraisal study that blindly reinterviewed a subsample of NCS-A respondents with the Schedule for Affective Disorders and Schizophrenia for School-Age Children Lifetime Version (K-SADS)[24] found that the 44% of respondents who endorsed the PTSD screening question accounted for 85% of clinically confirmed cases of PTSD.

Additional lifetime *DSM-IV*/CIDI disorders assessed in the survey included fear disorders (panic disorder with or without agoraphobia, agoraphobia without history of panic disorder, social phobia, specific phobia, and intermittent explosive disorder), distress disorders (major depressive disorder [MDD]/dysthymia, generalized anxiety disorder, and separation anxiety disorder), behavior disorders (attention-deficit/hyperactivity disorder [ADHD], oppositional defiant disorder [ODD], and conduct disorder [CD]), substance use disorders (alcohol abuse with or without dependence, and drug abuse with or without dependence), and bipolar I-II and subthreshold bipolar disorder. Parents provided information about adolescent symptoms of MDD/dysthymia, ADHD, ODD, and CD. Parent and adolescent reports for these disorders showed generally good concordance and were combined at the symptom level using an "or" rule, such that a symptom was considered present if it was endorsed by either respondent.

As reported elsewhere,[25] the K-SADS clinical reappraisal study found good concordance between lifetime CIDI/SAQ and K-SADS diagnoses, with area under the receiver operating characteristic curve (AUC) of 0.79 for PTSD, 0.80 to 0.87 for other distress disorders, 0.81 to 0.94 for fear disorders, 0.78 to 0.98 for behavior disorders, 0.56 to 0.98 for substance disorders, and 0.87 for any disorder.

Data Analysis

Prevalence was estimated with cross-tabulations (for number of respondents with PTE exposure and PTSD, see Table S2, available online). Cumulative lifetime age-at-onset curves for PTE exposure were calculated using the actuarial method.[26] Correlates of first exposure to each lifetime PTE, PTSD among those exposed to PTEs, and PTSD recovery were examined using discrete-time survival analysis with person-year (onset) or person-month (recovery) as the unit of analysis and a logistic link function.[27] Sociodemographic factors considered in the analysis included sex, person-year (<5, 5–10, 11–13, 14–15, ≥16), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, other), parent education (high school graduate or less versus any postsecondary schooling), poverty (household income less than 3 times versus more than 3 times the poverty line), number of biological parents living with the respondent, urbanicity (major metropolitan or other urban area versus rural), and nativity (U.S.-born versus non–U.S.-born). Sociodemographic factors were based on adolescent report, with the exception of poverty, which was based on parent report. Models also included counts of the number of lifetime *DSM-IV* disorders that the respondent had before the age of the focal PTE. Disorders were grouped according to the results of a previous factor analysis that found NCS-A lifetime disorders to cluster into fear, distress, behavior, substance, and bipolar disorders.[28]

The models examining PTE exposure were initially estimated for each of the 19 PTEs; however, inspection

TABLE 1 Prevalence of Exposure to Potentially Traumatic Experiences (PTEs) and of *DSM-IV*/CIDI Posttraumatic Stress Disorder (PTSD) in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A) (N = 6,483)

	Lifetime PTE Exposure[a]		Proportion of Times PTE Was Chosen as Worst Among Those Exposed[b]		Risk of Lifetime PTSD Among All Those Exposed to PTE[c]		Lifetime PTSD Among All Who Chose PTE as Worst[d]		30-Day PTSD Among Lifetime Case Patients[e]		30-Day PTSD Among Lifetime Case Patients Who Chose PTE as Worst[f]	
	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)
Any PTE	61.8	(0.9)	100.0	(0.0)	7.6	(0.6)	7.6	(0.6)	33.0	(4.6)	33.0	(4.6)
PTE type												
Interpersonal violence												
Kidnapped	0.6	(0.2)	13.7	(5.7)	37.0	(13.5)	—	—[g]	—	—[g]	—	—[g]
Physical abuse by caregiver	2.0	(0.3)	39.3	(8.1)	25.2	(6.0)	31.0	(9.8)	45.8	(14.8)	53.6	(25.8)
Physical assault by romantic partner	1.3	(0.4)	—	—[g]	29.1	(12.5)	—	—[g]	30.2	(12.2)	—	—[g]
Other physical assault	5.2	(0.4)	40.2	(6.0)	11.5	(2.9)	—	—[g]	50.5	(16.8)	—	—[g]
Mugged/threatened with weapon	7.6	(0.7)	29.7	(2.3)	11.5	(2.1)	—	—[g]	38.6	(11.0)	88.2	(6.6)
Rape	2.5	(0.3)	36.7	(5.7)	39.3	(5.5)	41.1	(7.4)	44.7	(9.0)	48.9	(10.2)
Sexual assault	3.8	(0.4)	38.8	(4.4)	31.3	(4.2)	30.8	(7.5)	29.2	(7.5)	—	—[g]
Stalked	4.4	(0.5)	29.1	(4.9)	19.7	(4.4)	9.2	(3.7)	24.0	(7.1)	—	—[g]
Witnessed domestic violence	7.5	(0.5)	42.8	(3.0)	15.6	(2.3)	7.1	(2.5)	40.1	(10.3)	—	—[g]
Accidents												
Automobile accident	7.8	(0.6)	52.8	(2.6)	13.0	(2.6)	7.1	(2.5)	24.0	(9.1)	—	—[g]
Other life-threatening accident	7.9	(0.5)	42.6	(3.1)	10.3	(2.2)	3.7	(1.6)	47.1	(12.7)	—	—[g]
Man-made/natural disaster	14.8	(0.9)	47.1	(2.4)	6.5	(1.5)	—	—[g]	—	—[g]	—	—[g]
Life-threatening illness	6.2	(0.4)	44.0	(3.0)	11.4	(2.7)	—	—[g]	29.7	(11.9)	—	—[g]
Accidentally harmed others	1.0	(0.2)	20.0	(8.3)	—	—[g]	—	—[g]	—	—[g]	—	—
Network/witnessing												
Unexpected death of loved one	28.2	(0.8)	63.0	(1.8)	10.3	(1.2)	8.7	(1.4)	34.9	(6.3)	36.6	(6.5)
Traumatic event to loved one	8.9	(0.5)	36.6	(2.8)	15.8	(2.8)	—	—[g]	42.3	(8.3)	—	—[g]
Witnessed death/injury	11.7	(0.9)	44.6	(3.2)	10.6	(2.3)	7.1	(2.7)	26.6	(7.4)	—	—[g]
Other												
Other event	7.0	(0.5)	48.9	(4.5)	13.3	(1.9)	7.5	(2.4)	24.9	(7.2)	40.9	(15.7)
Private event	5.8	(0.5)	41.9	(4.7)	17.8	(3.0)	13.8	(4.1)	45.0	(9.5)	56.8	(16.4)
			χ^2_{17}[h] = 329.8*		χ^2_{17}[h] = 430.8*		χ^2_{10}[h] = 64.3*		χ^2_{15}[h] = 43.8*		χ^2_{5}[h] = 31.5*	

Note: SE = standard error.

[a] *Prevalence estimates reported are the percentage of the 6,483 youths in the total sample who ever experienced each of the PTEs.*

[b] *Respondents with a lifetime PTE were asked to select the worst PTE (i.e., the PTE associated with the worst symptoms). PTSD was queried in relation to this worst PTE. Respondents with only 1 PTE were asked about that PTE; respondents with multiple PTEs who were unable to identify a worst were assigned one using a random number generator.*

[c] *Proportion of respondents that meet criteria for lifetime PTSD among those exposed to each PTE.*

[d] *Proportion of respondents that meet criteria for lifetime PTSD among those who selected a PTE as their worst.*

[e] *Proportion of respondents with 30-day PTSD among lifetime cases exposed to each PTE.*

[f] *Proportion of respondents with 30-day PTSD among lifetime cases who selected a PTE as their worst.*

[g] *Estimate not reported due to low precision.*

[h] *χ^2 Tests were used to evaluate the significance of differences across PTEs in the probability that a given PTE would be chosen as worst among those exposed, in risk of lifetime PTSD among all those exposed to the PTE, and in 30-day prevalence of PTSD among lifetime cases, as information about lifetime exposure to all PTEs was used in these equations whether or not the PTE was selected as worst.*

** Significant at the .05 level, 2-sided test.*

of coefficients led to collapsing the PTEs into a smaller set of 14 to combine those with similar correlates (e.g., rape and sexual assault) for purposes of the current report. (Results of models for the larger set of 19 are available upon request.)

A series of progressively more complex multivariate survival models examined factors associated with PTSD onset beginning with sociodemographics (model 1) and then adding counts of temporally prior mental disorders (model 2) in the total sample. Subsequent models were estimated in the sub-sample of respondents with at least 1 lifetime PTE, including a model with only sociodemographics (model 3), then adding type of worst event (model 4), exposure to prior PTEs (model 5), and *DSM-IV* disorders with onsets before PTSD (model 6). Factors associated with PTSD recovery were examined in a similar set of progressively more complex survival models based on retrospective reports by respondents with lifetime PTSD about the duration of their episodes. Only sociodemographics were included in Model 1. Model 2 added type of worst event. Model 3 added variables for prior PTEs. Model 4 added information about PTEs that occurred in the same year or after the worst event. Model 5 added variables for number of *DSM-IV* disorders with onsets before PTSD. Information about disorders with onsets subsequent to PTSD was not examined, based on concerns that these temporally secondary disorders could be PTSD severity markers. Survival coefficients and their standard errors were exponentiated and are reported as odds ratios (ORs) and 95% confidence intervals (CIs). All significance tests were evaluated using 0.05-level 2-sided tests. The design-based Taylor series method implemented in SAS software (SAS Institute, Cary, NC) was used to estimate standard errors.

RESULTS

Prevalence of Potentially Traumatic Experiences and PTSD

Most adolescents (61.8%) reported at least 1 lifetime PTE (29.1% reported 1 PTE, 14.1% 2 PTEs, and 18.6% 3 or more PTEs). The most common PTEs were unexpected death of a loved one (28.2%), man-made/natural disasters (14.8%), and witnessing death/serious injury (11.7%). (Table 1) Median age of first PTE exposure among those exposed was earliest for kidnapping, physical abuse by caregiver, and witnessing domestic violence, and was latest for stalking, mugging, experiencing an automobile accident, and being beaten up by romantic partner (Figures 1 and 2). Probability of a PTE type being selected as worst varied significantly across types ($\chi^2_{17} = 329.8$, $p < .001$), due largely to variation in prevalence. Lifetime prevalence of *DSM-IV* PTSD was 7.6% among the 61.8% of respondents exposed to a PTE (4.7% in the total sample; 7.3% among female and 2.2% among male participants) and varied significantly by PTE type both when considering all lifetime PTEs ($\chi^2_{17} = 430.8$, $p < .001$) and in considering only worst PTEs ($\chi^2_{10} = 64.3$, $p < .001$). Rape was associated with the highest conditional probability of PTSD (39.3%), followed by kidnapping (37.0%), sexual assault (31.3%), physical assault by

FIGURE 1 Age of first exposure to potentially traumatic experiences (PTEs) involving interpersonal violence in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A) among adolescents exposed to each PTE (N = 6,483).

