

July, 2013 Medline Topic Alert

1. Fam Syst Health. 2013 Jun;31(2):205-17. doi: 10.1037/a0032550.

Cancer-related traumatic stress reactions in siblings of children with cancer.

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The purpose of this study was to explore cancer-related posttraumatic stress (PTS) reactions in siblings of children with cancer including prevalence, common symptoms, comorbidity with anxiety and depression, and gender- and age-related patterns. A total of 125 children (63 girls) between the ages of 8 and 17 (M = 12.4; SD = 2.9 years) with a brother or sister with cancer, diagnosed 4 to 38 months prior to the study (M = 1.3 years; SD = 6.7 months), completed the Child PTSD Symptom Scale (CPSS), Revised Children's Manifest Anxiety Scale, and Child Depression Inventory-Short Form. Over half of the sample (60%) scored in the moderate to severe range for PTS and 22% fulfilled full criteria for PTSD based upon CPSS responses. Nearly 75% reported "Feeling upset when you think about or hear about the cancer," and "Trying not to think about, talk about, or have feelings about the cancer." Over 60% reported arousal symptoms. PTS symptoms reportedly interfered with functioning for 75% of the sample and co-occurred with anxiety and depressive symptoms. Gender and age-related patterns were not found. Siblings of children with cancer experience cancer-related PTS reactions and greater attention should be paid to ameliorating their cancer-related distress with empirically based treatments. (PsycINFO Database Record (c) 2013 APA, all rights reserved).

2. Stress. 2013 Jun 19. [Epub ahead of print]

Limbic brain responses in mothers with post-traumatic stress disorder and comorbid dissociation to video clips of their children.

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Abstract Maternal dissociative symptoms which can be comorbid with interpersonal violence-related post-traumatic stress disorder (IPV-PTSD) have been linked to

decreased sensitivity and responsiveness to children's emotional communication. This study examined the influence of dissociation on neural activation independently of IPV-PTSD symptom severity when mothers watch video-stimuli of their children during stressful and non-stressful mother-child interactions. Based on previous observations in related fields we hypothesized that more severe comorbid dissociation in IPV-PTSD would be associated with lower limbic system activation and greater neural activity in regions of the emotion regulation circuit such as the medial prefrontal cortex and dorsolateral prefrontal cortex (dlPFC). Twenty mothers (of children aged 12-42 months), with and without IPV-PTSD watched epochs showing their child during separation and play while undergoing functional magnetic resonance imaging (fMRI). Multiple regression indicated that when mothers diagnosed with IPV-PTSD watched their children during separation compared to play, dissociative symptom severity was indeed linked to lowered activation within the limbic system, while greater IPV-PTSD symptom severity was associated with heightened limbic activity. Concerning emotion regulation areas, there was activation associated to dissociation in the right dlPFC. Our results are likely a neural correlate of affected mothers' reduced capacity for sensitive responsiveness to their young child following exposure to interpersonal stress, situations that are common in day-to-day parenting.

3. J Child Psychol Psychiatry. 2013 Jun 3. doi: 10.1111/jcpp.12089. [Epub ahead of print]

Executive function in children and adolescents with posttraumatic stress disorder 4 and 12 months after the Sichuan earthquake in China.

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BACKGROUND: While several studies have found executive function deficits in adults and maltreated children with posttraumatic stress disorder (PTSD), there are few data on executive function in children and adolescents with PTSD related to natural disasters. The objective of this study was to test executive function changes over time in children and adolescents with PTSD after a magnitude 8.0 earthquake in Sichuan, China. **METHOD:** A sample of 34 children and adolescents with diagnosed PTSD following the Sichuan earthquake and 66 matched controls exposed to the same earthquake but without PTSD participated in the study. Executive function was assessed using a battery of interviewer-rated neuropsychological tests and the guardian-rated Behavior Rating Scale of Executive Function (BRIEF) at 4- and 12-month after the earthquake. **RESULTS:**

Children and adolescents with PTSD performed similar to controls in executive function at 4-months after the earthquake. Both groups improved significantly in similar domains of cognition during the following 8 months. The PTSD group exhibited daily deficits in emotional control compared with the controls at the 4-month assessment, but the differences disappeared during the following 8 months. **CONCLUSIONS:** Children and adolescents with PTSD related to a natural disaster have deficits only in the emotional control domain of executive function compared with controls exposed to the same disaster, but even these deficits did not persist.

4. Coll Antropol. 2013 Mar;37(1):11-6.

Trauma symptoms in pupils involved in school bullying--a cross sectional study conducted in Mostar, Bosnia and Herzegovina.

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To determine the association between involvement in school bullying and trauma symptoms and to find whether children with presence of trauma symptoms participate in school bullying more as victims, as bullies or as bully/victims. The study included 1055, 6th to 8th grade (12-14 years of age) elementary school pupils from the western part of Mostar, The pupils were self-interviewed using a Questionnaire on School Violence developed in 2003 and validated in Croatia, and Trauma Symptoms Check List for Children (TSCC). The pupils involved in the school violence, either as victims, bullies, bully/victims had significantly more trauma symptoms than the not involved. Involvement in school bullying as a bully/ victim was a strong indicator of trauma symptoms, particularly anxiety, anger, posttraumatic stress, dissociation, obvious dissociation, and dissociation fantasy symptoms, while the victims of school violence had the highest odds ratio for the development of depressive symptoms. There is strong association between bullying and trauma symptoms in young adolescents. From our results, emphasis should be placed at the regularly screening on bullying in praxis of family physicians and regularly conduction of preventive measures and early intervention in every primary school.

5. Nurs Clin North Am. 2013 Jun;48(2):229-39. doi: 10.1016/j.cnur.2013.01.005.

Psychosocial effects of disaster in children and adolescents: significance and management.

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This article provides a synthesis of the literature addressing the psychological and social effects on children and adolescents after disasters, and the factors that contribute to protecting this population from experiencing related symptoms. Clinical implications are presented for health care providers to reduce the possibility of long-term psychopathologies based on the National Commission on Children and Disasters 2010 Report.

6. Psychol Rep. 2013 Feb;112(1):60-71.

Measurement equivalence of seven selected items of posttraumatic growth between black and white adult survivors of Hurricane Katrina.

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This study examined the equivalence or comparability of the measurement properties of seven selected items measuring posttraumatic growth among self-identified Black (n = 270) and White (n = 707) adult survivors of Hurricane Katrina, using data from the Baseline Survey of the Hurricane Katrina Community Advisory Group Study. Internal consistency reliability was equally good for both groups (Cronbach's alphas = .79), as were correlations between individual scale items and their respective overall scale. Confirmatory factor analysis of a congeneric measurement model of seven selected items of posttraumatic growth showed adequate measures of fit for both groups. The results showed only small variation in magnitude of factor loadings and measurement errors between the two samples. Tests of measurement invariance showed mixed results, but overall indicated that factor loading, error variance, and factor variance were similar between the two samples. These seven selected items can be useful for future large-scale surveys of posttraumatic growth.

7. Am Surg. 2013 May;79(5):492-4.

Assessment of psychiatric symptoms at a level I trauma center surgery follow-up clinic: a preliminary report.

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At Level I trauma centers, psychiatric consultation is readily available to inpatient surgical services. This study sought to characterize the psychiatric symptoms present in the surgical follow-up clinic. Patients aged 18 years and older were assessed over one month for symptoms of posttraumatic stress disorder (PTSD) with the Short PTSD Rating Interview (SPRINT), depression with the Patient Health Questionnaire (PHQ-9), alcohol abuse with the Alcohol Use Disorder Identification Test (AUDIT), and the presence of violence using the MacArthur Community Violence Instrument (MCVla [victimization] MCVIb [perpetration]). Twenty-five individuals participated. Using the SPRINT, 13 (52.0%) met the cutoff for PTSD. For PHQ-9 depression, 11 (44%) were in the moderate to severe range. For AUDIT, five (20.0%) likely had an alcohol problem. Using the MCVI, 15 (60.0%) reported victimization and 12 (48.0%) reported perpetration. Elevated levels of psychiatric symptoms were found in the trauma surgery follow-up clinic. Psychiatric care embedded in this setting may be warranted.

