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Trauma Exposure and Risk of Suicidal Ideation among Ethnically-Diverse Adults

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Abstract

Background—Little is known about the association between trauma exposure and suicidal ideation across racial/ethnic groups. Our study aim was to determine the association between trauma exposure and suicidal ideation in a nationally representative ethnically-diverse sample of adults.

Methods—This study included 14,866 White, Hispanic, Black, and Asian participants 18 years and older involved in the Collaborate Psychiatric Epidemiology Surveys (2001–2003), comprised of three nationally representative studies (NCS-R, NSAL, and NLAAS). Lifetime history of suicidal ideation as assessed in the World Health Organization's World Mental Health Survey Initiative version of the Composite International Diagnostic Interview (WMH-CIDI).

Results—Of the 81% respondents who reported being exposed to trauma as assessed in the WMH-CIDI, 12.1% endorsed lifetime suicidal ideation. Additionally, of the 19% who did not report trauma, 1.1% endorsed lifetime suicidal ideation. Fully-adjusted, multivariable logistic regression models revealed two traumas consistently associated with significantly higher odds for suicidal ideation across all four racial groups examined: Assaultive/interpersonal violence and child maltreatment. Asians, in particular, had the highest likelihood for suicidal ideation in both trauma categories, with a near 3-fold increased odds for assaultive/interpersonal violence exposure (OR: 2.56; 95% CI: 1.71–3.83) and nearly 9-fold increased odds for child maltreatment exposure (OR: 8.43; 95% CI: 4.91–14.49).

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Discussion—Suicidal ideation in racially/ethnically diverse American adults is strongly associated with assaultive/interpersonal violence and child maltreatment, independent of PTSD, MDD, and substance use. These findings highlight the need for monitoring of suicidal behavior following assaultive/interpersonal trauma and child maltreatment, regardless of the presence of a psychiatric disorder.

INTRODUCTION

While a diagnosis of Posttraumatic Stress Disorder (PTSD) has been consistently shown to increase the risk of suicidal ideation,[1–7] the effect of general trauma exposure on suicidal ideation is not clearly understood. Moreover, studies that have explored this relationship have been with samples that are limited in their generalizability to the larger population of racially and ethnically diverse adults. Research of potential racial disparities in trauma exposure and suicidal ideation is important, considering the variability of exposure. For example, homicide, is the leading cause of death for African Americans and the second leading cause for Hispanics.[8] In addition, non-Whites are at a significantly higher risk of experiencing assaultive violence (e.g. rape, mugging) than Whites.[9] The possibility that trauma exposure is related to suicidal ideation has not been widely investigated.

Previous studies have predominantly focused on non-diverse samples, with a limited range of traumas being examined. Interpersonal trauma[10,11] and child maltreatment[12,13] are most often the trauma types examined in association with suicidal ideation. Only a few studies have considered other trauma types, but were done so internationally[14,15] or among a narrow age range of adults (e.g., those ≤ 55).[16] In addition, of the studies that have examined the relationship of multiple trauma exposures to suicidal ideation, most have been underpowered to account for psychiatric and substance use comorbidities. To our knowledge, the association between trauma exposure and suicidal ideation has not been studied in a nationally representative U.S. sample whereby examination of the association by race/ethnicity is possible, and at the same time having the power to adjust for important demographic and psychiatric factors.

By using the Collaborative Psychiatric Epidemiology Surveys (CPES), an aggregate sample of three nationally representative datasets from the U.S., our study aims to inform the literature about the influence of trauma exposure on suicidal ideation among racially/ethnically diverse adults. The purpose of our study was to determine the association between trauma exposure categories and suicidal ideation in a large probability sample of racially and ethnically diverse Americans, determining traumas that convey more risk than others. In addition, we examine whether trauma exposure is associated with suicidal ideation above and beyond its relationship to major depressive disorder (MDD), PTSD, and substance abuse.

METHODS

Data and Participants

Data for this study were obtained from the Collaborative Psychiatric Epidemiology Surveys (CPES 2001–2003). The CPES combines 3 nationally representative cross-sectional surveys

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(National Comorbidity Survey Replication, National Survey of American Life, and National Latino and Asian American Study), which total 20,013 noninstitutionalized participants 18 years and older in the United States. The CPES sampling methodology has been described in detail elsewhere.[17]

The current sample consisted of 14,866 CPES respondents who had data on trauma exposure and suicidal ideation. The CPES data were obtained from the Inter-university Consortium for Political and Social Research.[18] The Committee on Human Research at the University of California, San Francisco, and the Committee for Research and Development at the San Francisco Veterans Affairs Medical Center approved the study.