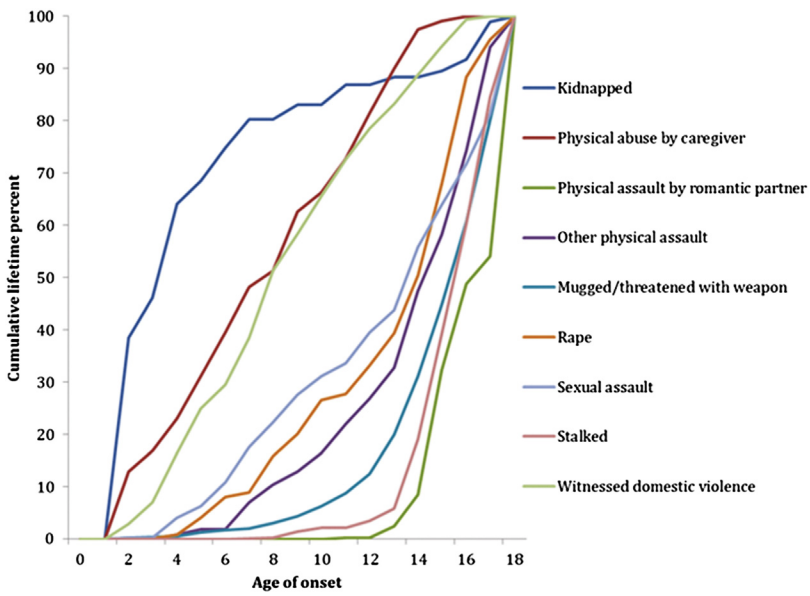
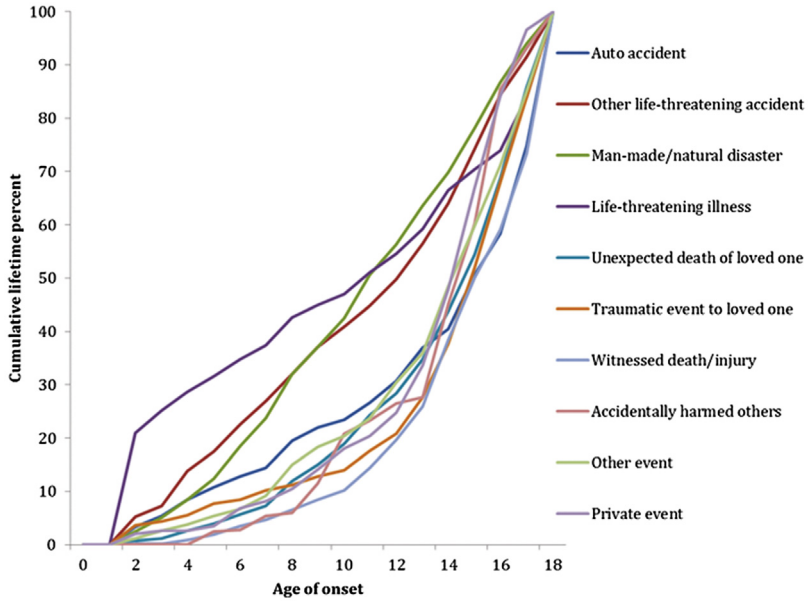


FIGURE 2 Age of first exposure to other potentially traumatic experiences (PTEs) in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A) among adolescents exposed to each PTE (n=6,483).



romantic partner (29.1%), and physical abuse by caregiver (25.2%) in the analysis of all lifetime PTEs, with similar variation in the analysis of worst PTEs. PTSD persistence also varied across PTEs ($\chi^2_{15} = 43.8$, $p < .001$), with the highest 30-day persistence for physical assault (50.5%), other life-threatening accident (47.1%), physical abuse by caregiver (45.8%), private events (i.e. events the respondent did not want to disclose to the interviewer) (45.0%), and rape (44.7%).

Correlates of PTE Exposure

PTE exposure varied by age, with network/witnessing events, most types of interpersonal violence, disasters, and automobile accidents most likely to occur for the first time in later adolescence than in childhood or earlier adolescence, whereas kidnapping, physical abuse by a caregiver, witnessing domestic violence, and life-threatening accidents/illness all had highest odds of first occurring in childhood or early adolescence (Figures 1 and 2). Most PTEs also varied in prevalence by gender (Tables 2 and 3). Females had higher odds than males of experiencing physical assault by a romantic partner, stalking, rape/sexual assault, unexpected death of loved one, and PTE occurring to a loved one (ORs = 1.7–13.6). Male adolescents had higher odds than female adolescents of experiencing accidents and physical assault and witnessing death/injury (ORs = 1.4–3.3).

Race/ethnicity was inconsistently associated with PTE exposure, with some PTEs more common among non-Hispanic whites (e.g., witnessing domestic violence) and others among non-Hispanic blacks (e.g., unexpected death of loved one), Hispanics (e.g., physical assault by romantic partner), or others (e.g., other physical assault). Adolescents in urban areas had higher odds of physical abuse by a caregiver and trauma to a loved one (OR = 1.4–1.7) and lower odds of automobile accidents (OR = 0.7) than those in rural areas. Adolescents living with fewer than 2 biological parents experienced elevated odds of numerous events, including most types of interpersonal violence and network/witnessing events as well as other/private events (OR = 1.2–24.2). We also examined 3 sociodemographic factors not shown in the tables—nativity, parent education, and family income—all of which were, for the most part, unrelated to PTE exposure (see Table S3–S4, available online).

Pre-existing behavior disorders were associated with elevated ORs of two-thirds of PTEs, including most types of interpersonal violence (OR = 1.2–3.4). Fear (OR = 1.2–1.3) and distress (OR = 1.3–2.1) disorders were associated with approximately half of PTEs each, particularly network/witnessing events. Substance disorders were associated with nearly half of PTEs (ORs=1.7–3.5). Other/private events were associated with all 4 classes of mental disorder.

TABLE 2 Associations (Odds Ratios [OR]) of Sociodemographics and Prior Mental Disorders With Exposure to Potentially Traumatic Experiences (PTEs) Involving Interpersonal Violence in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (N = 6,483)

	Kidnapping		Physical Abuse by Caregiver		Physical Assault by Romantic Partner		Other Physical Assault/Mugged/ Threatened with Weapon[b]		Rape/Sexual Assault[b]		Stalking		Witnessing Domestic Violence	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Sex														
Female	1.1	(0.4–2.9)	1.0	(0.6–1.6)	7.0*	(2.3–21.5)	0.3*	(0.2–0.4)	13.6*	(8.1–22.7)	4.5*	(2.5–8.2)	1.2	(0.9–1.7)
Male	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1		0.1		0.0		11.7*		50.1*		97.7*		24.3*		1.4
Race/ethnicity														
Hispanic	0.6	(0.1–2.7)	0.7	(0.3–1.8)	6.1*	(2.0–18.9)	1.7*	(1.1–2.6)	0.9	(0.5–1.6)	2.3*	(1.2–4.4)	0.8	(0.5–1.5)
Non-Hispanic black	0.2*	(0.1–0.8)	0.3*	(0.1–0.8)	0.3	(0.1–1.6)	0.9	(0.6–1.2)	0.5*	(0.3–0.9)	1.9*	(1.1–3.3)	0.6*	(0.4–0.9)
Other	0.7	(0.2–2.4)	1.0	(0.4–2.6)	0.8	(0.2–3.2)	1.8*	(1.1–3.0)	1.4	(0.6–3.0)	1.5	(0.6–3.5)	1.8	(0.9–3.4)
Non-Hispanic white	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_3		5.6		5.4		13.5*		21.4*		6.0		7.6		13.3*
Urbanicity														
Metro/other urban	0.8	(0.3–2.4)	1.7*	(1.1–2.7)	1.1	(0.3–3.5)	1.1	(0.7–1.6)	1.1	(0.7–1.7)	1.0	(0.6–1.5)	1.4	(1.0–1.9)
Rural	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1		0.1		5.3*		0.0		0.2		0.1		0.0		3.3
Biological parents in home														
≤1	24.2*	(8.9–65.8)	8.1*	(3.4–19.8)	0.5	(0.2–1.6)	1.7*	(1.3–2.4)	3.1*	(2.0–4.7)	0.8	(0.5–1.1)	4.5*	(2.4–8.5)
2	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1		39.0*		21.5*		1.2		12.4*		26.5*		1.9		22.9*
Prior mental disorders[c]														
Fear	0.9	(0.4–2.2)	1.2	(0.8–1.8)	1.4	(1.0–2.1)	1.3*	(1.1–1.7)	1.1	(0.9–1.4)	1.2	(1.0–1.5)	1.3*	(1.0–1.6)
Distress	1.5	(0.7–3.1)	1.1	(0.6–1.8)	2.1*	(1.1–3.7)	1.2	(0.9–1.6)	1.5*	(1.1–1.9)	1.4*	(1.1–1.8)	1.2	(0.8–1.8)
Behavior	0.8	(0.5–1.3)	1.6*	(1.1–2.4)	3.4*	(1.9–5.9)	1.5*	(1.3–1.7)	1.8*	(1.4–2.3)	2.3*	(1.8–3.0)	1.1	(0.9–1.4)
Substance	3.5*	(1.0–11.9)	0.5	(0.1–2.9)	2.5*	(1.2–5.0)	2.0*	(1.4–2.8)	0.8	(0.4–1.5)	1.9*	(1.4–2.7)	1.5	(0.5–4.0)
Bipolar	3.4*	(1.0–11.1)	0.7	(0.1–4.7)	0.7	(0.2–3.2)	1.2	(0.8–1.8)	2.1*	(1.1–4.0)	0.9	(0.5–1.5)	1.7	(0.7–3.9)
χ^2_5		7.3		13.8*		83.4*		145.2*		81.3*		102.6*		18.3*

Note: Metro = metropolitan area.