8. AIDS Patient Care STDS. 2013 Mar;27(3):191-200.

Strategies and outcomes of HIV status disclosure in HIV-positive young women with abuse histories.

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Young women with HIV and histories of physical and/or sexual abuse in childhood may be vulnerable to difficulties with disclosure to sexual partners. Abuse in childhood is highly prevalent in HIV-positive women, and has been associated with poorer communication, low assertiveness, low self worth, and increased risk for sexual and other risk behaviors that increase the risk of secondary transmission of HIV. HIV disclosure may be an important link between abuse and sexual risk behaviors. Qualitative interviews with 40 HIV-positive young women with childhood physical and/or sexual abuse were conducted; some women had also experienced adult victimization. Results suggest that HIV-positive women with abuse histories use a host of strategies to deal with disclosure of HIV status, including delaying disclosure, assessing hypothetical responses of partners, and determining appropriate stages in a relationship to disclose. Stigma was an important theme related to disclosure. We discuss how these disclosure processes impact sexual behavior and relationships and discuss intervention opportunities based on our findings.

9. Proc Natl Acad Sci U S A. 2013 Apr 16;110(16):6589-94. doi: 10.1073/pnas.1219601110. Epub 2013 Apr 1.

Temporal association of elevated cholecystokinergic tone and adolescent trauma is critical for posttraumatic stress disorder-like behavior in adult mice.

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Adolescent trauma (AT) is a common risk factor for adult-onset posttraumatic stress disorder (PTSD). However, the vulnerability to AT among different individuals varies dramatically, indicating that other cofactors are important. Despite extensive studies, the identification of those cofactors has had little success. Here, we found that after subjected to traumatic stress at postnatal day 25 (P25), a stage that is comparable to the human adolescent period, inducible/reversible forebrain-specific cholecystokinin receptor-2 transgenic (IF-CCKR-2 tg) mice exhibited a significantly higher level of PTSD-like behavior at a later life (adult) stage compared with their wild-type littermates. Moreover, in these traumatized IF-CCKR-2 tg mice, both the glucocorticoid negative feedback inhibition and spatial learning and memory were impaired. Interestingly, if the CCKR-2 transgene was specifically suppressed during the time of AT exposure, these observations were largely diminished, indicating that a temporal association of the elevated CCKergic tone and AT is pathogenically critical. Treatment of traumatized IF-CCKR-2 tg mice with fluoxetine, a selective serotonin reuptake inhibitor, for a period of 4 wk significantly attenuated the PTSD-like behavior and the impaired glucocorticoid negative feedback inhibition, but not the memory deficit, implying that the memory deficit is an independent post-AT clinical entity and not a consequence of PTSD. Taken together, these results reveal a dynamic role of the CCKergic system in the development of post-AT psychopathologies and suggest that a timely antagonism of CCKR-2 activity during AT exposure is a potential preventive strategy for post-AT psychopathologies including PTSD and cognitive dysfunction.

10. BMC Public Health. 2013 Mar 15;13:226. doi: 10.1186/1471-2458-13-226.

"Young people, adult worries": RCT of an internet-based self-support method "Feel the ViBe" for children, adolescents and young adults exposed to family violence, a study protocol.

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BACKGROUND: Violence in families affects children. Exposure to violence is seen as child abuse. Figures show that about one third of children exposed to violence become victim or perpetrator in their adult life: known as intergenerational transmission. Violence also affects sexual and reproductive health. To prevent problems in adult life, children need help and support. However, while trying to protect their parents, children often do not seek help, or perceive the threshold as too high. Since almost all children of the current generation have access to the internet, an online intervention will make help better available for this target group. In 2011, an internet-based self-support method for children, adolescents and young adults exposed to family violence was developed in the Netherlands: "Feel the ViBe". The intervention was developed in close collaboration with the target group. This article describes the protocol of the RCT to study the effectiveness of this intervention.

METHODS/DESIGN: This study is a randomized controlled trial using the method of minimization to randomize the participants in two parallel groups with a 1:1 allocation ratio, being an intervention group, having access to "Feel the ViBe" and usual care (UC), and a control group, having access to minimally enhanced usual care (mEUC) followed by access to the intervention after twelve weeks. Outcomes are measured with questionnaires on PTSD symptoms, mental health and sexual and reproductive health. Routine Outcome Measurement (ROM) will be used to measure a direct effect of participating in the intervention. Data from a web evaluation questionnaire (WEQ), user statistics and qualitative analysis of online data will be used to support the findings. To compare results Cohen's d effect sizes will be used.

DISCUSSION: A RCT and process evaluation will test effectiveness and provide information of how the effects can be explained, how the intervention meets the expectation of participants and which possible barriers and facilitators for implementation exist. A qualitative analysis of the data will add information to interpret the quantitative data. This makes "Feel the ViBe" unique in its field.

TRIAL REGISTRATION: The Netherlands National Trial Register (NTR), trial ID NTR3692.

11. BMC Pediatr. 2013 Mar 1;13:31. doi: 10.1186/1471-2431-13-31.

CD64-Neutrophil expression and stress metabolic patterns in early sepsis and severe traumatic brain injury in children.

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BACKGROUND: Critical illness constitutes a serious derangement of metabolism. The aim of our study was to compare acute phase metabolic patterns in children with sepsis (S) or severe sepsis/septic shock (SS) to those with severe traumatic brain injury (TBI) and healthy controls (C) and to evaluate their relations to neutrophil, lymphocyte and monocyte expressions of CD64 and CD11b.

METHODS: Sixty children were enrolled in the study. Forty-five children with systemic inflammatory response syndrome (SIRS) were classified into three groups: TBI (n = 15), S (n = 15), and SS (n = 15). C consisted of 15 non-SIRS patients undergoing screening tests for minor elective surgery. Blood samples were collected within 6 hours after admission for flow cytometry of neutrophil, lymphocyte and monocyte expression of CD64 and CD11b (n = 60). Procalcitonin (PCT), C-reactive protein (CRP), glucose, triglycerides (TG), total cholesterol (TC), high (HDL) or low-density-lipoproteins (LDL) were also determined in all groups, and repeated on day 2 and 3 in the 3 SIRS groups (n = 150).

RESULTS: CRP, PCT and TG ($p < 0.01$) were significantly increased in S and SS compared to TBI and C; glucose did not differ among critically ill groups. Significantly lower were the levels of TC, LDL, and HDL in septic groups compared to C and to moderate changes in TBI ($p < 0.0001$) but only LDL differed between S and SS ($p < 0.02$). Among septic patients, PCT levels declined significantly ($p < 0.02$) with time, followed by parallel decrease of HDL ($p < 0.03$) and increase of TG ($p < 0.02$) in the SS group. Neutrophil CD64 (nCD64) expression was higher in patients with SS (81.2%) and S (78.8%) as compared to those with TBI (5.5%) or C (0.9%, $p < 0.0001$). nCD64 was positively related with CRP, PCT, glucose, and TG ($p < 0.01$) and negatively with TC, LDL, and HDL ($p < 0.0001$), but not with severity of illness, hematologic indices, length of stay or mechanical ventilation duration.