Measures

Diagnostic and Trauma Assessment—Trauma exposure and psychiatric diagnoses were determined using the World Health Organization's World Mental Health (WMH) Survey Initiative version of the Composite International Diagnostic Interview (CIDI).[19] The WMH-CIDI is a fully structured lay interview that generates lifetime and 12-month diagnoses according to the International Classification of Diseases, Tenth Revision[20] and DSM-IV[21] criteria. In the present analyses, DSM-IV criteria were used. Trauma exposure was assessed as part of the PTSD module. We evaluated PTSD, MDD, and substance use disorders (defined by alcohol and drug abuse or dependence) as confounders.

Trauma Exposure—Self-reported exposure to up to 27 types of trauma was assessed. For the purpose of the present study, the trauma types were divided into eight categories: Warzone exposure, assaultive/interpersonal trauma, child maltreatment, serious accidents/ illness, disaster exposure, witnessing serious trauma, experiencing trauma to someone close, and inflicting trauma. The consolidation of the 27 items into eight categories was informed by expert consensus, as well as prior research that has utilized trauma categories.[14,22] The breakdown of trauma categories in the present study can be seen in appendix A. For each trauma endorsed, respondents additionally provided age of exposure.

Suicidal Ideation—Suicidal ideation was assessed in its own section of the WMH-CIDI. Respondents were asked about their lifetime history of suicidal ideation ("Have you ever seriously thought about committing suicide?"). Subsequently, the respondent was asked to provide his/her age (in years) when suicidal ideation first occurred. Only instances of suicidal ideation following trauma exposure were considered for the present analyses. Thus, participants who endorsed suicidal ideation prior to a trauma were excluded.

Other Variables—The demographic variables included in analyses were age, sex, educational attainment (completed, 0–11, or ≥ 12 years), marital status (married or cohabitating; divorced, separated, or widowed; or never married), and income defined by the poverty index (i.e., the ratio of household income to poverty threshold used in the 2001 US census and adjusted for household size; categorized as low [≤ 1.5 times the poverty line], middle [>1.5–6.0 times], and high [>6.0 times].[23–25]

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Statistical Analyses

To produce nationally representative estimates, we implemented clustering and weighting techniques to reduce systematic bias and imprecision imbedded in the complex sampling design. Thus, percentages represent weighted proportions by racial group, with statistical differences estimated based on the Rao-Scott χ^2, which corrects for the complex design.[26]

We examined the associations between trauma exposure and suicidal ideation using weighted logistic regression analyses. In order to examine the independent contributions of the trauma categories all eight trauma categories were entered into the model, along with demographics and psychiatric disorders (PTSD, MDD, and substance use disorders). Odds ratios (OR) and 95% CIs were estimated.

Statistical tests were two-tailed with $p < .05$ defining statistical significance. All analyses were performed using SAS Survey Procedures, version 9.3 (SAS Institute, Inc). Unless otherwise specified, all results presented are based on weighted analyses.

RESULTS

In unweighted analyses, the mean age of the sample was 42.3 (SD= 16.1; range =18–98) years. The distribution was 58.4% women, 27.2% White, 36.7% Black, 21.7% Hispanic, and 14.5% Asian. In weighted analyses, 81% of the respondents endorsed exposure to trauma, and 13.2% endorsed lifetime suicidal ideation. Of those who were exposed to any trauma, 12.1% endorsed lifetime suicidal ideation; and of the 19% who were not exposed to trauma, 1.1% reported suicidal ideation.

The weighted baseline demographics of the 14,866 adults are presented in Table 1 by race/ethnicity. The respondents were significantly different across all four race/ethnic categories. Hispanics were generally younger (37.9 years) and had a higher prevalence of low educational level (42.6%). Blacks reported the lowest prevalence of being in a high income level (7.4%), and highest prevalence of PTSD (7.8%). Asians were the most likely to be married (69.1%), and had the lowest prevalence of any psychiatric disorder – including PTSD (1.4%). Finally, Whites were generally older (47.0 years), were the least likely to attain low educational level (15.5%), and had the highest prevalence of substance use disorders (13.1%) and major depression (16.6%).