[a] *Models were estimated using discrete-time survival analysis with person-years as the unit of analysis.*

[b] *Based on preliminary analysis showing similar patterns of association of predictors with specific PTEs, PTEs were combined for analysis. To do so, we created a consolidated data file that stacked each of the separate PTE-specific person-year data arrays and included dummy variables to distinguish among the files, thereby forcing the estimated slopes of PTE exposure on predictors to be constant across the combined PTEs in each file. Results are based on these consolidated data arrays.*

[c] *Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before first occurrence of each PTE.*

* *Significant at the .05 level, 2-sided test.*

TABLE 3 Associations (Odds Ratios [OR]) of Sociodemographics and Prior Mental Disorders With Exposure to Other Potentially Traumatic Experiences (PTEs) in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (n = 6,483)

	Auto Accident/ Accidentally Harmed Others[b]		Other Life-Threatening Accident/Life-Threatening Illness[b]		Man-made/ Natural Disaster		Unexpected Death of a Loved One		PTE to Loved One		Witnessing Injury or Death		Other/Private Event	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Sex														
Female	0.6*	(0.5–0.8)	0.6*	(0.5–0.7)	0.7*	(0.6–0.9)	1.4*	(1.2–1.5)	1.7*	(1.3–2.2)	0.6*	(0.5–0.7)	1.3	(1.0–1.8)
Male	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1	20.8*		23.5*		8.2*		24.1*		12.4*		41.1*		3.8	
Race/ethnicity														
Hispanic	1.4*	(1.0–1.9)	1.0	(0.7–1.4)	1.1	(0.8–1.6)	1.2	(0.9–1.5)	1.2	(0.9–1.6)	1.6*	(1.2–2.1)	1.1	(0.8–1.7)
Non-Hispanic black	1.4*	(1.0–1.8)	0.8	(0.6–1.1)	1.3	(0.9–1.8)	1.4*	(1.2–1.7)	1.1	(0.8–1.5)	2.1*	(1.6–2.8)	1.7*	(1.2–2.3)
Other	2.0	(0.8–4.6)	1.5	(0.9–2.5)	1.4	(0.9–2.2)	1.0	(0.7–1.3)	0.8	(0.4–1.6)	1.7*	(1.1–2.7)	1.3	(0.9–2.0)
Non-Hispanic white	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_3	6.0		4.0		3.2		19.5*		2.2		50.7*		10.4*	
Urbanicity														
Metro/other urban	0.7*	(0.5–0.9)	1.2	(1.0–1.5)	1.2	(0.9–1.5)	1.0	(0.9–1.1)	1.4*	(1.0–1.9)	1.4	(1.0–2.0)	1.5	(1.0–2.2)
Rural	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1	8.5*		3.7		1.8		0.0		5.2*		3.8		3.5	
Biological parents in home														
≤1	1.5	(0.9–2.3)	1.3	(1.0–1.6)	1.3	(1.0–1.7)	1.3*	(1.1–1.6)	1.3*	(1.0–1.7)	1.3	(0.9–1.7)	1.2*	(1.0–1.5)
2	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1	2.3		3.7		2.9		9.4*		4.4*		2.4		4.1*	
Prior mental disorders[c]														
Fear	1.2	(1.0–1.6)	1.2	(1.0–1.4)	1.3*	(1.1–1.6)	1.3*	(1.1–1.5)	1.2*	(1.0–1.4)	1.3*	(1.1–1.6)	1.2*	(1.1–1.4)
Distress	1.2	(0.9–1.6)	1.6*	(1.3–2.1)	0.8	(0.6–1.0)	1.0	(0.8–1.2)	1.4*	(1.1–1.8)	1.4*	(1.1–1.7)	1.3*	(1.0–1.6)
Behavior	1.1	(0.9–1.3	1.3*	(1.1–1.5)	1.1	(0.8–1.5)	1.2*	(1.1–1.4)	1.4*	(1.2–1.8)	1.1	(0.9–1.4)	1.5*	(1.3–1.9)
Substance use	1.7*	(1.2–2.4)	0.7	(0.4–1.2)	1.2	(0.5–2.7)	1.1	(0.9–1.3)	1.2	(0.9–1.7)	1.7*	(1.2–2.5)	2.2*	(1.6–3.2)
Bipolar	0.7	(0.4–1.5)	1.2	(0.6–2.6)	1.5	(0.6–4.1)	1.0	(0.7–1.4)	1.1	(0.7–1.9)	0.8	(0.5–1.3)	1.5	(1.0–2.3)
χ^2_5	26.3*		61.1*		21.8*		33.5*		59.9*		35.8*		167.1*	

Note: Metro = metropolitan area.

[a] *Models were estimated using discrete-time survival analysis with person-years as the unit of analysis.*

[b] *Based on preliminary analysis showing similar patterns of association of predictors with specific PTEs, PTEs were combined for analysis. To do so, we created a consolidated data file that stacked each of the separate PTE-specific person-year data arrays and included dummy variables to distinguish among the files, thereby forcing the estimated slopes of PTE exposure on predictors to be constant across the combined PTEs in each file. Results are based on these consolidated data arrays.*

[c] *Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before first occurrence of each PTE.*

* *Significant at the .05 level, 2-sided test.*

Bipolar disorder was associated only with rape/sexual assault and kidnapping (OR = 2.1–3.4).

PTSD Onset

Sociodemographic factors associated with PTSD in the total sample included female gender (OR = 3.5), living with fewer than 2 biological parents (OR = 2.0), and PTE exposure in early–late adolescence (OR = 1.4–1.6) compared to early childhood (model 1; Table 4; detailed results for all correlates are in Table S5, available online). Prior mental disorders explained the association of age with PTE exposure (model 2) because of significant associations of fear, distress, substance, and bipolar disorders with PTSD onset in the total sample (OR = 1.5–2.0).

Subsequent models of PTSD onset focused on the subsample of adolescents exposed to a PTE. Sociodemographic factors associated with PTSD in that subsample (gender, living with fewer than 2 biological parents, PTE exposure in early–late adolescence) (model 3) were compared in magnitude to those in model 1 to determine which factors continued to be associated with PTSD onset after controlling for PTE exposure. Consistent with the unadjusted results in Table 1, PTSD risk varied significantly depending on type of worst PTE ($\chi^2_{19} = 499.0$, $p < .001$) (model 4). Controls for worst PTE explained the association of age with PTSD but did not explain the associations involving female gender or number of biological parents in the home. The latter demonstrates that the associations of female sex and number of biological parents with PTSD in the total sample are due to differential vulnerability to PTSD among youths exposed to PTEs rather than to differential likelihood of PTE exposure. History of prior PTE exposure was associated with PTSD onset in a subsequent model ($\chi^2_{19} = 279.7$, $p < .001$) (model 5), and prior PTE exposure explained the vulnerability associated with number of biological parents. A final model (model 6) showed that prior fear (OR = 1.7) and distress (OR = 1.8) disorders were also significantly associated with vulnerability to PTSD, but did not explain the association of female gender with PTSD.

PTSD Recovery

As shown in Table 1, 33.0% of lifetime PTSD cases met criteria for PTSD in the 30 days before the interview. Among those who recovered, mean time to recovery (SE) was 14.8 months (3.4). Sociodemographic factors associated with recovery (model 1) included being born outside the United States, which was associated with high odds of recovery (OR = 11.9), and high poverty, which was associated with low odds of recovery (OR = 0.3) (Table 5; detailed results for all correlates are in Table S6, available online). These associations were unchanged when controls were introduced for worst PTE types, as worst PTEs were unrelated to recovery ($\chi^2_3 = 1.0$, $p = .80$) (model 2). Associations of sociodemographics and worst PTEs with PTSD recovery were unchanged when prior PTEs (model 3) and PTEs occurring after the worst event (model 4) were included; neither prior ($\chi^2_4 = 3.6$, $p = .46$) nor subsequent ($\chi^2_4 = 5.6$, $p = .24$) PTEs predicted recovery. However, when counts of temporally prior mental disorders were added (model 5), PTEs occurring after the worst event were significantly associated with low odds of PTSD recovery (OR = 0.2–1.1; $\chi^2_4 = 12.6$, $p = .013$). Bipolar disorder was also associated with low odds of recovery (OR = 0.0).

DISCUSSION

Nearly two-thirds of U.S. adolescents report experiencing 1 or more PTEs by age 17 years, indicating substantial exposure to PTEs during childhood and adolescence, and 4.7% of U.S. adolescents meet lifetime criteria for PTSD. This prevalence estimate falls in the middle of those from previous U.S. surveys[5,29] and is higher than the estimate in a recent European study.[30] Our results on PTE exposure document clearly that PTEs do not occur at random, as the majority of PTEs occurred initially during adolescence and were associated with not living with both biological parents. This pattern may reflect lower parental supervision in the absence of both parents in the home, a possibility consistent with prior studies indicating that family structure is an important determinant of child–adolescent trauma exposure,[31,32] or greater risk of maltreatment or exposure to other PTEs because of the presence of step-parents or other nonrelated adults in the home. The finding that females are exposed to more network/witnessing events than are males is consistent with previous evidence of greater female than male emotional involvement in the stressors that occur in their social networks.[33]

Our finding that child–adolescent behavior disorders are associated with elevated risk of most PTEs is consistent with findings from previous studies.[10,11] Behavior disorders are associated with impulsivity, risk-taking behaviors,[34,35]

TABLE 4 Associations (Odds Ratios [OR]) of Sociodemographics, Prior Mental Disorders, and Potentially Traumatic Experience (PTE) Types With *DSM-IV*/Composite International Diagnostic Interview (CIDI) Posttraumatic Stress Disorder (PTSD) Onset in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (N = 6,483)

