The Relationship Between Traumatic Life Events, Alcohol Abuse/Dependence, and PTSD: Findings from a Nationally Representative Sample.

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Introduction

◆ Posttraumatic stress disorder (PTSD) and recently alcohol-use disorders (AUDs) have been readily established as a well-known pathological response to trauma (e.g., Breslau, Davis, & Schultz, 2003).

◆ Although much evidence suggests a strong relationship between trauma and the presence of PTSD and AUDs (Jacobsen et al., 2001), reports of variability in alcohol-use (McFarlane, 1998) and PTSD symptoms (Perkonigg et al., 2000) among those exposed to trauma appear throughout contemporary literature.

◆ Extant research has either defined trauma as a unitary construct (Breslau et al., 2003), examined only a few specific events (North et al., 2004), or only examined select events (Dube et al., 2003) irrespective of other adverse occurrences. To date, this line of research has primarily focused on military (e.g., Bray & Hourani, 2007) or treatment-seeking (e.g., Gillespie et al., 2009) populations.

◆ The purpose of the current study was, first, to examine the relationship between individual traumatic events and AUDs irrespective of PTSD diagnoses; and second, to examine the relationship between individual traumatic events and AUDs as they appear among individuals with and without a diagnosis of PTSD.

◆ The present study utilized data from a large, nationally representative sample, and included 27 potentially traumatic events.

Methods

Sample

◆ Participants (n = 34,653) were gathered from Wave 2 of the National Epidemiologic Survey of Alcohol and Related Conditions (NESARC), a nationally representative survey of adults 18 years or older, living in the United States and District of Columbia.

Measures

◆ The Alcohol Use Disorders and Associated Disabilities Interview Schedule – IV (AUDADIS-IV) is a fully structured diagnostic interview used to assess Axis I and II mental disorders.

◆ 27 traumatic events were assessed as part of the NESARC interview protocol. In line with prior research (Roberts et al., 2010) events were divided into 6 categories (i.e., war-related trauma, child maltreatment, assaultive violence, other shocking events, unexpected death, learned of trauma).

Analyses

◆ SUDAAN 10.0.1 statistical software was used to adjust the standard error of the sample and apply the weighting variables included in the NESARC.

◆ Two series of logistic regression analyses were ran to assess for the likelihood of AUDs. The first series were ran regardless of PTSD diagnosis, and the second separated individuals with and without a diagnosis of PTSD. All analyses were run after adjusting for sociodemographics and all Axis I and II disorders (excluding alcohol use disorders and PTSD).

Results

◆ The first series of logistic regressions (see Table 1) analyses revealed all categories of traumatic events, except any-war related trauma, were significantly associated with the presence of AUDs.
  ◆ Adjusted odds ratios (AORs) for individual events (data not shown) indicating risk of AUDs ranged from 2.14 (CI 95%=1.98-2.32 [mugged/held up/threatened with a weapon]) to 11.6 (CI95%=1.03-1.29 [any childhood sexual abuse]).
  ◆ Being an unarmed civilian in a war zone (0.06 [CI95%= 0.49-0.85]) and a refugee (0.29 [CI95%= 0.16-0.50]) indicated reduced risk of AUDs.

◆ The second series(see Table 2) separated individuals with and without a diagnosis of PTSD. All categories of traumatic events, except any war related trauma, were significant among those who did not meet criteria for PTSD.
  ◆ AORs for individual events ranged from 2.11 (CI95%= 1.93-2.31 [mugged/held up/threatened with a weapon]) to 1.13 (CI 95% = 1.00-1.27 [childhood sexual abuse]).
  ◆ Being an unarmed civilian in a warzone (0.64 [CI95% =0.48-0.85]) and a refugee (0.25[CI95%=0.14-0.46]) indicated reduced risk of AUDs.