As indicated in Table 2, large absolute differences were seen in the prevalence of trauma exposure categories across race/ethnicity. Blacks endorsed experiencing the most assaultive/interpersonal traumas (45.4%), while Whites had the highest exposure to serious accidents and illnesses (41.3%), and Hispanics reported the most exposure to child maltreatment (24.8%). Asians reported the lowest prevalence of all the trauma categories, except war exposure (23.8%).

Risk of Suicidal Ideation

Odds ratios (OR) based on logistic regression models showed significant increase in the likelihood of suicidal ideation after trauma exposure predominantly for individuals exposed to assaultive/interpersonal trauma and child maltreatment. Demographically-adjusted (Table

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3a) and fully-adjusted models accounting for PTSD, MDD, and substance use (Table 3b) revealed that all four race/ethnic groups have an approximate 2-fold increased likelihood of suicidal ideation following exposure to assaultive/interpersonal trauma. Exposure to child maltreatment was also associated with increased suicidal ideation and the magnitude of odds varied across race/ethnic groups. Fully-adjusted models revealed that child maltreatment exposure was associated with a nearly 4-fold odds for suicidal ideation among Whites (95% CI: 2.84–4.33) and Blacks (95% CI: 2.88–4.81) and nearly 5-fold odds for Hispanics (95% CI: 3.41–6.95). The highest likelihood for suicidal ideation was seen in the Asian race/ethnic category, where exposure to child maltreatment was associated with an almost 9-fold odds (95% CI: 4.91–14.49) for suicidal ideation in the fully-adjusted model. Two trauma categories were associated with lower likelihood for suicidal ideation: Warzone exposure in Whites and Hispanics, and experiencing a trauma to someone close for Whites, Blacks, and Hispanics.

DISCUSSION

In this study of racially and ethnically diverse Americans, we found that only two trauma exposures, assaultive/interpersonal trauma and child maltreatment exposure, were consistently associated with suicidal ideation across all four racial groups. Asians, in particular, had the highest likelihood of suicidal ideation after exposure to these trauma categories, including an odds ratio in the child maltreatment category that was nearly double compared to the other three racial categories. Finally, being exposed to warzones were shown to be associated with lower odds for suicidal ideation specifically in Whites and Hispanics, and experiencing a trauma to someone close was associated with decreased suicidal ideation in Whites, Blacks, and Hispanics—both unexpected findings.

Although trauma exposure has previously been found to be associated with suicidal ideation in non-diverse samples, our study expands upon previous work by using a nationally representative dataset, examining the relationship through a multi-racial perspective, accounting for demographics and psychiatric disorders such as major depression and posttraumatic stress disorder, and studying the potential exposure to a wide range of traumas that are encountered in society. Considering the high prevalence of exposure to one or more traumatic events nationwide (which, in our study, was 81% of the nationally representative sample) and that current rates of suicide have increased 28.4% (going from 13.7 per 100,000 population to 17.6) in adults age 35–64 years from 1999 to 2010,[27] research to better understand the influence of individual trauma events or a group of events on suicide-related behavior is imperative for developing prevention strategies for suicide. Even more so, investigations of associations by race/ethnicity are rare and important to understand in order to better tailor evaluation and treatment.

Of the few epidemiological studies that have examined either assaultive/interpersonal violence or child maltreatment in relation to suicidal ideation, most findings were similar to our study. In a project spanning 21 countries, Stein and colleagues[14] reported twice the risk for suicidal ideation among those exposed to sexual violence and 60% increased risk for those exposed to interpersonal violence. Although they did not examine specific racial groups, our findings were consistent with the Stein et al. results in that we found for those

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exposed to interpersonal violence, which included sexual assault, an approximate 2-fold increased risk for suicidal ideation across all racial groups. Similar findings were seen in a nationally representative U.S. study[16] where men who were held captive, kidnapped or threatened with a weapon were 54% more likely to endorse suicidal ideation. Additionally, women who reported rape or sexual molestation had 73% and 75% increased risk of suicidal ideation, respectively. Finally, a study of South Africans[15] found a 2.2-fold increased risk for suicidal ideation in those exposed to sexual violence, which further confirms our study results as consistent cross-culturally.