	Total Sample (n = 6,483)				Trauma-Exposed Adolescents (n = 3,898)							
	Model 1: Sociodemographics		Model 2: Sociodemographics, Prior Mental Disorders		Model 3: Sociodemographics		Model 4: Sociodemographics, Worst Event		Model 5: Sociodemographics, Worst Event, Prior PTEs		Model 6: Sociodemographics, Worst Event, Prior PTEs, Prior Mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Sex												
Females	3.5*	(2.2–5.6)	3.6*	(2.2–5.8)	3.6*	(2.3–5.5)	2.8*	(1.6–4.7)	2.8*	(1.7–4.6)	2.5*	(1.4–4.3)
Males	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1	27.7*		26.5*		34.1*		14.3*		16.0*		10.7*	
Race/ethnicity												
Hispanic	0.6	(0.4–1.1)	0.7	(0.4–1.1)	0.5*	(0.3–0.9)	0.6	(0.3–1.1)	0.6	(0.3–1.2)	0.7	(0.4–1.2)
Non-Hispanic black	0.7	(0.3–1.5)	0.8	(0.4–1.6)	0.7	(0.4–1.4)	0.7	(0.3–1.5)	0.7	(0.3–1.6)	0.7	(0.3–1.4)
Other	1.0	(0.5–2.2)	0.8	(0.4–2.0)	0.9	(0.5–1.9)	0.9	(0.3–2.6)	0.9	(0.3–2.5)	0.8	(0.3–2.3)
Non-Hispanic white	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_3	3.8		2.5		5.1		2.9		2.5		2.5	
Urbanicity												
Metro/other urban	1.1	(0.7–1.7)	1.1	(0.7–1.7)	1.3	(0.9–1.8)	1.1	(0.7–1.7)	1.2	(0.8–1.8)	1.4	(0.9–2.0)
Rural	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1	0.2		0.2		1.7		0.3		1.1		2.5	
Biological parents in home												
≤1	2.0*	(1.3–3.0)	1.8*	(1.2–2.6)	1.8*	(1.2–2.7)	1.8*	(1.1–2.8)	1.5	(1.0–2.4)	1.5	(0.9–2.3)
2	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1	10.9*		9.2*		8.2*		6.5*		3.3		2.9	
Prior mental disorders[b]												
Fear			1.5*	(1.1–1.9)							1.7*	(1.4–2.2)
Distress			1.8*	(1.4–2.4)							1.8*	(1.3–2.4)
Behavior			1.1	(0.8–1.5)							0.8	(0.5–1.2)
Substance			1.5*	(1.0–2.2)							1.7	(0.9–3.2)
Bipolar			2.0*	(1.1–3.5)							1.6	(0.7–3.8)
χ^2_5			152.3*								51.8*	
Worst event[c]												
χ^2_{19}							499.0*		557.1*		602.1*	
Prior PTEs[d]												
χ^2_{19}									279.7*		93.9*	

Note: Metro = metropolitan area.

[a] *Models were estimated using discrete-time survival analysis with person-years as the unit of analysis.*

[b] *Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before occurrence of respondents' self-reported worst PTE.*

[c] *Nineteen dummy variables included to indicate the respondents' self-reported worst event and any other PTEs occurring in the same year as the worst.*

[d] *Variables represent counts of PTEs occurring before respondents' self-reported worst PTE.*

* *Significant at the .05 level, 2-sided test.*

and involvement with deviant peer groups[34] that may select youths into environments in which violence is common. Behavior disorders are also associated with heightened risk for exposure to maltreatment by caregivers.[36,37] Fear disorders are associated primarily with network/witnessing events, whereas distress disorders are associated with violence that commonly occurs in the context of intimate relationships. One possible explanation of the former finding is that adolescents with fear disorders are more likely to attend to PTEs occurring in their social network than are other adolescents[38] and are therefore more likely to recall or report them. The latter finding is consistent with previous research identifying depression as a risk factor for intimate partner violence victimization.[39] Substance disorders are associated with elevated risk of automobile accidents, presumably reflecting effects of intoxication on accident-proneness.

The comparatively high conditional probability of adolescent PTSD associated with PTEs involving interpersonal violence is consistent with adult studies[1,18,40] and might reflect the fact that these events are associated with high perceived life threat, which has been consistently identified as one of the strongest predictors of PTSD.[41,42] We find a notable gender difference in lifetime PTSD onset, with females more likely to develop the disorder than males even after controlling for type of PTE exposure. This elevated PTSD risk among females compared to males is also consistent with adult studies,[1,18,43] although previous adolescent studies have reported mixed findings in this regard.[6,8,9] Factors explaining this differential vulnerability are unknown, but may include differences in limbic and physiological stress response system reactivity to stress[44,45] or fear conditioning.[46]

Our finding that prior PTE exposure is associated with heightened vulnerability to adolescent PTSD is also consistent with adult studies.[47-49] Previous research suggests that this might be due to earlier PTEs causing heightened emotional and physiological reactivity to subsequent stressors.[49,50] Although we have no way to evaluate this possibility directly, it is noteworthy that the association of prior PTEs with vulnerability to PTSD attenuated considerably when controls were introduced for prior *DSM-IV* disorders. This pattern is similar to recent findings suggesting that prior exposure to PTEs is associated with heightened PTSD risk only among those who developed a mental disorder after the previous PTEs.[51] Finally, our finding that pre-existing fear and distress disorders were associated with elevated vulnerability to PTSD is consistent with adult studies.[11,52]

Some of our findings are unique to adolescents. Included here is the developmental variation in PTSD risk between childhood and adolescence, which we found to be due to age-related differences in PTE exposure, and our failure to find racial/ethnic differences in PTSD risk, which contrasts with findings of elevated PTSD risk among adults of non-Hispanic black ethnicity.[41] The strong association between not living with both biological parents and the vulnerability to PTSD among adolescents exposed to a PTE has not, to our knowledge, been examined in studies of adults, and might be unique to children–adolescents. This association was predominantly explained by differential exposure to prior PTEs, suggesting that not living with both biological parents increases the risk of cumulative PTE exposure.

Our finding that approximately two-thirds of child/adolescent PTSD cases recovered is consistent with prior findings,[1,18,19] although a number of predictors of recovery among adults, including gender, history of psychopathology, and race/ethnicity,[53,54] were not significant among adolescents. Instead, low family income, U.S. nativity, exposure to temporally secondary PTEs, and bipolar disorder are significantly associated with low PTSD recovery in adolescents. Only 1 of these factors, exposure to secondary PTEs, has, to our knowledge, been examined in a previous study of adolescents, where the pattern was consistent with our findings.[19] Nativity, although not examined in previous studies of youth PTSD, is known to be a significant correlate of common mental disorders because of the low prevalence among first-generation U.S. immigrants compared to those born in the U.S.[55] Psychopathology risk among immigrants increases with greater time in the U.S. within a single generation and across successive generations,[56] potentially because of increasing exposure to acculturative stressors or to environmental factors underlying higher U.S. prevalence of mental disorders. Factors explaining high PTSD recovery among immigrant youth specifically, however, remain to be identified in future research.

A limitation of this study is that PTSD was assessed with a fully structured lay interview with a single screening question, rather than with a more sensitive semistructured clinical interview. Our clinical reappraisal study suggests that

TABLE 5 Associations (Odds Ratios [OR]) of Sociodemographics, Potentially Traumatic Experience (PTE) Types, and Prior Mental Disorders With *DSM-IV*/Composite International Diagnostic Interview (CIDI) Posttraumatic Stress Disorder (PTSD) Recovery in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (n = 259)

	Model 1: Sociodemographics		Model 2: Sociodemographics, Worst Event type		Model 3: Sociodemographics, Worst Event Type, Prior PTEs		Model 4: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs		Model 5: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs, Prior Mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Age of PTSD onset										
Early childhood (<5 y)	3.1*	(1.0–9.5)	2.9	(0.8–10.7)	2.2	(0.7–7.1)	1.8	(0.5–6.3)	2.6	(0.5–13.1)
Middle/late childhood (5–10 y)	2.3	(0.9–5.6)	2.2	(0.9–5.6)	1.8	(0.7–4.6)	1.6	(0.6–4.2)	2.9	(0.9–9.4)
Early adolescence (11–13 y)	2.2	(0.9–5.7)	2.4	(0.9–6.0)	1.9	(0.7–5.1)	1.9	(0.7–5.3)	2.4	(0.8–7.2)
Adolescence (14+ y)	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_3		5.5		4.8		2.5		1.8		2.5
Time since PTSD onset (mo)										
1–3	2.1	(0.7–6.4)	2.1	(0.7–6.1)	2.2	(0.7–6.5)	1.9	(0.6–5.6)	2.2	(0.8–6.1)
4–6	0.3	(0.1–1.3)	0.3	(0.1–1.2)	0.3	(0.1–1.3)	0.3	(0.1–1.2)	0.3	(0.1–1.2)
7–12	1.2	(0.3–5.0)	1.2	(0.3–4.9)	1.2	(0.3–5.1)	1.1	(0.3–4.2)	1.2	(0.3–4.6)
13–24	4.1*	(1.4–12.1)	4.1*	(1.4–12.0)	4.1*	(1.4–11.6)	3.7*	(1.4–10.1)	4.1*	(1.7–10.1)
25+	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_4		18.7*		18.7*		18.4*		18.2*		18.4*
Poverty[b]										
High poverty	0.3*	(0.1–0.7)	0.3*	(0.1–0.6)	0.3*	(0.1–0.7)	0.3*	(0.1–0.7)	0.3*	(0.1–0.7)
Low poverty	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1		8.6*		9.0*		7.5*		8.1*		7.5*
Nativity										
Foreign-born	11.9*	(2.5–56.0)	11.1*	(2.4–51.5)	10.5*	(2.2–50.5)	10.9*	(1.6–74.1)	13.0*	(2.5–69.0)
U.S.-born	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]	1.0	[Reference]
χ^2_1		9.9*		9.4*		8.6*		6.0*		8.6*
Prior mental disorders[c]										
Fear									0.7	(0.4–1.2)
Distress									1.6	(1.0–2.7)
Behavior									1.5	(0.9–2.5)
Substance									2.5	(0.6–10.3)
Bipolar disorder									0.0*	(0.0–0.3)
χ^2_5										17.0*

TABLE 5 Continued

	Model 1: Sociodemographics		Model 2: Sociodemographics, Worst Event type		Model 3: Sociodemographics, Worst Event Type, Prior PTEs		Model 4: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs		Model 5: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs, Prior Mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Worst event category[d]										
χ^2_4			1.0		1.1		1.0		0.9	
Prior PTEs[e]										
χ^2_4					3.8		3.6		4.7	
Subsequent PTEs[f]										
χ^2_4							5.6		12.6*	

Note: PTSD = posttraumatic stress disorder.