CONCLUSIONS: In sepsis, the early stress-metabolic pattern is characterized by a high (nCD64, glucose, TG) - low (TC, HDL, LDL) combination in contrast to the moderate pattern of TBI in which only glucose increases combined with a moderate cholesterol - lipoprotein decrease. These early metabolic patterns persist the first 3 days of acute illness and are associated with the acute phase CD64 expression on neutrophils.

12. Radiology. 2013 May;267(2):470-8. doi: 10.1148/radiol.13121593. Epub 2013 Jan 29.

Patterns of illness explaining the associations between posttraumatic stress disorder and the use of CT.

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PURPOSE: To examine the relationship between posttraumatic stress disorder (PTSD) and computed tomography (CT) utilization and to determine whether there were patterns of comorbid illness that could explain the relationship.

MATERIALS AND METHODS: The study was approved by the University of Iowa Institutional Review Board and the Iowa City Veterans Affairs Medical Center Research and Development Committee. By using a retrospective cohort design, a national sample of new veteran enrollees aged 18-35 years was studied.

Associations were examined between the presence of PTSD, receipt of at least one and multiple CT scans, comorbid medical conditions (eg, abdominal pain, headaches), and measures of health care utilization (eg, primary care, emergency room, and mental health visits) and the daily probability of the receipt of at least one CT scan before and after a diagnosis of PTSD. Analyses included sequential multivariable generalized linear mixed models to examine the independent relationship between PTSD and CT scan utilization.

RESULTS: Among the full cohort, 13.0% (10 018 of 76 812) received at least one CT scan. PTSD was identified in 21.1% (16 182 of 76 812) of the cohort, and 22.9% (3711 of 16 182) of veterans with PTSD received at least one CT scan as compared with 10.4% (6307 of 60 630) of veterans without PTSD ($P < .0001$). In sequential modeling, comorbid factors explaining the relationship between CT scans and PTSD were traumatic brain injury (odds ratio, 3.54; $P < .0001$), abdominal pain (odds ratio, 4.01; $P < .0001$), and headaches (odds ratio, 3.07; $P < .0001$).

Associations were also strong for high levels of emergency room (odds ratio, 2.73; $P < .0001$) and primary care (odds ratio, 2.38; $P < .0001$) utilization. The daily chance of receiving a CT scan was seven times higher prior to the recognition of PTSD (daily chance, 0.007 before vs 0.001 after; $P < .0001$).

CONCLUSION: Young veterans with PTSD are receiving more CT scans compared with those without PTSD; the daily probability of receiving CT scans is higher prior to recognition of PTSD. Supplemental material:

<http://radiology.rsna.org/lookup/suppl/doi:10.1148/radiol.13121593/-/DC1>.

13. BMC Psychiatry. 2013 Jan 29;13:40. doi: 10.1186/1471-244X-13-40.

Posttraumatic stress disorder is associated with an enhanced spontaneous production of pro-inflammatory cytokines by peripheral blood mononuclear cells.

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BACKGROUND: Posttraumatic stress disorder (PTSD) is associated with an enhanced risk for cardiovascular and other inflammatory diseases. Chronic low-level inflammation has been suggested as a potential mechanism linking these conditions.

METHODS: We investigated plasma cytokine levels as well as spontaneous and lipopolysaccharide (LPS)-stimulated cytokine production by peripheral blood mononuclear cells (PBMCs) in a group of 35 severely traumatized PTSD patients compared to 25 healthy controls.

RESULTS: Spontaneous production of interleukin (IL)-1 β , IL-6 and tumor necrosis factor (TNF)- α by isolated PBMCs was significantly higher in the PTSD compared to the control group and even correlated with PTSD symptom severity within the PTSD group. In contrast, circulating plasma levels of pro- and anti-inflammatory cytokines such as IL-6, IL-8, IL-10, TNF- α , or monocyte chemoattractant protein (MCP)-1 were not significantly altered in PTSD patients compared to healthy controls.

CONCLUSIONS: Our findings indicate that PBMCs of PTSD patients are already pre-activated in vivo, providing further evidence for low-grade inflammation in PTSD. This might possibly represent one psychobiological pathway from PTSD to poor physical health.

14. Behav Ther. 2013 Mar;44(1):152-61. doi: 10.1016/j.beth.2012.09.003. Epub 2012 Sep 28.

Emotion regulation difficulties, low social support, and interpersonal violence mediate the link between childhood abuse and posttraumatic stress symptoms.

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We examined how difficulties with emotion regulation, social support, and interpersonal violence in adult relationships mediated the relationship between childhood abuse and post traumatic symptoms (PTS) in adults. We fit a multiple mediation model to data from 139 socio-economically disadvantaged women (85% African American) of whom 44% endorsed moderate to severe levels of childhood physical, sexual, or emotional abuse and 12% screened positive for probable posttraumatic stress disorder (PTSD). The model accounted for 63% of the variance in adult PTS symptoms. Child abuse exerted a direct effect on PTS symptoms and indirect effects through difficulties with emotion regulation, lower social support, and greater exposure to adult interpersonal violence. Implications of findings for the treatment of individuals at high risk of having experienced childhood abuse and PTS are discussed.

15. Curr Psychiatry Rep. 2013 Feb;15(2):340. doi: 10.1007/s11920-012-0340-5.

Assessment and management of pediatric iatrogenic medical trauma.

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Medically ill children are often exposed to traumatizing situations within the medical setting. Approximately 25-30 % of medically ill children develop posttraumatic stress symptoms and 10-20 % of them meet criteria for posttraumatic stress disorder. Parents of medically ill children are at even higher risk for posttraumatic stress symptoms. Most children and parents will experience resolution of mild trauma symptoms without formal psychological or psychiatric treatment. Posttraumatic stress symptoms are associated with medical nonadherence, psychiatric co-morbidities, and poorer health status. Therefore, evidenced-based trauma-focused treatment is indicated for those who remain highly distressed or impaired. This paper reviews approaches to the assessment and management of pediatric iatrogenic medical trauma within a family-based framework.

16. Psychosom Med. 2013 Jan;75(1):68-75. doi: 10.1097/PSM.0b013e3182761e8b.

Exploration of delayed-onset posttraumatic stress disorder after severe injury.

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OBJECTIVE: The first aim of this work was to conduct a rigorous longitudinal study to identify rates of delayed-onset posttraumatic stress disorder (PTSD) in a sample of patients with severe injury. The second aim was to determine what variables differentiated delayed-onset PTSD from chronic PTSD.

METHODS: Randomly selected patients with injury who were admitted to four hospitals around Australia were recruited to the study (N = 834) and assessed in the acute care hospital, at 3 months, and at 12 months. A structured clinical interview was used to assess PTSD at each time point.

RESULTS: Seventy-three patients (9%; n = 73) had PTSD at 12 months. Of these, 39 (53%) were classified as having delayed-onset PTSD. Furthermore, 22 (56%) patients with delayed-onset PTSD had minimal PTSD symptoms at 3 months (i.e.,

they did not have partial/subsyndromal PTSD at 3 months). The variables that differentiated delayed-onset PTSD from chronic PTSD were greater injury severity (odds ratio [OR] = 1.13; 95% confidence interval [CI] = 1.02-1.26), lower anxiety severity at 3 months (OR = 0.73; 95% CI = 0.61-0.87), and greater pain severity at 3 months (OR = 1.39; 95% CI = 1.06-1.84).

CONCLUSIONS: Delayed-onset PTSD occurred frequently in this sample. Approximately half of the patients with delayed-onset PTSD had minimal PTSD symptoms at 3 months; therefore, their delayed-onset PTSD could not be accounted for by a small number of fluctuating symptoms. As we move toward DSM-V, it is important that research continues to explore the factors that underpin the development of delayed-onset PTSD.