Our findings on the association between child maltreatment and suicidal ideation across race/ethnicity are the most striking. While work by Belik and colleagues,[16] who found a 2-fold increased risk of suicidal ideation among men who reported physical abuse as a child and a 2.6-fold increased risk for men who reported serious neglect as a child, provide a foundation for comparison, the present study's findings indicate a much higher risk when broken down by race/ethnicity. Whites and Blacks in our study had a nearly 4-fold risk for suicidal ideation, and Hispanics were shown to have a nearly 5-fold risk. Additionally, the present study is the first to report a nearly 10-fold risk of suicidal ideation in Asians who were exposed to child maltreatment versus those who were not. Being that Asians in our study reported the lowest prevalence of child maltreatment of the four race/ethnic groups examined, this finding is particularly intriguing as it might allude to the potency of child maltreatment in the Asian community. This low prevalence of child maltreatment endorsed among Asians is consistent with literature on the subject.[28,29] However, prior research has not yet investigated this relationship among Asians with suicidal ideation as an outcome. This finding suggests the need for further research to understand potential mechanisms.

There were a number of surprising findings we did not anticipate. First, of the associations that were significant, some did not reflect a difference among race/ethnic groups—particularly in the assaultive/interpersonal category. These generally consistent associations across racial groups could be reflective of a uniform impact of trauma across race/ethnicities when it comes to suicidal ideation. Indeed, the significant protective findings (e.g., warzone exposure, and learning of a trauma to someone close) too are consistent across race/ethnic groups. The protective findings are another source of inquiry, and require further understanding of the mechanisms that influence this association. Warzone exposure, in particular, was a fairly heterogeneous group in this sample, as there was not enough statistical power to separate civilians and combat veterans. Experiencing a trauma to someone close, however, was subject to less power concerns considering the sample size across races in that trauma category, and produced a consistent protective result across Whites, Blacks, and Hispanics.

The present study has several important strengths. It is the first study, to our knowledge, that has assessed such a large range of traumatic events in relation to suicidal ideation stratified by race/ethnicity. Furthermore, the large CPES dataset allowed us the power to adjust for multiple psychiatric and substance use disorders, while still allowing for race/ethnic subgroup analyses. Limitations of the present study include an underrepresentation in the CPES dataset of homeless and institutionalized adults. Thus, generalizability of the present study findings to more vulnerable populations is not warranted. Second, the WMH-CIDI is

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not a clinically administered assessment; though, it has good concurrent validity with the Structured Clinical Interview for the DSM-IV.[30] Another limitation is the exclusion of sexual abuse from the child maltreatment category. Only questions that specifically referenced childhood (e.g., "As a child…" or "When you were a child…") were included in this category. Thus, specific traumas that did not reference childhood (e.g. sexual assault) were not included, as determination of a trauma occurring in childhood was left to the discretion of the respondent. Finally, recall bias is a potential limitation, however it has been shown that recall bias is minimally affected when respondents are asked to retrospectively report traumas of this nature and suicidal ideation.[31]

The results of the present study reveal important clinical implications. First, the findings emphasize the importance of monitoring for suicidal ideation among those who were exposed to prior traumatic events, independent of PTSD, depression, and substance use disorders. Given the strong association of child maltreatment and interpersonal traumas with suicide-related behavior, the present study's findings may inform healthcare providers to hone in on a specific history of traumas and, thus, guide targeted suicide screening efforts. Importantly, despite significant risk for suicidal ideation following these categories of trauma, our study suggests that trauma exposure is only one facet in suicide screening and monitoring. Our findings additionally highlight that different race/ethnic groups have varying degrees of risk, where certain exposures may put individuals from diverse backgrounds at a uniquely high risk for suicidal ideation. Finally, further research is needed to determine the mechanisms underlying these associations, and what cultural tenets may put some individuals at higher risk for suicidal ideation than others from different race/ethnic groups.

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APPENDIX A

War Exposure

Combat participant

Peacekeeper or Relief Worker

Unarmed civilian in warzone

Lived as a civilian in an area of ongoing terror

Ever a Refugee

Assaultive/Interpersonal Violence

Badly beaten by spouse or romantic partner

Badly beaten by anyone else

Mugged, held up or threatened with a weapon

Raped

Sexually assaulted other than rape

Stalked

Kidnapped or held captive

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Child Maltreatment

Badly beaten by parents

Witnessed serious physical fights at home as a child

Serious Accidents or Illness

Life-threatening automobile accident

Other life-threatening accident, including on job

Exposed to toxic chemical/substance that could cause serious harm

Life-threatening illness

Disaster

Major natural disaster

Man-made disaster

Witnessed Serious Trauma

Witnessed someone badly injured or killed / unexpectedly witnessed a dead body

Witnessed atrocities or carnage

Trauma to Someone Close

Someone close died unexpectedly

Child had a life-threatening illness or injury

Someone close had an extremely traumatic experience

Inflicted Trauma

Did something that accidently led to serious injury/death of another

Purposefully seriously injured, tortured, or killed another

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Table 1

Characteristics of 14,866 Adults 18 Years and Older from the CPES by Race/Ethnicity[a]