[a]*Models were estimated using discrete-time survival analysis with person-years as the unit of analysis. Only respondents with lifetime PTSD were included in the analysis.*

[b]*Poverty was defined using household family income for the past-year relative to the federally defined poverty line based on family size. Poverty was defined as less than 3 times the poverty line and low poverty (reference group) as 3 or more times the poverty level.*

[c]*Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before occurrence of respondents' self-reported worst PTE.*

[d]*Variables represent worst event type: interpersonal violence, accidents, network/witnessing, and other PTEs.*

[e]*Variables represent counts of PTEs occurring before respondents' self-reported worst event within each of the 4 PTE categories: interpersonal violence, accidents, network/witnessing, and other PTEs.*

[f]*Variables represent counts of PTEs occurring after the respondents' self-reported worst event within each of the 4 PTE categories: interpersonal violence, accidents, network/witnessing, and other PTEs.*

**Significant at the .05 level, 2-sided test.*

this led to some underestimation of PTSD. As a result, the prevalence of PTSD in adolescents may, in reality, be more similar to adult prevalence. Another limitation is that PTSD was assessed only in relation to each respondent's self-reported worst PTE. This is likely to have led to only a small underestimation of lifetime PTSD prevalence, as previous research has shown that persons who fail to meet criteria for PTSD for symptoms associated with a "worst" PTE only rarely meet these criteria for some other PTE.[1] However, the focus on worst events could have inflated estimates of conditional probability of PTSD among individuals exposed to particular PTEs, as that risk was estimated for a nonrepresentative sample of PTEs, although evidence suggests that bias associated with assessing PTSD in relation to worst events is minimal.[57] Reporting biases are also possible with regard to worst events, particularly for situations involving multiple PTEs occurring simultaneously (e.g., a car accident involving the death of a loved one). A preferable approach in this regard would have been to assess PTSD in relation to a randomly selected PTE to obtain unbiased estimates of conditional risk. Such an approach was used recently in the World Health Organization (WHO) World Mental Health Surveys[58,59] and before that in an epidemiological study in Detroit,[48] but we are unaware of any comparable study among youths. This is an important goal for future epidemiological studies of child and adolescent PTSD.

Another limitation is that adolescents who were homeless, non–English speaking, or living in the juvenile justice system or residential treatment facilities were not included in the NCS-A. In addition to recall failure and hesitance to report PTEs, this limitation suggests that our prevalence estimates of PTE exposure and PTSD are conservative, as PTE exposure is more common in the segments of the adolescent population excluded from the sampling frame. An additional potential assessment bias is that mood-congruent recall may have led distressed respondents to report more PTEs, although prospective evidence suggests that PTE reports are largely free of overreporting bias.[60] One pattern in the NCS-A that is consistent with the possibility of differential recall bias is that a significantly higher proportion of females than males reported unexpected death of a loved one. As noted earlier, however, this well-known gender difference could be due to a tendency for females to have more extensive social networks than males.[33] Another limitation is that a number of important factors that might predict susceptibility to PTSD were not assessed here, including temperament, parenting, and social support. In addition, because PTSD symptoms often wax and wane over time, our definition of PTSD recovery may have included adolescents still experiencing PTSD symptoms. Finally, our models examining PTSD recovery had low statistical power due to a small sample size. Cohort studies of youths with PTSD are needed to address that problem.

Despite these limitations, the results reported here document clearly that adolescence is a period of high risk of PTE exposure, as well as high vulnerability to PTSD among those exposed to PTEs. We have the opportunity to reduce the population burden of PTSD both by delivering timely preventive interventions in the wake of PTEs to those most at risk for PTSD, and by providing treatment to those with PTSD who are least likely to recover spontaneously. Effective interventions have been developed to prevent the onset of PTSD in PTE-exposed adults[61] and, more recently, in PTE-exposed children and adolescents.[62] Our findings suggest that these interventions would most usefully be targeted at youths who are victims of interpersonal violence and those with pre-existing fear and distress disorders. Effective interventions have also been developed to treat children and adolescents with PTSD.[63] Our findings suggest that these interventions should specifically target adolescents living in poverty and those with comorbid bipolar disorder. Our results also suggest that these clinical interventions should be augmented with efforts to reduce onset of temporally secondary PTEs, based on the observation that these later PTEs are associated with significantly reduced odds of recovery. &

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A complete list of NCS-A publications can be found at http://www.hcp.med.harvard.edu/ncs. A public-use version of the NCS-A data set is available for secondary analysis. Instructions for accessing the data set can be found at http://www.hcp.med.harvard.edu/ncs/index.php. As noted above, the NCS-A is carried out in conjunction with the World Health Organization World Mental Health Survey Initiative. A complete list of World Mental Health Survey Initiative publications can be found at http://www.hcp.med.harvard.edu/wmh/.

The views and opinions expressed in this article are those of the authors and should not be construed to represent the views of any of the sponsoring organizations, agencies, or the US government.

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TABLE S1 Distribution of Sociodemographic Factors in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A) (N = 6,483)

Demographic	Nonweighted n	Nonweighted %	Weighted %	Weighted SE
Sex				
Male	3,150	48.6	51.2	1.1
Female	3,333	51.4	48.8	1.1
Age (y)				
13	1,114	17.2	15.3	1.6
14	1,497	23.1	20.6	1.2
15	1,240	19.1	21.2	1.0
16	1,288	19.9	20.7	1.3
17+	1,344	20.7	22.2	1.2
Race/ethnicity				
Hispanic	758	11.7	14.4	1.3
Non-Hispanic black	1,097	16.9	15.1	1.0
Other	371	5.7	5.0	0.5
Non-Hispanic white	4,257	65.7	65.6	1.8
Parent education				
< college	2,598	40.1	41.7	1.5
≥ college	3,885	59.9	58.3	1.5
Poverty				
≤ 3 times the poverty	2,143	33.1	33.8	1.5
>3 times the poverty line for family size	4,340	66.9	66.2	1.5
Urbanicity				
Metro/other urban	4,887	75.4	85.2	2.4
Rural	1,596	24.6	14.8	2.4
Biological parents in home				
≤1 (birth parents living with)	2,812	43.4	45.3	1.5
2 (birth parents living with)	3,671	56.6	54.7	1.5
Nativity				
U.S.-born	6,286	97.0	93.7	0.7
Foreign-born	197	3.0	6.3	0.7

Note: Metro = metropolitan area.

TABLE S2 Number of Respondents With Exposure to Potentially Traumatic Experiences (PTEs) and With *DSM-IV*/CIDI Posttraumatic Stress Disorder (PTSD) in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A) (N = 6,483)

	Lifetime PTE Exposure[a] n	Event Chosen as Worst Among Those Exposed[b] n	Lifetime PTSD Among All Those Exposed to PTE[c] n	Lifetime PTSD Among All Who Chose the PTE as Their Worst[d] n
Any PTE	3,898	3,898	289	289
PTE type				
Interpersonal violence				
Kidnapped	39	8	12	2
Physical abuse by caregiver	110	42	30	12
Physical assault by romantic partner	45	9	17	3
Other physical assault	286	107	28	5
Mugged/threatened with weapon	425	138	41	5
Rape	163	74	63	36
Sexual assault	223	90	62	21
Stalked	288	97	51	8
Witnessed domestic violence	446	186	65	13
Accidents				
Automobile accident	459	225	48	10
Other life-threatening accident	496	204	43	8
Man-made/natural disaster	865	415	54	2
Life-threatening illness	405	193	28	1
Accidentally harmed others	63	15	5	0
Network/witnessing				
Unexpected death of loved one	1872	1,197	172	96
PTE to loved one	590	239	77	5
Witnessed death/injury	716	289	74	18
Other				
Other event	444	210	63	19
Private event	353	160	74	25

Note: [a]*Estimates reported are the number of the 6,483 youths in the total sample who ever experienced each of the PTEs.*
[b]*Respondents with a lifetime PTE were asked to select the worst PTE (i.e., the PTE associated with the worst symptoms). PTSD was queried in relation to this worst PTE. Respondents with only 1 PTE were asked about that PTE; respondents with multiple PTEs who were unable to identify a worst event were assigned one using a random number generator.*
[c]*Number of respondents that meet criteria for lifetime PTSD among those exposed to each PTE.*
[d]*Number of respondents that meet criteria for lifetime PTSD among those who selected a PTE as their worst.*

TABLE S3 Associations (Odds Ratios [OR]) of Sociodemographics and Prior Mental Disorders With Exposure to Interpersonal Violence Potentially Traumatic Experiences (PTEs) in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (n = 6,483)

	Kidnapped		Physical Abuse by Caregiver		Physical Assault by Romantic Partner		Other Physical Assault/Mugged/ Threatened with Weapon[b]		Rape/Sexual Assault[b]		Stalked		Witnessed Domestic Violence	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Person-year														
5–10 y	0.2*	(0.1–0.5)	0.8	(0.4–1.6)			4.5*	(2.1–9.7)	2.8*	(1.6–4.9)			1.2	(0.8–1.8)
11–13 y	0.0*	(0.0–0.2)	0.8	(0.4–1.8)			14.8*	(8.1–27.0)	3.9*	(2.2–6.9)	18.1*	(8.0–41.1)	0.8	(0.5–1.2)
14–15 y	0.0*	(0.0–0.1)	0.1*	(0.0–0.4)	7.5*	(1.9–30.0)	21.3*	(11.1–41.1)	4.6*	(2.4–9.0)	45.3*	(20.3–100.9)	0.6*	(0.4–1.0)
16+ y	0.1*	(0.0–0.4)	0.0*	(0.0–0.0)	4.0	(0.9–17.2)	17.6*	(8.3–37.7)	2.8*	(1.1–7.1)	34.4*	(13.0–90.6)	0.0*	(0.0–0.2)
1–4 y	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_4 (*p* value)	47.3*		7765.3*		$\chi^2_2 = 8.2$*		162.4*		24.9*		$\chi^2_3 = 90.8$*		30.5*	
Sex														
Female	1.1	(0.4–2.9)	1.0	(0.6–1.6)	7.0*	(2.3–21.5)	0.3*	(0.2–0.4)	13.6*	(8.1–22.7)	4.5*	(2.5–8.2)	1.2	(0.9–1.7)
Male	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.1		0.0		11.7*		50.1*		97.7*		24.3*		1.4	
Race/ethnicity														
Hispanic	0.6	(0.1–2.7)	0.7	(0.3–1.8)	6.1*	(2.0–18.9)	1.7*	(1.1–2.6)	0.9	(0.5–1.6)	2.3*	(1.2–4.4)	0.8	(0.5–1.5)
Non-Hispanic black	0.2*	(0.1–0.8)	0.3*	(0.1–0.8)	0.3	(0.1–1.6)	0.9	(0.6–1.2)	0.5*	(0.3–0.9)	1.9*	(1.1–3.3)	0.6*	(0.4–0.9)
Other	0.7	(0.2–2.4)	1.0	(0.4–2.6)	0.8	(0.2–3.2)	1.8*	(1.1–3.0)	1.4	(0.6–3.0)	1.5	(0.6–3.5)	1.8	(0.9–3.4)
Non-Hispanic white	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_3	5.6		5.4		13.5*		21.4*		6.0		7.6		13.3*	
Parent education[c]														
No college	2.0	(0.7–6.1)	1.2	(0.7–2.1)	0.7	(0.3–1.6)	1.1	(0.9–1.5)	1.2	(0.9–1.7)	0.8	(0.6–1.2)	1.4*	(1.1–1.7)
Some college	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	1.5		0.3		0.8		0.8		1.7		0.9		6.9*	
Poverty[d]														
High poverty	0.6	(0.2–2.1)	0.8	(0.4–1.4)	0.4	(0.1–1.5)	1.3*	(1.0–1.7)	1.0	(0.7–1.4)	1.2	(0.8–1.7)	1.7*	(1.2–2.5)
Low poverty	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.7		0.8		1.8		4.0*		0.0		0.9		7.8*	
Urbanicity														
Metro/other urban	0.8	(0.3–2.4)	1.7*	(1.1–2.7)	1.1	(0.3–3.5)	1.1	(0.7–1.6)	1.1	(0.7–1.7)	1.0	(0.6–1.5)	1.4	(1.0–1.9)
Rural	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.1		5.3*		0.0		0.2		0.1		0.0		3.3	
Biological parents in home														
≤1	24.2*	(8.9–65.8)	8.1*	(3.4–19.8)	0.5	(0.2–1.6)	1.7*	(1.3–2.4)	3.1*	(2.0–4.7)	0.8	(0.5–1.1)	4.5*	(2.4–8.5)
2	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	39.0*		21.5*		1.2		12.4*		26.5*		1.9		22.9*	