17. BMC Psychiatry. 2013 Jan 3;13:3. doi: 10.1186/1471-244X-13-3.

Developmental trauma disorder: pros and cons of including formal criteria in the psychiatric diagnostic systems.

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BACKGROUND: This article reviews the current debate on developmental trauma disorder (DTD) with respect to formalizing its diagnostic criteria. Victims of abuse, neglect, and maltreatment in childhood often develop a wide range of age-dependent psychopathologies with various mental comorbidities. The supporters of a formal DTD diagnosis argue that post-traumatic stress disorder (PTSD) does not cover all consequences of severe and complex traumatization in childhood.

DISCUSSION: Traumatized individuals are difficult to treat, but clinical experience has shown that they tend to benefit from specific trauma therapy. A main argument against inclusion of formal DTD criteria into existing diagnostic systems is that emphasis on the etiology of the disorder might force current diagnostic systems to deviate from their purely descriptive nature. Furthermore, comorbidities and biological aspects of the disorder may be underdiagnosed using the DTD criteria.

SUMMARY: Here, we discuss arguments for and against the proposal of DTD criteria and address implications and consequences for the clinical practice.

18. J Sex Marital Ther. 2013;39(2):176-92. doi: 10.1080/0092623X.2012.691950.

The mediating effect of daily stress on the sexual arousal function of women with a history of childhood sexual abuse.

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Comment in

J Sex Marital Ther. 2013;39(4):300-2.

Psychopathologies such as posttraumatic stress disorder are often proposed as mediators of the sexual arousal dysfunction experienced by women with a history of childhood maltreatment. However, posttraumatic stress disorder symptoms are only part of the difficulties experienced by these women. Other factors to consider include negative affectivity and perceived daily stress. To assess the mediating role of posttraumatic stress disorder symptoms, negative affectivity, and perceived daily stress, we collected data from 62 women with and without a history of childhood maltreatment (sexual, physical and emotional abuse). A comprehensive assessment of sexual arousal functioning and sexual responses was obtained using self-reported measures and psychophysiological measures of vaginal engorgement and subjective sexual arousal during exposure to sexual visual stimuli. The model assessed the simultaneous mediating effect of posttraumatic stress disorder symptoms, negative affectivity and perceived daily stress on the relation between childhood maltreatment and sexual variables. Daily stress, showed a significant and stronger mediation effect on sexual arousal functioning as compared to posttraumatic stress disorder and negative affectivity. These findings suggest that daily stress may be an important mechanism to consider when treating sexual arousal functioning in women who have a history of childhood maltreatment.

19. Dev Neurorehabil. 2013;16(1):73-7. doi: 10.3109/17518423.2012.700651.

Direct and collateral effects of staff-worn protective equipment on injury prevention from child aggression.

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OBJECTIVE: The present study measured arm and other body injuries to classroom staff that were caused by a student who had developmental disabilities and treatment-resistant aggression.

METHODS: Following a baseline (no equipment) phase, staff wore protective equipment on their arms but not on other areas of their body.

RESULTS: The frequency of self-reported arm injuries increased with protective equipment, but injury severity decreased. Wearing the protective equipment was also associated with more injuries to other areas of the body.

CONCLUSIONS: Staff-worn protective equipment may reduce the severity but not the frequency of staff injuries from aggression; as well, the presence of protective equipment may set the occasion for increased injuries to non-protected areas of the body.

20. J Am Acad Psychiatry Law. 2012;40(4):522-9.

Civilian PTSD symptoms and risk for involvement in the criminal justice system.

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Posttraumatic stress disorder (PTSD) has received considerable attention with regard to the ongoing wars in Iraq and Afghanistan. In studies of veterans, behavioral sequelae of PTSD can include hostile and violent behavior. Rates of PTSD found in impoverished, high-risk urban populations within U.S. inner cities are as high as in returning veterans. The objective of this study was to determine whether civilian PTSD is associated with increased risk of incarceration and charges related to violence in a low-income, urban population. Participants (n = 4,113) recruited from Grady Memorial Hospital in Atlanta, Georgia, completed self-report measures assessing history of trauma, PTSD symptoms, and incarceration. Both trauma exposure and civilian PTSD remained strongly associated with increased risk of involvement in the criminal justice system and charges of a violent offense, even after adjustment for sex, age, race, education, employment, income, and substance abuse in a regression model. Trauma and PTSD have important implications for public safety and recidivism.

21. J Am Acad Psychiatry Law. 2012;40(4):509-21.

PTSD as a criminal defense: a review of case law.

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Posttraumatic stress disorder (PTSD) has been offered as a basis for criminal defenses, including insanity, unconsciousness, self-defense, diminished capacity, and sentencing mitigation. Examination of case law (e.g., appellate decisions) involving PTSD reveals that when offered as a criminal defense, PTSD has received mixed treatment in the judicial system. Courts have often recognized testimony about PTSD as scientifically reliable. In addition, PTSD has been recognized by

appellate courts in U.S. jurisdictions as a valid basis for insanity, unconsciousness, and self-defense. However, the courts have not always found the presentation of PTSD testimony to be relevant, admissible, or compelling in such cases, particularly when expert testimony failed to show how PTSD met the standard for the given defense. In cases that did not meet the standard for one of the complete defenses, PTSD has been presented as a partial defense or mitigating circumstance, again with mixed success.

22. J Trauma Stress. 2012 Dec;25(6):682-90. doi: 10.1002/jts.21749.

Trauma history and psychopathology in war-affected refugee children referred for trauma-related mental health services in the United States.

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There is an increasing need to deliver effective mental health services to refugee children and adolescents across the United States; however, the evidence base needed to guide the design and delivery of services is nascent. We investigated the trauma history profiles, psychopathology, and associated behavioral and functional indicators among war-affected refugee children presenting for psychological treatment. From the National Child Traumatic Stress Network's Core Data Set, 60 war-affected refugee children were identified (51.7% males, mean age = 13.1 years, SD = 4.13). Clinical assessments indicated high rates of probable posttraumatic stress disorder (30.4%), generalized anxiety (26.8%), somatization (26.8%), traumatic grief (21.4%), and general behavioral problems (21.4%). Exposure to war or political violence frequently co-occurred with forced displacement; traumatic loss; bereavement or separation; exposure to community violence; and exposure to domestic violence. Academic problems and behavioral difficulties were prevalent (53.6% and 44.6%, respectively); however, criminal activity, alcohol/drug use, and self-harm were rare (all < 5.45%). These findings highlight the complex trauma profiles, comorbid conditions, and functional problems that are important to consider in providing mental health interventions for refugee children and adolescents. Given the difficulties associated with access to mental health services for refugees, both preventive and community-based interventions within family, school, and peer systems hold particular promise.

23. J Trauma Stress. 2012 Dec;25(6):607-15. doi: 10.1002/jts.21759.

Impact of evidence-based standardized assessment on the disability clinical interview for diagnosis of service-connected PTSD: a cluster-randomized trial.

Speroff T, Sinnott PL, Marx B, Owen RR, Jackson JC, Greevy R, Sayer N, Murdoch M, Shane AC, Smith J, Alvarez J, Nwosu SK, Keane T, Weathers F, Schnurr PP, Friedman MJ.

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Posttraumatic stress disorder (PTSD) is one of the fastest growing compensated medical conditions. The present study compared usual disability examiner practices for PTSD with a standardized assessment that incorporates evidence-based assessments. The design was a multicenter, cluster randomized, parallel-group study involving 33 clinical examiners and 384 veterans at 6 Veterans Affairs medical centers. The standardized group incorporated the Clinician Administered PTSD Scale and the World Health Organization Disability Assessment Schedule-II into their assessment interview. The main outcome measures were completeness and accuracy of PTSD diagnosis and completeness of functional assessment. The standardized assessments were 85% complete for diagnosis compared to 30% for nonstandardized assessments ($p < .001$), and, for functional impairment, 76% versus 3% ($p < .001$). The findings demonstrate that the quality of PTSD disability examination would be improved by using evidence-based assessment.