Characteristic	Total	White (n= 4,043)	Black (n= 5,452)	Hispanic (n= 3,223)	Asian (n= 2,148)	F or χ^2, df	*P* value
Age, years, mean (SE)	45.0 (0.4)	47.0 (0.6)	41.9 (0.5)	37.9 (0.5)	41.3 (0.7)	107.1, 1	<.001
Male gender	47.9 (0.8)	47.8 (1.1)	44.5 (0.7)	51.8 (1.5)	47.4 (1.15)	15.8, 3	<.001
Married/cohabitating	59.1 (1.0)	60.8 (1.4)	41.5 (1.0)	62.3 (1.3)	69.1 (1.6)	206.9, 6	<.001
Education, < 12 years	18.3 (0.8)	13.0 (1.0)	23.8 (1.1)	42.6 (1.7)	14.8 (1.4)	617.9, 9	<.001
Income						441.8, 6	<.001
Low	21.3 (0.9)	15.5 (1.1)	36.4 (1.3)	38.1 (2.2)	21.8 (1.4)		
Middle	57.4 (1.1)	60.1 (1.4)	56.2 (1.1)	48.9 (1.7)	43.5 (1.5)		
High	21.4 (1.1)	24.4 (1.5)	7.4 (0.7)	13.0 (0.9)	34.7 (1.5)		
Psychiatric Disorders							
Substance Use Disorder[b]	12.0 (0.5)	13.1 (0.6)	10.4 (0.6)	10.8 (1.0)	3.3 (0.5)	57.4, 3	<.001
MDD	14.8 (0.6)	16.6 (0.8)	9.4 (0.5)	12.3 (0.6)	8.1 (1.0)	133.4, 3	<.001
PTSD	5.8 (0.4)	6.1 (0.5)	7.8 (0.4)	4.2 (0.4)	1.4 (0.4)	52.4, 3	<.001

Abbreviations: CPES, Collaborative Psychiatric Epidemiology Surveys; MDD, major depressive disorder; PTSD, posttraumatic stress disorder.

[a]Values are presented as a weighted percentage (SE) unless otherwise indicated; N's are unweighted

[b]Substance use disorder defined by alcohol abuse, alcohol dependence, drug abuse, or drug dependence.

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Table 2

Prevalence of Trauma Exposure by Race/Ethnicity (n = 14,866)[a]

Trauma Categories	Total	White (n= 4,043)	Black (n= 5,452)	Hispanic (n= 3,223)	Asian (n= 2,148)	F or χ^2, df	*P* value
War Exposure	10.0 (0.6)	9.2 (0.8)	9.6 (0.6)	0.6 (0.9)	23.8 (1.3)	92.5, 3	<.001
Assaultive/Interpersonal	37.5 (1.1)	36.9 (1.5)	45.4 (1.2)	38.1 (1.7)	25.1 (1.1)	48.1, 3	<.001
Child Maltreatment	16.9 (0.6)	15.1 (0.9)	21.2 (0.8)	24.8 (0.9)	11.2 (0.9)	100.9, 3	<.001
Serious Accident or Illness	37.9 (0.9)	41.3 (1.2)	33.5 (0.9)	29.0 (0.8)	22.3 (1.1)	272.4, 3	<.001
Disaster Exposure	22.0 (0.9)	22.7 (1.2)	19.4 (1.1)	20.9 (1.1)	20.8 (1.3)	7.08, 3	.069
Witnessed Trauma	29.6 (0.7)	29.7 (0.9)	34.6 (1.1)	26.9 (1.5)	22.3 (1.1)	32.8, 3	<.001
Trauma to Someone Close	50.7 (1.1)	53.2 (1.5)	55.5 (1.2)	40.4 (1.1)	29.4 (1.4)	170.4, 3	<.001
Inflict	3.1 (0.2)	2.8 (0.3)	4.9 (0.4)	3.7 (0.4)	1.1 (0.2)	37.3, 3	<.001