◆ Among those who met criteria for PTSD only assaultive violence and child maltreatment significantly predicted AUDs.
  ◆ AORs for individual events indicating risk of AUDs ranged from 2.09 (CI95%=1.67-2.61 [mugged/held up/ threatened with a weapon]) to 1.32 (CI95%=1.01-1.72 [someone close to you have any other stressful/traumatic experience]).

Discussion

◆ Results indicate a robust relationship between AUDs and traumatic events irrespective PTSD presence.
  ◆ Five of six categories, and the majority of individual traumatic events (data not shown), were strongly associated with an increased risk of AUDs.

◆ The relationship between AUDs and traumatic events was most pronounced among individuals without PTSD.

◆ Assaultive violence and child maltreatment were the only traumatic events categories that significantly predicted AUDs among individuals with and without a diagnosis of PTSD.

◆ Among events significantly predicting AUDs, only child maltreatment showed a higher odds ratio among those who had met criteria for PTSD than those who had not.

◆ War-related trauma failed to significantly predict AUDs.
  ◆ Non-significant findings among war-related trauma may be due to competing directionality of significant individual trauma within the category.

◆ Limitations include the cross-sectional data, absence of clinical population, lack of clinician diagnoses, and not every Axis I and II mental disorder was able to be adjusted for (e.g., obsessive compulsive disorder).

◆ The current study underscores the importance of recognizing trauma histories among individuals presenting with an AUD and suggests that AUDs represent a salient risk regardless of the presence of PTSD.

Table 1: Lifetime exposure to potentially traumatizing event by AUDs

Traumatic Event(s)	No AUD n (%)	Yes AUD n (%)	AOR (95%CI)
War-related trauma (n=2438)	1518 (7.2)	923 (8.2)	1.00 (0.87-1.14)
Child maltreatment (n=14,061)	8705 (35.9)	5561 (47.4)	1.31 (1.23-1.40)***
Assaultive violence (n=9589)	5321 (21.2)	4308 (36.1)	1.43 (1.34-1.54)***
Other shocking event (n=16503)	10288 (44.8)	6241 (55.6)	1.17 (1.10-1.25)***
Unexpected death (n= 14289)	8867 (38.9)	5427 (48.3)	1.21 (1.13-1.29)***
Learned of trauma (n= 17600)	11160 (49.4)	6522 (58.4)	1.21 (1.12-1.29)***

Table 2: Lifetime exposure to potentially traumatizing events by AUD among those with and without PTSD

Traumatic Event(s)	No PTSD No AUD n (%)	No PTSD Yes AUD n (%)	No PTSD AOR (95% CI)	Yes PTSD No AUD n (%)	Yes PTSD Yes AUD n (%)	Yes PTSD AOR (95% CI)
War-related trauma	1390 (7.0)	778 (7.4)	0.98(0.85-1.13)	128(10.0)	145 (16.5)	1.47(0.95-2.29)
Child maltreatment	7852(34.6)	4825(45.3)	1.32(1.23-1.41)***	853(58.0)	726 (72.6)	1.40(1.08-1.83)**
Assaultive violence	4545(19.4)	3610(33.3)	1.42(1.13-1.78)***	776(51.5)	698(68.7)	1.41(1.13-1.77)**
Other shocking event	9296(43.3)	5478(53.8)	1.19(1.12-1.28)***	992(69.3)	763(76.9)	1.01(0.74-1.37)
Unexpected death	7931(37.4)	4742(46.6)	1.25(1.16-1.34)***	936(65.2)	685(68.3)	0.88(0.70-1.11)
Learned of trauma	10146(48.2)	5768(56.8)	1.22(1.13-1.30)***	1014(70.6	751(77.2)	1.17(0.90-1.52)

* p < .05, ** p < .01, *** p < .001. Numbers are unweighted; Percents are weighted. AOR indicates adjustments for age, sex, race marital status, household income, any mood disorder, any anxiety disorder (excluding PTSD), any substance use disorder (excluding AUDs), and any personality disorder.

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