24. Accid Anal Prev. 2013 Jan;50:92-102. doi: 10.1016/j.aap.2012.03.037. Epub 2012 May 2.

Outcomes one year after a road accident: Results from the ESPARR cohort.

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OBJECTIVE: Reducing the rates of death, trauma and sequelae associated with road accidents is the prime goal of road safety authorities, and success requires having data on victims' outcomes in the long term. The present study examined the outcome of adult road accident victims one year after their accident.

DESIGN: A follow-up study.

METHODS: The cohort comprised 886 injured road-accident victims, aged ≥ 16 years, and living in the Rhône administrative Département, France (taken from the ESPARR Cohort). Data were collected on victim characteristics at the time of crash, and self-reported outcomes one year later. The population of respondents at the

one-year questionnaire follow-up was divided into two categories according to injury severity, as mild-to-moderate (M.AIS<3) or severe (M.AIS 3+). Qualitative variables were compared between these 2 groups using Chi(2) or Fisher exact tests.

RESULTS: At one year post-accident, 45% of the mild-to-moderate injury group versus only 20% of severely injured subjects reported full recovery of health ($p<0.001$). 20% of the cohort, as a whole, reported permanent pain. More than half of the severely injured subjects reported that the accident had had an impact on the everyday life of their family; this was twice as many as in the mild-to-moderate injury group (55% vs. 22%). Most of the severely injured reported impact on leisure, projects and emotional life: 20% reported relational difficulties in the couple, 16% reported impaired sexual life, and the rate of separation was significantly higher than in the mild-to-moderate injury group (5% vs. 1%; $p<0.001$). Mean time off work was significantly longer in the severe injury group: 245 ± 158 days vs. 75 ± 104 days ($p<0.001$); and 32% of the severe injury group ($p<0.001$) who had stopped work had not returned at 1 year, compared to 5% of the mild-to-moderate injury group.

CONCLUSIONS: One year after a road accident, the consequences for victims remain significant. In terms of physical impact, pain frequently persists, impairing daily life for many. There is an elevated rate of chronic PTSD (post-traumatic stress disorder) and a non-negligible impact on affective and occupational life.

25. J Psychiatr Res. 2013 Feb;47(2):215-25. doi: 10.1016/j.jpsychires.2012.10.008. Epub 2012 Nov 24.

In the shadow of terror: posttraumatic stress and psychiatric co-morbidity following bombing in Iraq: the role of shattered world assumptions and altered self-capacities.

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Whilst research has looked at posttraumatic stress disorder (PTSD) and psychiatric co-morbidity among civilians exposed to bombing, there is a lack of longitudinal data on the development of these outcomes and the psychological factors associated with them, particularly among Iraqi civilians. This study aimed to: investigate 1) the trajectory of PTSD and psychiatric co-morbidity following bombing among civilians in Iraq and 2) the link between shattered world assumptions, altered self-capacities and identified health outcomes. One hundred and eighty (F = 90, M = 90) Iraqi civilians exposed to first time bombing were recruited approximately one month (time 1) after the bombing and five months

(time 2) after the baseline assessment. A control group data (178, F = 91, M = 87) from people who were not exposed to bombing was also collected. They completed the Posttraumatic Stress Diagnostic Scale, the General Health Questionnaire-28, the World Assumptions Questionnaire and the Inventory of Altered Self-Capacities. The results showed that there was a significant decline in the proportion of people meeting the screening criteria for PTSD and psychiatric co-morbidity symptoms over time. For the cross-sectional analysis, controlling for demographic variables, regression analysis showed that severity of the bombing ($\beta = .16$), controllability of events ($\beta = -.21$), safety and vulnerability ($\beta = .31$) and affect dysregulation ($\beta = .37$) significantly predicted PTSD time 1. Controllability of events ($\beta = -.20$) and affect dysregulation ($\beta = .37$) also predicted psychiatric co-morbidity at time 1. For the prospective analysis, controlling for PTSD and psychiatric co-morbidity at time 1, none of these dimensions predicted PTSD and psychiatric co-morbidity at time 2. Findings are discussed in terms of individual resilience. It can be concluded that following bombing, civilians developed PTSD and psychiatric co-morbidity which declined over time. Civilians' perceptions of their ability to control events in the world and regulate their affect had a short term impact on the severity of these symptoms.

26. J Trauma Stress. 2012 Dec;25(6):705-12. doi: 10.1002/jts.21763. Epub 2012 Nov 26. Onset of posttraumatic stress disorder and major depression among refugees and voluntary migrants to the United States.

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Although refugees are generally thought to be at increased risk for posttraumatic stress disorder (PTSD) and major depressive episode (MDE), few studies have compared onset of PTSD and MDE between refugees and voluntary migrants. Given differences in migration histories, onset should differ pre- and postmigration. The National Latino and Asian American Survey (NLAAS) is a national representative, complex dataset measuring psychiatric morbidity, mental health service use, and migration history among Latino and Asian immigrants to the United States. Of the 3,260 foreign-born participants, 660 were refugees (a weighted proportion of 9.52%). Refugees were more likely to report a history of war-related trauma, but reports of other traumatic events were similar. Premigration onset of PTSD was statistically higher for refugees than voluntary migrants, odds ratio (OR) = 4.86, 95% confidence interval (CI) [2.01, 11.76], where postmigration onset for PTSD was not, OR = 0.61, 95% CI [0.29, 1.28]; a

similar pattern was found for MDE, OR = 1.98, 95% CI [1.11, 3.51]; and OR = 1.02, 95% CI [0.65, 1.62], respectively. Although refugees arrive in host countries with more pressing psychiatric needs, onset is comparable over time, suggesting that postmigration refugees and voluntary migrants may be best served by similar programs.

27. Brain Cogn. 2013 Feb;81(1):52-6. doi: 10.1016/j.bandc.2012.10.003. Epub 2012 Nov 20.

Bilateral saccadic eye movements and tactile stimulation, but not auditory stimulation, enhance memory retrieval.

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Recent research has shown superior memory retrieval when participants make a series of horizontal saccadic eye movements between the memory encoding phase and the retrieval phase compared to participants who do not move their eyes or move their eyes vertically. It has been hypothesized that the rapidly alternating activation of the two hemispheres that is associated with the series of left-right eye movements is critical in causing the enhanced retrieval. This hypothesis predicts a beneficial effect on retrieval of alternating left-right stimulation not only of the visuomotor system, but also of the somatosensory system, both of which have a strict contralateral organization. In contrast, this hypothesis does not predict an effect, or a weaker effect, on retrieval of alternating left-right stimulation of the auditory system, which has a much less lateralized organization. Consistent with these predictions, we replicated the horizontal saccade-induced retrieval enhancement (Experiment 1) and showed that a similar retrieval enhancement occurs after alternating left-right tactile stimulation (Experiment 2). Furthermore, retrieval was not enhanced after alternating left-right auditory stimulation compared to simultaneous bilateral auditory stimulation (Experiment 3). We discuss the possibility that alternating bilateral activation of the left and right hemispheres exerts its effects on memory by increasing the functional connectivity between the two hemispheres. We also discuss the findings in the context of clinical practice, in which bilateral eye movements (EMDR) and auditory stimulation are used in the treatment of post-traumatic stress disorder.