TABLE S3 Continued

	Kidnapped		Physical Abuse by Caregiver		Physical Assault by Romantic Partner		Other Physical Assault/Mugged/ Threatened with Weapon[b]		Rape/Sexual Assault[b]		Stalked		Witnessed Domestic Violence	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Nativity														
Foreign-born	3.2	(0.6–16.2)	2.0	(0.5–7.6)	0.1*	(0.0–0.6)	0.8	(0.4–1.6)	0.7	(0.2–3.1)	0.6	(0.2–1.6)	0.8	(0.5–1.4)
U.S.-born	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	2.0		1.1		7.2*		0.4		0.2		1.1		0.6	
Prior mental disorders[e]														
Fear	0.9	(0.4–2.2)	1.2	(0.8–1.8)	1.4	(1.0–2.1)	1.3*	(1.1–1.7)	1.1	(0.9–1.4)	1.2	(1.0–1.5)	1.3*	(1.0–1.6)
Distress	1.5	(0.7–3.1)	1.1	(0.6–1.8)	2.1*	(1.1–3.7)	1.2	(0.9–1.6)	1.5*	(1.1–1.9)	1.4*	(1.1–1.8)	1.2	(0.8–1.8)
Behavior	0.8	(0.5–1.3)	1.6*	(1.1–2.4)	3.4*	(1.9–5.9)	1.5*	(1.3–1.7)	1.8*	(1.4–2.3)	2.3*	(1.8–3.0)	1.1	(0.9–1.4)
Substance	3.5*	(1.0–11.9)	0.5	(0.1–2.9)	2.5*	(1.2–5.0)	2.0*	(1.4–2.8)	0.8	(0.4–1.5)	1.9*	(1.4–2.7)	1.5	(0.5–4.0)
Bipolar	3.4*	(1.0–11.1)	0.7	(0.1–4.7)	0.7	(0.2–3.2)	1.2	(0.8–1.8)	2.1*	(1.1–4.0)	0.9	(0.5–1.5)	1.7	(0.7–3.9)
χ^2_5	7.3		13.8*		83.4*		145.2*		81.3*		102.6*		18.3*	

Note: Metro = metropolitan area.

[a]*Models were estimated using discrete-time survival analysis with person-years as the unit of analysis.*

[b]*Based on preliminary analysis showing similar patterns of association of predictors with specific PTEs, PTEs were combined for analysis. To do so, we created a consolidated data file that stacked each of the separate PTE-specific person-year data arrays and included dummy variables to distinguish among the files, thereby forcing the estimated slopes of PTE exposure on predictors to be constant across the combined PTEs in each file. Results are based on these consolidated data arrays.*

[c]*Parent education was dichotomized based on highest education of either parent into high school diploma or less versus enrollment or completion of at least some post–high school education (reference group).*

[d]*Poverty was defined using household family income for the past-year relative to the federally defined poverty line based on family size. Poverty was defined as less than 3 times the poverty line and low poverty (reference group) as 3 or more times the poverty level.*

[e]*Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before first occurrence of each PTE.*

** Significant at the .05 level, 2-sided test.*

TABLE S4 Associations (Odds Ratios [OR]) of Sociodemographics and Prior Mental Disorders With Exposure to Other Potentially Traumatic Experiences (PTEs) in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (N = 6,483)

	Auto Accident/ Accidentally Harmed Others[b]		Other Life-Threatening Accident/Life-Threatening Illness[b]		Man-made/ Natural Disaster		Unexpected Death of a Loved One		PTE to Loved One		Witnessed Injury or Death		Other/Private Event	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Person-year														
5–10 y	1.0	(0.7–1.6)	0.6*	(0.4–0.8)	2.0*	(1.5–2.8)	3.4*	(2.6–4.4)	0.8	(0.5–1.3)	4.1*	(1.9–8.7)	2.3*	(1.4–3.7)
11–13 y	1.7*	(1.1–2.7)	0.8	(0.5–1.1)	2.0*	(1.3–3.1)	6.6*	(5.2–8.3)	2.7*	(1.7–4.0)	14.1*	(6.7–29.5)	5.6*	(3.5–8.9)
14–15 y	3.0*	(1.9–4.8)	0.8	(0.6–1.1)	2.4*	(1.4–4.1)	12.1*	(9.6–15.2)	4.9*	(2.9–8.4)	16.3*	(8.0–33.1)	6.8*	(4.1–11.2)
16+ y	3.8*	(2.3–6.2)	0.8	(0.5–1.3)	1.6	(0.7–3.4)	14.9*	(11.6–19.1)	3.8*	(1.8–8.1)	21.3*	(8.2–55.3)	3.5*	(1.9–6.7)
1–4 y	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_4	46.9*		13.6*		20.9*		704.4*		127.4*		153.1*		136.6*	
Sex														
Females	0.6*	(0.5–0.8)	0.6*	(0.5–0.7)	0.7*	(0.6–0.9)	1.4*	(1.2–1.5)	1.7*	(1.3–2.2)	0.6*	(0.5–0.7)	1.3	(1.0–1.8)
Males	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	20.8*		23.5*		8.2*		24.1*		12.4*		41.1*		3.8	
Race/ethnicity														
Hispanic	1.4*	(1.0–1.9)	1.0	(0.7–1.4)	1.1	(0.8–1.6)	1.2	(0.9–1.5)	1.2	(0.9–1.6)	1.6*	(1.2–2.1)	1.1	(0.8–1.7)
Non-Hispanic black	1.4*	(1.0–1.8)	0.8	(0.6–1.1)	1.3	(0.9–1.8)	1.4*	(1.2–1.7)	1.1	(0.8–1.5)	2.1*	(1.6–2.8)	1.7*	(1.2–2.3)
Other	2.0	(0.8–4.6)	1.5	(0.9–2.5)	1.4	(0.9–2.2)	1.0	(0.7–1.3)	0.8	(0.4–1.6)	1.7*	(1.1–2.7)	1.3	(0.9–2.0)
Non-Hispanic white	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_3	6.0		4.0		3.2		19.5*		2.2		50.7*		10.4*	
Parent education[c]														
No college	0.9	(0.7–1.2)	1.1	(0.9–1.3)	0.9	(0.8–1.1)	1.1	(0.9–1.2)	1.0	(0.8–1.2)	1.1	(0.9–1.4)	0.9	(0.7–1.1)
Some college	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.9 (.35)		0.7 (.39)		0.3 (.55)		1.0 (.32)		0.0 (.96)		1.1 (.30)		1.7 (.20)	
Poverty[d]														
High poverty	1.2	(0.7–2.1)	1.2	(0.9–1.6)	1.0	(0.8–1.2)	1.0	(0.9–1.1)	1.2	(0.9–1.6)	1.1	(0.8–1.5)	1.1	(0.8–1.4)
Low poverty	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.3		2.1		0.1		0.0		2.3		0.6		0.2	
Urbanicity														
Metro/other urban	0.7*	(0.5–0.9)	1.2	(1.0–1.5)	1.2	(0.9–1.5)	1.0	(0.9–1.1)	1.4*	(1.0–1.9)	1.4	(1.0–2.0)	1.5	(1.0–2.2)
Rural	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	8.5 (.004)		3.7 (.053)		1.8 (.18)		0.0 (.99)		5.2 (.023)		3.8 (.052)		3.5 (.06)	
Biological parents in home														
≤1	1.5	(0.9–2.3)	1.3	(1.0–1.6)	1.3	(1.0–1.7)	1.3*	(1.1–1.6)	1.3*	(1.0–1.7)	1.3	(0.9–1.7)	1.2*	(1.0–1.5)

TABLE S4 Continued

	Auto Accident/ Accidentally Harmed Others[b]		Other Life-Threatening Accident/Life-Threatening Illness[b]		Man-made/ Natural Disaster		Unexpected Death of a Loved One		PTE to Loved One		Witnessed Injury or Death		Other/Private Event	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
2	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	2.3		3.7		2.9		9.4*		4.4*		2.4		4.1*	
Nativity														
Foreign-born	1.4	(0.8–2.4)	0.4*	(0.2–0.8)	1.0	(0.6–1.6)	0.7	(0.4–1.1)	0.5	(0.2–1.3)	0.9	(0.4–1.9)	2.0*	(1.3–3.2)
U.S.-born	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	1.1		6.1*		0.0		2.1		2.0		0.0		10.4*	
Prior mental disorders[e]														
Fear	1.2	(1.0–1.6)	1.2	(1.0–1.4)	1.3*	(1.1–1.6)	1.3*	(1.1–1.5)	1.2*	(1.0–1.4)	1.3*	(1.1–1.6)	1.2*	(1.1–1.4)
Distress	1.2	(0.9–1.6)	1.6*	(1.3–2.1)	0.8	(0.6–1.0)	1.0	(0.8–1.2)	1.4*	(1.1–1.8)	1.4*	(1.1–1.7)	1.3*	(1.0–1.6)
Behavior	1.1	(0.9–1.3	1.3*	(1.1–1.5)	1.1	(0.8–1.5)	1.2*	(1.1–1.4)	1.4*	(1.2–1.8)	1.1	(0.9–1.4)	1.5*	(1.3–1.9)
Substance	1.7*	(1.2–2.4)	0.7	(0.4–1.2)	1.2	(0.5–2.7)	1.1	(0.9–1.3)	1.2	(0.9–1.7)	1.7*	(1.2–2.5)	2.2*	(1.6–3.2)
Bipolar	0.7	(0.4–1.5)	1.2	(0.6–2.6)	1.5	(0.6–4.1)	1.0	(0.7–1.4)	1.1	(0.7–1.9)	0.8	(0.5–1.3)	1.5	(1.0–2.3)
χ^2_5	26.3*		61.1*		21.8*		33.5*		59.9*		35.8*		167.1*	

Note: Metro = metropolitan area.