[a]Values are presented as a weighted percentage (SE) unless otherwise indicated; N's are unweighted

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Table 3a

Association between Trauma Exposure and Suicidal Ideation by Racial Category (n = 14,866) – Demographically-adjusted[a]

	Odds Ratio (95% CI)				
Characteristic	**Total**	**White**	**Black**	**Hispanic**	**Asian**
Warzone Exposure	**0.49 (0.39–0.62)**	**0.46 (0.33–0.64)**	0.82 (0.56–1.17)	**0.50 (0.29–0.87)**	0.88 (0.49–1.58)
Assaultive/Interpersonal Trauma	**2.07 (1.81–2.36)**	**2.09 (1.77–2.48)**	**2.22 (1.72–2.87)**	**1.93 (1.34–2.77)**	**2.62 (1.78–3.86)**
Child Maltreatment	**3.88 (3.17–4.75)**	**3.87 (2.93–5.12)**	**3.72 (2.92–4.75)**	**5.24 (3.71–7.41)**	**9.53 (5.46–16.64)**
Serious Accidents/Illness	1.10 (0.93–1.31)	1.05 (0.84–1.31)	0.87 (0.64–1.18)	1.13 (0.80–1.59)	1.24 (0.77–2.02)
Disaster Exposure	1.00 (0.84–1.19)	0.98 (0.78–1.21)	1.22 (0.88–1.69)	1.01 (0.66–1.54)	0.57 (0.32–1.01)
Witnessed Serious Trauma	0.95 (0.74–1.23)	0.93 (0.66–1.32)	1.07 (0.84–1.38)	1.17 (0.80–1.72)	1.18 (0.75–1.84)
Trauma to Someone Close	**0.62 (0.53–0.72)**	**0.58 (0.48–0.71)**	**0.58 (0.44–0.76)**	**0.70 (0.50–0.99)**	0.79 (0.51–1.23)
Inflicted Trauma	**1.44 (1.00–2.06)**	**1.72 (1.07–2.75)**	0.96 (0.47–1.96)	1.60 (0.63–4.08)	0.55 (0.10–2.96)

[a]Model adjusted for demographics (age, gender, education, marital status, income)

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Table 3b

Association between Trauma Exposure and Suicidal Ideation by Racial Category (n = 14,866) – Fully-adjusted[a]

	Odds Ratio (95% CI)				
Characteristic	**Total**	**White**	**Black**	**Hispanic**	**Asian**
Warzone Exposure	**0.51 (0.41–0.64)**	**0.50 (0.36–0.67)**	0.77 (0.50–1.19)	**0.43 (0.23–0.79)**	0.80 (0.44–1.48)
Assaultive/Interpersonal Trauma	**1.77 (1.53–2.04)**	**1.82 (1.53–2.16)**	**1.86 (1.45–2.38)**	**1.55 (1.10–2.17)**	**2.56 (1.71–3.83)**
Child Maltreatment	**3.50 (2.84–4.33)**	**3.42 (2.58–4.53)**	**3.72 (2.88–4.81)**	**4.87 (3.41–6.95)**	**8.43 (4.91–14.49)**
Serious Accidents/Illness	1.05 (0.88–1.26)	1.02 (0.81–1.27)	0.80 (0.58–1.11)	1.07 (0.74–1.53)	1.20 (0.72–2.01)
Disaster Exposure	0.97 (0.80–1.17)	0.94 (0.75–1.18)	1.24 (0.89–1.73)	1.04 (0.68–1.59)	**0.54 (0.29–0.99)**
Witnessed Serious Trauma	0.92 (0.72–1.19)	0.93 (0.66–1.30)	0.98 (0.76–1.26)	1.02 (0.69–1.52)	1.14 (0.73–1.76)
Trauma to Someone Close	**0.56 (0.48–0.66)**	**0.53 (0.44–0.65)**	**0.51 (0.49–0.68)**	**0.64 (0.45–0.90)**	0.75 (0.48–1.18)
Inflicted Trauma	1.21 (0.86–1.70)	1.40 (0.90–2.18)	0.77 (0.36–1.67)	1.60 (0.56–4.58)	0.49 (0.07–3.44)

[a]Model adjusted for demographics (age, gender, education, marital status, income) and psychiatric disorders (MDD, PTSD, and substance use disorders).