28. J Trauma Stress. 2012 Dec;25(6):691-9. doi: 10.1002/jts.21751. Epub 2012 Nov 5.

A test of adolescent internalizing and externalizing symptoms as prospective predictors of type of trauma exposure and posttraumatic stress disorder.

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The present study utilized longitudinal data from a high-risk community sample (N = 377; 166 trauma-exposed; 202 males; 175 females; 73% non-Hispanic Caucasian) to test pretrauma measures of adolescent internalizing and externalizing symptoms as unique prospective predictors of type of trauma exposure and PTSD over and above the influence of correlated family adversity (a composite of family conflict, stress, and parental psychopathology). Data were analyzed with logistic and multinomial logistic regressions. Results indicated that females, but not males, with higher levels of internalizing (OR = 2.91) and externalizing (OR = 2.37) symptoms during adolescence were significantly more likely to be exposed to assaultive violence (over and above family adversity). In fact, males with higher levels of internalizing symptoms were significantly less likely to be exposed to assaultive violence (OR = 0.54). Neither internalizing nor externalizing symptoms uniquely predicted exposure to traumatic events that did not involve assaultive violence. Among trauma-exposed participants, the unique association between internalizing symptoms and later PTSD yielded an odds ratio of 1.79 ($p = .07$) over and above the influences of family adversity, type of trauma exposure, and gender. Assaultive violence exposure fully mediated the association between females' externalizing symptoms and future PTSD. Findings may help inform the prevention of both assaultive violence exposure and PTSD.

29. J Psychiatr Res. 2013 Feb;47(2):155-61. doi: 10.1016/j.jpsychires.2012.10.002. Epub 2012 Oct 24.

Lifetime history of traumatic events in an American Indian community sample: heritability and relation to substance dependence, affective disorder, conduct disorder and PTSD.

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American Indians appear to experience a higher rate of traumatic events than what has been reported in general population surveys. American Indians also suffer higher alcohol related death rates than any other ethnic group in the U.S. population. Therefore efforts to delineate factors which may uniquely contribute to increased likelihood of trauma, post traumatic stress disorder (PTSD), and substance use disorders (SUD) over the lifetime in American Indians are important

because of the high burden of morbidity and mortality that they pose to American Indian communities. Participants were American Indians recruited from reservations that were assessed with the Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA), family history assessment and the stressful-life-events scale. Of the 309 participants, equivalent numbers of men and women (94%) reported experiencing traumas; however, a larger proportion of women received a PTSD diagnosis (38%) than men (29%). Having experienced multiple trauma and sexual abuse were most highly associated with PTSD. Having experienced assaultive trauma and having PTSD symptoms were both found to be moderately heritable (30-50%). Logistic regression revealed that having an anxiety and/or affective disorder and having a substance dependent diagnosis, but not having antisocial personality disorder/conduct disorder, were significantly correlated with having a diagnosis of PTSD. These studies suggest that trauma is highly prevalent in this American Indian community, it is heritable, is associated with PTSD, affective/anxiety disorders and substance dependence. Additionally, trauma, PTSD and substance dependence appear to all co-emerge in early adulthood in this high-risk population.

30. Arch Womens Ment Health. 2013 Feb;16(1):29-38. doi: 10.1007/s00737-012-0312-0. Epub 2012 Oct 12.

Mother-infant bonding impairment across the first 6 months postpartum: the primacy of psychopathology in women with childhood abuse and neglect histories.

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Our goal was to examine the trajectory of bonding impairment across the first 6 months postpartum in the context of maternal risk, including maternal history of childhood abuse and neglect and postpartum psychopathology, and to test the association between self-reported bonding impairment and observed positive parenting behaviors. In a sample of women with childhood abuse and neglect histories (CA+, n = 97) and a healthy control comparison group (CA-, n = 53), participants completed questionnaires related to bonding with their infants at 6 weeks, 4 months, and 6 months postpartum and psychopathology at 6 months postpartum. In addition, during a 6-month postpartum home visit, mothers and infants participated in a dyadic play interaction subsequently coded for positive parenting behaviors by blinded coders. We found that all women, independent of risk status, increased in bonding with their infant over the first 6 months postpartum; however, women with postpartum psychopathology (depression and posttraumatic stress disorder [PTSD]) showed consistently greater bonding

impairment scores at all timepoints. Moreover, we found that, at the 6-month assessment, bonding impairment and observed parenting behaviors were significantly associated. These results highlight the adverse effects of maternal postpartum depression and PTSD on mother-infant bonding in early postpartum in women with child abuse and neglect histories. These findings also shed light on the critical need for early detection and effective treatment of postpartum mental illness in order to prevent problematic parenting and the development of disturbed mother-infant relationships. Results support the use of the Postpartum Bonding Questionnaire as a tool to assess parenting quality by its demonstrated association with observed parenting behaviors.

31. J Adolesc. 2013 Feb;36(1):21-30. doi: 10.1016/j.adolescence.2012.09.003. Epub 2012 Oct 10.

The contribution of personal and exposure characteristics to the adjustment of adolescents following war.

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The study examined the unique contribution of both personal characteristics and several types of exposure variables to the adjustment of Israeli adolescents following the Second Lebanon War. Two thousand three hundred and fourteen adolescents, who lived in areas that were the target of multiple missile attacks, completed self-report questionnaires assessing personal characteristics of gender and early traumatic events, subjective exposure (i.e., measures of fear and shortage of basic necessities during the war), objective exposure (i.e., exposure to missile attacks, knowing someone who was wounded or killed) and media exposure. Fifteen percent of the adolescents reported moderate or severe post-traumatic symptoms. Girls and adolescents who experienced earlier traumatic events were at higher risk for distress. While the level of direct exposure contributed to greater distress, the contribution of subjective exposure was significantly stronger. The discussion deals with the unique contribution of both subjective and objective characteristics to post-war adjustment.

32. J Abnorm Child Psychol. 2013 Feb;41(2):339-53. doi: 10.1007/s10802-012-9677-9.

Prospective risk factors for adolescent PTSD: sources of differential exposure and differential vulnerability.

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There are two types of risk factors for developing PTSD: factors that increase the likelihood of experiencing a potentially traumatizing event and factors that increase the likelihood of developing symptoms following such events. Using prospective data over a two-year period from a large, diverse sample of urban adolescents ($n = 1242$, Mean age = 13.5), the current study differentiates these two sources of risk for developing PTSD in response to violence exposure. Five domains of potential risk and protective factors were examined: community context (e.g., neighborhood poverty), family risk (e.g., family conflict), behavioral maladjustment (e.g., internalizing symptoms), cognitive vulnerabilities (e.g., low IQ), and interpersonal problems (e.g., low social support). Time 1 interpersonal violence history, externalizing behaviors, and association with deviant peers were the best predictors of subsequent violence, but did not further increase the likelihood of PTSD in response to violence. Race/ethnicity, thought disorder symptoms, and social problems were distinctly predictive of the development of PTSD following violence exposure. Among youth exposed to violence, Time 1 risk factors did not predict specific event features associated with elevated PTSD rates (e.g., parent as perpetrator), nor did interactions between Time 1 factors and event features add significantly to the prediction of PTSD diagnosis. Findings highlight areas for refinement in adolescent PTSD symptom measures and conceptualization, and provide direction for more targeted prevention and intervention efforts.

33. Arch Womens Ment Health. 2013 Feb;16(1):1-10. doi: 10.1007/s00737-012-0301-3. Epub 2012 Sep 1.

The impact of subjective birth experiences on post-traumatic stress symptoms: a longitudinal study.