[a]*Models were estimated using discrete-time survival analysis with person-years as the unit of analysis.*

[b]*Based on preliminary analysis showing similar patterns of association of predictors with specific experiences, PTEs were combined for analysis. To do so, we created a consolidated data file that stacked each of the separate PTE-specific person-year data arrays and included dummy variables to distinguish among the files, thereby forcing the estimated slopes of PTE exposure on predictors to be constant across the combined PTEs in each file. Results are based on these consolidated data arrays.*

[c]*Parent education was dichotomized based on highest education of either parent into high school diploma or less versus enrollment or completion of at least some post–high school education (reference group).*

[d]*Poverty was defined using household family income for the past-year relative to the federally defined poverty line based on family size. Poverty was defined as less than 3 times the poverty line and low poverty (reference group) as 3 or more times the poverty level.*

[e]*Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before first occurrence of each PTE.*

** Significant at the .05 level, 2-sided test.*

TABLE S5 Associations (Odds Ratios [OR]) of Sociodemographics, Prior Mental Disorders, and Potentially Traumatic Experience (PTE) Types With *DSM-IV*/CIDI Posttraumatic Stress Disorder (PTSD) Onset in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (N = 6,483)

	Total Sample (N = 6,483)				Trauma-Exposed Adolescents (N = 3,898)							
	Model 1: Sociodemographics		Model 2: Sociodemographics, Prior mental disorders		Model 3: Sociodemographics		Model 4: Sociodemographics, Worst Event		Model 5: Sociodemographics, Worst Event, Prior Trauma		Model 6: Sociodemographics, Worst event, Prior Trauma, Prior mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Person-year												
5–10 y	0.6	(0.3–1.1)	0.4*	(0.2–0.9)	0.6	(0.3–1.2)	1.1	(0.5–2.5)	1.5	(0.7–2.9)	1.1	(0.5–2.0)
11–13 y	1.4	(0.7–2.6)	0.8	(0.4–1.5)	1.1	(0.6–2.1)	1.3	(0.6–2.7)	1.7	(0.9–3.0)	1.0	(0.6–1.8)
14–15 y	1.6	(0.7–3.5)	0.7	(0.3–1.6)	1.4	(0.7–3.2)	1.1	(0.4–2.8)	1.3	(0.6–3.0)	0.7	(0.3–1.5)
16+ y	1.6	(0.7–4.0)	0.6	(0.3–1.4)	2.2	(0.9–5.6)	1.2	(0.4–3.2)	1.4	(0.7–2.8)	0.6	(0.3–1.1)
1–4 y	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_4	20.7*		8.3		24.6*		1.2		3.6		5.9	
Sex												
Female	3.5*	(2.2–5.6)	3.6*	(2.2–5.8)	3.6*	(2.3–5.5)	2.8*	(1.6–4.7)	2.8*	(1.7–4.6)	2.5*	(1.4–4.3)
Male	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	27.7*		26.5*		34.1*		14.3*		16.0*		10.7*	
Race/ethnicity												
Hispanic	0.6	(0.4–1.1)	0.7	(0.4–1.1)	0.5*	(0.3–0.9)	0.6	(0.3–1.1)	0.6	(0.3–1.2)	0.7	(0.4–1.2)
Non-Hispanic black	0.7	(0.3–1.5)	0.8	(0.4–1.6)	0.7	(0.4–1.4)	0.7	(0.3–1.5)	0.7	(0.3–1.6)	0.7	(0.3–1.4)
Other	1.0	(0.5–2.2)	0.8	(0.4–2.0)	0.9	(0.5–1.9)	0.9	(0.3–2.6)	0.9	(0.3–2.5)	0.8	(0.3–2.3)
Non-Hispanic white	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_3	3.8		2.5		5.1		2.9		2.5		2.5	
Parent education[b]												
No college	1.0	(0.7–1.4)	1.0	(0.7–1.4)	0.9	(0.7–1.2)	0.9	(0.6–1.4)	1.0	(0.6–1.5)	1.0	(0.6–1.4)
Some college	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.0		0.0		0.4		0.1		0.0		0.0	
Poverty[c]												
High poverty	1.3	(0.8–2.0)	1.2	(0.8–1.9)	1.2	(0.8–1.8)	1.2	(0.7–2.0)	1.1	(0.6–1.9)	1.1	(0.6–1.9)
Low poverty	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	1.4		0.6		0.9		0.4		0.1		0.1	

TABLE S5 Continued

	Total Sample (N = 6,483)				Trauma-Exposed Adolescents (N = 3,898)							
	Model 1: Sociodemographics		Model 2: Sociodemographics, Prior mental disorders		Model 3: Sociodemographics		Model 4: Sociodemographics, Worst Event		Model 5: Sociodemographics, Worst Event, Prior Trauma		Model 6: Sociodemographics, Worst event, Prior Trauma, Prior mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Urbanicity												
Metro/other urban	1.1	(0.7–1.7)	1.1	(0.7–1.7)	1.3	(0.9–1.8)	1.1	(0.7–1.7)	1.2	(0.8–1.8)	1.4	(0.9–2.0)
Rural	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.2		0.2		1.7		0.3		1.1		2.5	
Biological parents in home												
≤1	2.0*	(1.3–3.0)	1.8*	(1.2–2.6)	1.8*	(1.2–2.7)	1.8*	(1.1–2.8)	1.5	(1.0–2.4)	1.5	(0.9–2.3)
2	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	10.9*		9.2*		8.2*		6.5*		3.3		2.9	
Nativity												
Foreign-born	0.4	(0.1–1.1)	0.5	(0.2–1.5)	0.6	(0.2–1.7)	0.4	(0.1–1.9)	0.4	(0.1–2.2)	0.4	(0.1–2.9)
U.S.-born	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	3.0		1.7		1.0		1.3		1.1		0.8	
Prior mental disorders[d]												
Fear			1.5*	(1.1–1.9)							1.7*	(1.4–2.2)
Distress			1.8*	(1.4–2.4)							1.8*	(1.3–2.4)
Behavior			1.1	(0.8–1.5)							0.8	(0.5–1.2)
Substance			1.5*	(1.0–2.2)							1.7	(0.9–3.2)
Bipolar			2.0*	(1.1–3.5)							1.6	(0.7–3.8)
χ^2_5			152.3*								51.8*	
Worst Event[e]												
Interpersonal violence												
Kidnapped							8.2*	(2.9–22.8)	5.0*	(1.0–23.9)	6.0*	(1.3–28.7)
Physical abuse by caregiver							10.5*	(1.2–88.6)	8.5*	(1.8–40.5)	9.6*	(1.7–55.0)
Physical assault by romantic partner							4.4	(0.7–26.7)	3.6	(0.6–23.3)	2.5	(0.6–10.2)
Other physical assault							0.4	(0.0–4.3)	0.3	(0.0–5.7)	0.3	(0.0–5.2)

TABLE S5 Continued

	Total Sample (N = 6,483)				Trauma-Exposed Adolescents (N = 3,898)							
	Model 1: Sociodemographics		Model 2: Sociodemographics, Prior mental disorders		Model 3: Sociodemographics		Model 4: Sociodemographics, Worst Event		Model 5: Sociodemographics, Worst Event, Prior Trauma		Model 6: Sociodemographics, Worst event, Prior Trauma, Prior mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Mugged/ threatened with weapon							3.9*	(1.5–10.4)	3.8*	(1.3–11.3)	3.7*	(1.2–11.3)
Rape							15.9*	(6.5–39.0)	16.3*	(5.6–47.5)	19.0*	(6.4–56.5)
Sexual assault							7.5*	(3.2–17.5)	8.2*	(3.6–18.5)	8.3*	(3.3–20.9)
Stalked							2.6	(0.9–7.4)	2.4	(0.7–8.2)	3.4*	(1.1–10.5)
Witnessed domestic violence							3.0	(0.7–13.2)	4.4*	(1.3–14.6)	4.6*	(1.3–15.6)
Accidents												
Automobile accident							6.4*	(3.2–12.9)	8.3*	(4.1–16.8)	9.4*	(5.1–17.5)
Other life-threatening accident							1.5	(0.4–6.0)	1.4	(0.3–6.8)	1.3	(0.2–7.5)
Man-made/ natural disaster							0.6	(0.2–2.3)	0.8	(0.2–2.9)	0.9	(0.2–3.5)
Life-threatening illness							0.4	(0.1–2.2)	0.5	(0.1–3.0)	0.6	(0.1–3.1)
Accidentally harmed others							0.9	(0.1–6.0)	0.3	(0.0–3.1)	0.3	(0.0–3.3)
Network/ witnessing												
Unexpected death of loved one							7.7*	(5.0–11.9)	9.6*	(6.1–15.3)	11.1*	(6.6–18.6)
PTE to loved one							1.7	(0.6–5.0)	1.6	(0.7–4.0)	1.2	(0.5–2.8)
Witnessed death/injury							4.0*	(1.8–9.0)	4.3*	(2.0–9.5)	3.9*	(1.7–8.8)