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The aim of this prospective study was to examine the etiology of post-traumatic stress symptoms following childbirth within a transactional framework of stress. Participants were women ($N = 1,499$) from the Akershus Birth Cohort. These women were followed from pregnancy to 8 weeks postpartum. We modeled predisposing factors (e.g., fear of childbirth) and precipitating factors (subjective and objective birth experiences) as predictors of post-traumatic stress symptoms. Post-traumatic stress symptoms were measured by means of the Impact of Event

Scale, objective birth experiences by means of birth journals, and subjective birth experiences by means of three questions. A structural equation model showed that subjective birth experiences had the highest association with post-traumatic stress symptoms. Moreover, they mediated the effect of predisposing factors and objective birth experiences. The results suggest that women's subjective birth experiences are the most important factor in the development of post-traumatic stress symptoms following childbirth.

34. J Interpers Violence. 2013 Feb;28(3):558-76. doi: 10.1177/0886260512455511. Epub 2012 Aug 27.

Posttraumatic stress disorder symptoms: a mechanism in the relationship between early sexual victimization and incapacitated/drug-or-alcohol-facilitated and forcible rape.

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Sexual assault occurring when the victim is unable to consent or resist due to the use or administration of alcohol or drugs (i.e., incapacitated/drug-or-alcohol facilitated rape; IR/DAFR) is a particularly prevalent form of victimization experienced by college women. By definition, substance use precedes IR/DAFR; however, few studies have examined other potential risk factors for IR/DAFR that may be unique from those associated with forcible rape (FR; i.e., sexual assault occurring due to threats or physical restraint). The present investigation tested a model of risk for IR/DAFR and FR suggesting that child or adolescent sexual abuse (CASA) leads to posttraumatic stress disorder (PTSD) symptoms, which in turn increase the likelihood of IR/DAFR, but not FR. Results revealed full mediation for PTSD hyperarousal symptoms in the pathway between CASA and IR/DAFR, and partial mediation for hyperarousal symptoms in the pathway between CASA and FR. Theoretical and clinical implications are discussed.

35. Psychopathology. 2013;46(2):120-30. doi: 10.1159/000339459. Epub 2012 Aug 21.

Acute stress reactions and associated factors in the help-seekers after the L'Aquila earthquake.

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BACKGROUND: The assessment of acute stress reactions and psychiatric symptomatology shortly after the occurrence of a traumatic catastrophic event, like an earthquake, is essential for implementing relief activities and for the identification of the long-term aftermath. The aim of our study was to assess the psychological distress and the occurrence of acute stress disorder (ASD) among individuals seeking help at the General Hospital Psychiatric Unit at San Salvatore Hospital following the earthquake at L'Aquila. Factors (sociodemographic, coping strategies, event-related and postevent variables) associated with the acute stress reactions were also assessed.

METHODS: For the first 4 weeks following the earthquake, 122 help-seekers were assessed with a checklist of traumatic-event-related variables. Measurement instruments included the Stanford Acute Stress Reaction Questionnaire (SASRQ) for the detection of ASD according to DSM-IV criteria, the 12-item General Health Questionnaire (GHQ-12) for assessing psychological distress, and the Brief Cope questionnaire for assessing coping strategies.

RESULTS: Despite the high level of psychological distress (GHQ-12 ≥ 20 , cut-off value) found in 65.6% of the subjects, only 6 subjects (4.9%) could be considered affected by 'full' ASD, whereas 48 subjects (39.3%) could be considered affected by 'partial' ASD, which is defined as showing at least one symptom on each DSM-IV criterion as evidenced by scoring higher than 3 on each SASRQ scale. The strongest predictor of traumatic stress reactions among all the predictor variables included in our study was having been trapped/injured under rubble during the earthquake, and among earthquake stressors (explaining 20% of variance in our model), a weaker predictor was the loss of personal privacy because of home displacement. In our model, more variance (39%) was explained when individual psychopathological variables and coping styles were also included as predictors. Showing coping strategies as exhibiting 'behavioural disengagement' or 'requesting emotional support from others' were found to increase the likelihood of a positive estimate of being an 'ASD case', while the adoption of an 'acceptance' coping style seemed to reduce the likelihood of the positive estimate of being an 'ASD case'.

CONCLUSIONS: This study underlines the importance of identifying ASD subsyndromal cases and taking appropriate intervention/prevention measures that focus on giving psychological support to individuals trapped/injured under rubble, showing a low acceptance of reality. A relevant underestimated source of distress was the dislocation in large accommodation settings (such as large tent camps) in which individuals lack privacy.

36. Psychol Med. 2013 Feb;43(2):381-90. doi: 10.1017/S0033291712001195. Epub 2012 Jun 18.

Influence of predispositions on post-traumatic stress disorder: does it vary by trauma severity?

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BACKGROUND: Only a minority of trauma victims (<10%) develops post-traumatic stress disorder (PTSD), suggesting that victims vary in predispositions to the PTSD response to traumas. It is assumed that the influence of predispositions is inversely related to trauma severity: when trauma is extreme predispositions are assumed to play a secondary role. This assumption has not been tested. We estimate the influence of key predispositions on PTSD induced by an extreme trauma - associated with a high percentage of PTSD - (sexual assault), relative to events of lower magnitude (accidents, disaster, and unexpected death of someone close).

METHOD: The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) is representative of the adult population of the USA. A total of 34 653 respondents completed the second wave in which lifetime PTSD was assessed. We conducted three series of multinomial logistic regressions, comparing the influence of six predispositions on the PTSD effect of sexual assault with each comparison event. Three pre-existing disorders and three parental history variables were examined.

RESULTS: Predispositions predicted elevated PTSD risk among victims of sexual assault as they did among victims of comparison events. We detected no evidence that the influence of predispositions on PTSD risk was significantly lower when the event was sexual assault, relative to accidents, disasters and unexpected death of someone close.

CONCLUSIONS: Important predispositions increase the risk of PTSD following sexual assault as much as they do following accidents, disaster, and unexpected death of someone close. Research on other predispositions and alternative classifications of event severity would be illuminating.

37. J Head Trauma Rehabil. 2013 Jan-Feb;28(1):59-67. doi: 10.1097/HTR.0b013e3182596382.

Postconcussive symptom reporting among US combat veterans with mild traumatic brain injury from Operation Iraqi Freedom.

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OBJECTIVE: To examine the association between postconcussive symptoms and mild traumatic brain injury (MTBI) among combat veterans while adjusting for posttraumatic stress disorder (PTSD) and depression.

PATIENTS: Military personnel with provider-diagnosed MTBI (n = 334) or nonhead injury (n = 658) were identified from the Expeditionary Medical Encounter Database.

MAIN OUTCOME MEASURES: Post-Deployment Health Assessments and Re-Assessments were used to examine postconcussive symptoms and self-rated health.

RESULTS: Personnel with MTBI were more likely to report headache (odds ratio [OR] = 3.37; 95% confidence interval [CI] = 2.19-5.17), back pain (OR = 1.79; 95% CI = 1.23-2.60), memory problems (OR = 1.86; 95% CI = 1.20-2.88), tinnitus (OR = 1.63; 95% CI = 1.10-2.41), and dizziness (OR = 2.13; 95% CI = 1.06-4.29) compared with those with non-head injuries. Among those with MTBI, self-reported decline in health was associated with memory problems (OR = 5.07; 95% CI = 2.56-10.02) and dizziness (OR = 10.60; 95% CI = 3.48-32.27).

CONCLUSIONS: Mild traumatic brain injury is associated with reports of negative health consequences among combat veterans even when accounting for co-occurring psychological morbidity. The identification of postconcussive symptoms related to declines in a service member's self-rated health may be important in targeting and prioritizing clinical interventions.

38. Soc Psychiatry Psychiatr Epidemiol. 2013 Feb;48(2):265-74. doi: 10.1007/s00127-012-0531-8. Epub 2012 Jun 9.

Stress and development of depression and heavy drinking in adulthood: moderating effects of childhood trauma.

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PURPOSE: Studies suggest that childhood trauma is linked to both depression and heavy drinking in adulthood, and may create a lifelong vulnerability to stress. Few studies have explored the effects of stress sensitization on the development of depression or heavy drinking among those who have experienced traumatic childhood events. This study aimed to determine the effect of childhood trauma on the odds of experiencing depression or heavy drinking in the face of an adult life stressor, using a large population-based Canadian cohort.

METHODS: A total of 3,930 participants were included from the National Population Health Survey. The associations among childhood trauma, recent stress and

depression/heavy drinking from 1994/1995 to 2008/2009 were explored using logistic regression, as were interactions between childhood trauma and recent stress. A generalized linear mixed model was used to determine the effects of childhood trauma and stressful events on depression/heavy drinking. Analyses were stratified by sex.

RESULTS: Childhood trauma significantly increased the odds of becoming depressed (following 1 event: OR = 1.66; 95%CI 1.01, 2.71; 2+ events, OR = 3.89; 95%CI 2.44, 6.22) and drinking heavily (2+ events: OR = 1.79; 95%CI 1.03, 3.13). Recent stressful events were associated with depression, but not heavy drinking. While most interaction terms were not significant, in 2004/2005 the association between recent stress and depression was stronger in those who reported childhood trauma compared to those with no childhood trauma.

CONCLUSIONS: Childhood trauma increases risk for both depression and heavy drinking. Trauma may moderate the effect of stress on depression; the relationship among trauma, stress and heavy drinking is less clear.

39. Psychol Med. 2013 Jan;43(1):73-84. doi: 10.1017/S003329171200102X. Epub 2012 May 21.

Adverse childhood experiences in relation to mood and anxiety disorders in a population-based sample of active military personnel.

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BACKGROUND: Although it has been posited that exposure to adverse childhood experiences (ACEs) increases vulnerability to deployment stress, previous literature in this area has demonstrated conflicting results. Using a cross-sectional population-based sample of active military personnel, the present study examined the relationship between ACEs, deployment related stressors and mood and anxiety disorders.

METHOD: Data were analyzed from the 2002 Canadian Community Health Survey-Canadian Forces Supplement (CCHS-CFS; n = 8340, age 18-54 years, response rate 81%). The following ACEs were self-reported retrospectively: childhood physical abuse, childhood sexual abuse, economic deprivation, exposure to domestic violence, parental divorce/separation, parental substance abuse problems, hospitalization as a child, and apprehension by a child protection service. DSM-IV mood and anxiety disorders [major depressive disorder, post-traumatic stress disorder (PTSD), generalized anxiety disorder (GAD), panic attacks/disorder and social phobia] were assessed using the composite international diagnostic interview (CIDI).

RESULTS: Even after adjusting for the effects of deployment-related traumatic exposures (DRTEs), exposure to ACEs was significantly associated with past-year mood or anxiety disorder among men [adjusted odds ratio (aOR) 1.34, 99% confidence interval (CI) 1.03-1.73, $p < 0.01$] and women [aOR 1.37, 99% CI 1.00-1.89, $p = 0.01$]. Participants exposed to both ACEs and DRTEs had the highest prevalence of past-year mood or anxiety disorder in comparison to those who were exposed to either ACEs alone, DRTEs alone, or no exposure.

CONCLUSIONS: ACEs are associated with several mood and anxiety disorders among active military personnel. Intervention strategies to prevent mental health problems should consider the utility of targeting soldiers with exposure to ACEs.

40. J Orthop Trauma. 2013 Feb;27(2):e38-41. doi: 10.1097/BOT.0b013e318250c837.

An evaluation of posttraumatic stress disorder and parent stress in children with orthopaedic injuries.

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OBJECTIVES: Trauma has more than physical effects on pediatric patients and their families. The purpose of this study was to evaluate pediatric orthopaedic trauma patients and patients with isolated nonoperative upper extremity (UE) fractures for emotional/psychologic symptoms associated with posttraumatic stress disorder (PTSD) and parent stress.

METHODS: An institutional review board-approved prospective study of patients aged 8-18 years who sustained a traumatic injury or isolated UE fracture from October 2009 to May 2010 was performed. Demographic data were obtained and the Child PTSD Symptom Scale was used. The Parent Stress Index was used to evaluate the stress of the parents/guardian. For 80% power, we needed 32 per group. P value was set at <0.05 .

RESULTS: A total of 76 children and their parents/guardians participated in the study. The mean age was 12.6 years (8-17 years). There were 56 males (74%) and 20 females (26%). The average time since injury was 12 months (3-89 months). The prevalence of PTSD between the high-energy trauma patients and the low-energy nonoperative UE patients was not significant. Overall, 33% of the children had PTSD. Involvement in music was significant between patients with and without PTSD ($P = 0.037$) and may be protective against PTSD.

CONCLUSIONS: PTSD commonly affects pediatric patients who sustain injuries as a result of a traumatic event, whether low- or high-energy mechanisms. We found no factors significantly associated with or predictive of PTSD and did not find an association of PTSD with parent stress. We need to maintain a high index of

suspicion in pediatric trauma patients regardless of the energy associated with the traumatic event.

LEVEL OF EVIDENCE: Prognostic Level II. See Instructions for Authors for a complete description of levels of evidence.

41. Cereb Cortex. 2013 Jan;23(1):28-35. doi: 10.1093/cercor/bhr369. Epub 2012 Jan 30.

Imbalanced neural responsivity to risk and reward indicates stress vulnerability in humans.

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Trauma-related psychopathology has been associated with an intense emotional reaction to stressful event. Emotional responses have evolved to signal the presence of risks to be avoided or of rewards to be approached in the environment. Thus, individuals' sensitivity to signals of risk and reward may affect the level of stress vulnerability. Stress, however, can modify these sensitivities as well. In the current functional magnetic resonance imaging (fMRI) study, we prospectively probed the neural correlates of such sensitivities in 24 healthy soldiers by using an interactive game that encompasses risky and rewarding intervals both pre-exposure and post-exposure to stressful military service. As expected, risky and rewarding intervals elicited selective responses in the amygdala and nucleus accumbens (NAcc), respectively. Furthermore, increased post-traumatic stress disorder symptoms post-exposure (i.e., stress vulnerability) corresponded to greater amygdala's response to risk both pre-exposure and post-exposure and to decreased NAcc response to reward only post-exposure. By combining these regional responsivities post-exposure, we accurately identified all the most vulnerable soldiers. Imbalanced neural responsivity to risk and reward following exposure to stress may therefore constitute a marker for stress vulnerability. Such identification of vulnerability biomarkers can aid future diagnostic and therapeutic efforts by allowing early detection of vulnerability as well as follow up on patient's treatment progression.

42. Alcohol Res. 2012;34(4):408-13.

Childhood trauma, posttraumatic stress disorder, and alcohol dependence.

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Early-childhood trauma is strongly associated with developing mental health problems, including alcohol dependence, later in life. People with early-life trauma may use alcohol to help cope with trauma-related symptoms. This article reviews the prevalence of early-childhood trauma and its robust association with the development of alcohol use disorders and posttraumatic stress disorder. It also examines the potential biological mechanisms by which early adverse experiences can result in long-lasting changes in neurobiology underlying this vulnerability, as well as pharmacological and behavioral interventions. Recent investigations highlight the importance of assessing trauma among patients with alcohol use disorders and the positive benefits associated with the application of integrative psychosocial interventions that target both trauma-related symptoms and alcohol dependence.