TABLE S5 Continued

	Total Sample (N = 6,483)				Trauma-Exposed Adolescents (N = 3,898)							
	Model 1: Sociodemographics		Model 2: Sociodemographics, Prior mental disorders		Model 3: Sociodemographics		Model 4: Sociodemographics, Worst Event		Model 5: Sociodemographics, Worst Event, Prior Trauma		Model 6: Sociodemographics, Worst event, Prior Trauma, Prior mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Other												
Other event							5.0*	(2.0–12.8)	4.7*	(1.6–13.7)	5.6*	(1.9–16.6)
Private event							5.9*	(2.2–15.8)	6.0*	(1.8–19.5)	5.2*	(1.5–18.1)
χ^2_{19}							499.0*		557.1*		602.1*	
Prior trauma[f]												
Interpersonal violence												
Kidnapped									2.8	(0.6–12.5)	2.4	(0.6–9.9)
Physical abuse by caregiver									2.7	(0.6–11.3)	2.9	(0.8–11.4)
Physical assault by romantic partner									3.7	(0.4–37.5)	4.7	(0.6–40.9)
Other physical assault									1.5	(0.6–3.6)	1.5	(0.6–3.6)
Mugged/ threatened with weapon									0.2	(0.0–1.4)	0.2	(0.0–1.4)
Rape									1.2	(0.2–7.7)	1.4	(0.2–9.2)
Sexual assault									1.4	(0.5–4.2)	1.1	(0.4–3.2)
Stalked									2.4	(0.6–10.2)	2.4	(0.5–12.8)
Witnessed domestic violence									1.7	(0.8–3.7)	1.6	(0.7–3.7)
Accidents												
Automobile accident									1.8	(0.7–4.4)	1.8	(0.7–4.7)
Other life-threatening accident									2.6*	(1.3–5.3)	2.8*	(1.5–5.3)
									1.1	(0.7–1.9)	1.0	(0.6–1.8)

TABLE S5 Continued

	Total Sample (N = 6,483)				Trauma-Exposed Adolescents (N = 3,898)							
	Model 1: Sociodemographics		Model 2: Sociodemographics, Prior mental disorders		Model 3: Sociodemographics		Model 4: Sociodemographics, Worst Event		Model 5: Sociodemographics, Worst Event, Prior Trauma		Model 6: Sociodemographics, Worst event, Prior Trauma, Prior mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Man-made/ natural disaster												
Life-threatening illness									0.9	(0.4–2.3)	0.8	(0.3–2.0)
Accidentally harmed others									0.4	(0.1–1.6)	0.5	(0.1–2.7)
Network/ witnessing												
Unexpected death of loved one									1.4	(0.7–2.7)	1.4	(0.7–2.9)
PTE to loved one									1.4	(0.5–3.6)	1.4	(0.5–3.5)
Witnessed death/injury									2.1	(0.7–6.5)	1.3	(0.4–3.8)
Other												
Other event									2.3*	(1.1–4.9)	2.4*	(1.1–5.2)
Private event									1.0	(0.4–2.8)	0.5	(0.1–1.8)
χ^2_{19}										279.7*		93.9*

Note: Metro = metropolitan area.

[a] *Models were estimated using discrete-time survival analysis with person-years as the unit of analysis.*

[b] *Parent education was dichotomized based on highest education of either parent into high school diploma or less versus enrollment or completion of at least some post–high school education (reference group).*

[c] *Poverty was defined using household family income for the past-year relative to the federally defined poverty line based on family size. Poverty was defined as less than 3 times the poverty line and low poverty (reference group) as 3 or more times the poverty level.*

[d] *Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before occurrence of respondents' self-reported worst event.*

[e] *Nineteen dummy variables included to indicate the respondents' self-reported worst PTE and any other PTEs occurring in the same year as the worst event.*

[f] *Variables represent counts of PTEs occurring before respondents' self-reported worst event.*

* *Significant at the .05 level, 2-sided test.*

TABLE S6 Associations (Odds Ratios [OR]) of Sociodemographics, Prior Mental Disorders, and Potentially Traumatic Experience (PTE) Types With *DSM-IV*/CIDI Posttraumatic Stress Disorder (PTSD) Recovery in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A)[a] (N = 259)

	Model 1: Sociodemographics		Model 2: Sociodemographics, Worst Event Type		Model 3: Sociodemographics, Worst Event Type, Prior PTEs		Model 4: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs		Model 5: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs, Prior Mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Age of PTSD onset										
Early childhood (<5 y)	3.1*	(1.0–9.5)	2.9	(0.8–10.7)	2.2	(0.7–7.1)	1.8	(0.5–6.3)	2.6	(0.5–13.1)
Middle/late childhood (5–10 y)	2.3	(0.9–5.6)	2.2	(0.9–5.6)	1.8	(0.7–4.6)	1.6	(0.6–4.2)	2.9	(0.9–9.4)
Early adolescence (11–13 y)	2.2	(0.9–5.7)	2.4	(0.9–6.0)	1.9	(0.7–5.1)	1.9	(0.7–5.3)	2.4	(0.8–7.2)
Adolescence (14+)	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_3 (*p* value)	5.5		4.8		2.5		1.8		3.6	
Time since PTSD onset (mo)										
1–3	2.1	(0.7–6.4)	2.1	(0.7–6.1)	2.2	(0.7–6.5)	1.9	(0.6–5.6)	2.2	(0.8–6.1)
4–6	0.3	(0.1–1.3)	0.3	(0.1–1.2)	0.3	(0.1–1.3)	0.3	(0.1–1.2)	0.3	(0.1–1.2)
7–12	1.2	(0.3–5.0)	1.2	(0.3–4.9)	1.2	(0.3–5.1)	1.1	(0.3–4.2)	1.2	(0.3–4.6)
13–24	4.1*	(1.4–12.1)	4.1*	(1.4–12.0)	4.1*	(1.4–11.6)	3.7*	(1.4–10.1)	4.1*	(1.7–10.1)
25+	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_4	18.7*		18.7*		18.4*		18.2*		20.3*	
Sex										
Female	0.7	(0.3–1.7)	0.7	(0.3–1.6)	0.8	(0.3–2.5)	0.9	(0.3–2.7)	0.9	(0.3–2.8)
Male	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.6		0.8		0.1		0.0		0.0	
Race/ethnicity										
Non-white	2.1	(0.9–4.8)	2.1	(1.0–4.6)	2.2	(1.0–5.2)	2.1	(0.9–5.0)	2.3	(0.9–5.8)
White	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	2.8		3.5		3.5		3.0		3.3	
Parent education										
No college	2.2	(0.9–5.7)	2.0	(0.7–5.6)	1.8	(0.6–5.0)	2.0	(0.7–5.6)	1.9	(0.8–4.9)
Some college	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	2.8		1.6		1.1		1.9		1.9	

TABLE S6 Continued

	Model 1: Sociodemographics		Model 2: Sociodemographics, Worst Event Type		Model 3: Sociodemographics, Worst Event Type, Prior PTEs		Model 4: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs		Model 5: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs, Prior Mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Poverty										
High poverty	0.3*	(0.1–0.7)	0.3*	(0.1–0.6)	0.3*	(0.1–0.7)	0.3*	(0.1–0.7)	0.3*	(0.1–0.7)
Low poverty	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	8.6*		9.0*		7.5*		8.1*		9.1*	
Urbanicity										
Metro/other urban	0.6	(0.2–1.5)	0.6	(0.2–1.6)	0.7	(0.2–1.9)	0.7	(0.2–1.9)	0.6	(0.2–1.7)
Rural	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	1.3		1.0		0.5		0.6		0.9	
Biological parents in home										
≤1	0.7	(0.3–1.5)	0.7	(0.3–1.4)	0.7	(0.3–1.4)	0.7	(0.4–1.4)	0.7	(0.3–1.3)
2	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	0.8		1.2		1.3		0.9		1.5	
Nativity										
Foreign-born	11.9*	(2.5–56.0)	11.1*	(2.4–51.5)	10.5*	(2.2–50.5)	10.9*	(1.6–74.1)	13.0*	(2.5–69.0)
U.S.-born	1.0	—	1.0	—	1.0	—	1.0	—	1.0	—
χ^2_1	9.9*		9.4*		8.6*		6.0*		9.1*	
Prior mental disorders[c]										
Fear									0.7	(0.4–1.2)
Distress									1.6	(1.0–2.7)
Behavior									1.5	(0.9–2.5)
Substance									2.5	(0.6–10.3)
Bipolar disorder									0.0*	(0.0–0.3)
χ^2_5									17.0*	
Worst event category[d]										
Interpersonal violence			1.2	(0.5–3.2)	1.3	(0.5–3.7)	1.4	(0.5–3.9)	1.4	(0.5–4.5)
Accidents			1.7	(0.3–8.6)	2.0	(0.3–12.2)	2.0	(0.3–12.1)	2.2	(0.3–14.2)
Network/ witnessing			0.6	(0.2–2.4)	0.6	(0.1–3.4)			0.9	(0.1–6.1)

TABLE S6 Continued

	Model 1: Sociodemographics		Model 2: Sociodemographics, Worst Event Type		Model 3: Sociodemographics, Worst Event Type, Prior PTEs		Model 4: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs		Model 5: Sociodemographics, Worst Event Type, Prior PTEs, Subsequent PTEs, Prior Mental Disorders	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Other							0.6	(0.1–3.4)		
χ^2_4			1.0		1.1		1.0		0.9	
Prior PTEs[e]										
Interpersonal violence					1.0	(0.6–1.6)	1.0	(0.6–1.6)	1.0	(0.6–1.7)
Accidents					1.2	(0.6–2.2)	1.3	(0.7–2.5)	1.5	(0.8–2.8)
Network/ witnessing					0.3	(0.1–1.1)	0.3	(0.1–1.3)	0.3	(0.1–1.4)
Other					1.7	(0.4–7.9)	1.5	(0.3–7.2)	1.2	(0.2–6.6)
χ^2_4					3.8		3.6		4.7	
Subsequent PTEs[f]										
Interpersonal violence							0.8	(0.4–1.5)	0.8	(0.4–1.5)
Accidents							0.9	(0.1–8.5)	0.9	(0.2–4.1)
Network/ witnessing							1.0	(0.4–2.3)	1.1	(0.5–2.5)
Other							0.3	(0.0–1.8)	0.2*	(0.0–0.6)
χ^2_4							5.6		12.6*	

Note: Metro = metropolitan area.

[a]*Models were estimated using discrete-time survival analysis with person-years as the unit of analysis. Only respondents with lifetime PTSD were included in the analysis.*

[b]*Poverty was defined using household family income for the past-year relative to the federally defined poverty line based on family size. Poverty was defined as less than 3 times the poverty line and low poverty (reference group) as 3 or more times the poverty level.*

[c]*Variables represent counts of fear, distress, behavior, substance, and bipolar disorders with onsets before occurrence of respondents' self-reported worst event.*

[d]*Variables represent worst event types: interpersonal violence, accidents, network/witnessing, and other events.*

[e]*Variables represent counts of PTEs occurring before respondents' self-reported worst event within each of the 4 trauma categories: interpersonal violence, accidents, network/witnessing, and other events.*

[f]*Variables represent counts of PTEs occurring after the respondents' self-reported worst event within each of the 4 trauma categories: interpersonal violence, accidents, network/witnessing, and other events.*

**Significant at the .05 level, 2-sided test.*