April, 2015 Medline Topic Alert

Bryant, R. A., L. Kenny, et al. (2014). "Treating prolonged grief disorder: a randomized clinical trial." JAMA Psychiatry 71(12): 1332-1339.

IMPORTANCE: Prolonged grief disorder (PGD) is a potentially disabling condition that affects approximately 10% of bereaved people. Grief-focused cognitive behavior therapy (CBT) has been shown to be effective in treating PGD. Although treatments for PGD have focused on exposure therapy, much debate remains about whether exposure therapy is optimal for PGD. OBJECTIVE: To determine the relative efficacies of CBT with exposure therapy (CBT/exposure) or CBT alone for PGD. DESIGN, SETTING, AND PARTICIPANTS: A randomized clinical trial of 80 patients with PGD attending the outpatient University of New South Wales Traumatic Stress Clinic from September 17, 2007, through June 7, 2010. INTERVENTIONS: All patients received 10 weekly 2-hour group therapy sessions that consisted of CBT techniques. Patients also received 4 individual sessions, in which they were randomized to receive exposure therapy for memories of the death or supportive counseling. MAIN OUTCOMES AND MEASURES: Measures of PGD by clinical interview and self-reported measures of depression, cognitive appraisals, and functioning at the 6-month follow-up. RESULTS: Intention-to-treat analyses at follow-up indicated a significant quadratic time×treatment condition interaction effect (B [SE], 0.49 [0.16]; $t_{120.16}=3.08$ [95% CI, 0.18-0.81]; P=.003), indicating that CBT/exposure led to greater PGD reductions than CBT alone. At follow-up, CBT/exposure led to greater reductions in depression (B [SE], 0.35 [0.12]; $t_{112.65}=2.83$ [95% CI, 0.11-0.60]; P=.005), negative appraisals (B [SE], 0.68 [0.25]; $t_{109.98}=2.66$ [95% CI, 0.17-1.18]; P=.009), and functional impairment (B [SE], 0.24 [0.08]; $t_{111.40}=3.01$ [95% CI, 0.08-0.40]; P=.003) than CBT alone. In terms of treatment completers, fewer patients in the CBT/exposure condition at follow-up (14.8%) met criteria for PGD than those in the CBT condition (37.9%) (odds ratio, 3.51; 95% CI, 0.96-12.89; chi2=3.81; P=.04). CONCLUSIONS AND RELEVANCE: Including exposure therapy that promotes emotional processing of memories of the death is an important component to achieve optimal reductions in PGD severity. Facilitating emotional responses to the death may promote greater changes in appraisals about the loss, which are associated with symptom reduction. Promotion of emotional processing techniques in therapies to treat patients with PGD is needed. TRIAL REGISTRATION: anzctr.org.au Identifier: ACTRN12609000229279.

Bryant-Davis, T. and E. C. Wong (2013). "Faith to move mountains: religious coping, spirituality, and interpersonal trauma recovery." Am Psychol 68(8): 675-684.

Interpersonal trauma is pervasive globally and may result in long-term consequences physically, cognitively, behaviorally, socially, and spiritually (Bryant-Davis, 2005b). One of the protective factors that have emerged in the literature is religious coping. Religious coping, spirituality,

and faith-based approaches to trauma recovery include endorsement of beliefs, engagement in behaviors, and access to support from faith communities. Compared with negative religious coping, spirituality and positive religious coping have been associated with decreased psychological distress, a finding established with survivors of child abuse, sexual violence, intimate partner violence, community violence, and war. This article focuses on spiritual and religious coping among survivors of child abuse, sexual violence, and war; however, research demonstrates increased use of positive religious coping among some survivors with higher rates of posttraumatic stress disorder. Much of the scholarship in this area includes qualitative studies with populations who face increased vulnerability to interpersonal trauma. Research in this area covers the life span from childhood to later adulthood and encompasses both domestic and international studies. The implications of research findings are explored, and future research needs are described. This line of research supports the American Psychological Association (2010) ethical standards that note the recognition of spiritual and religious faith traditions as important aspects of the provision of ethical treatment. Researchers, clinicians, and advocates for trauma survivors are encouraged to attend to the faith traditions and beliefs of persons confronting the potential devastation of traumatic events.

Busso, D. S., K. A. McLaughlin, et al. (2014). "Media exposure and sympathetic nervous system reactivity predict PTSD symptoms after the Boston marathon bombings." Depress Anxiety 31(7): 551-558.

BACKGROUND: Terrorist attacks have been shown to precipitate posttraumatic stress disorder (PTSD) symptomatology in children and adolescents, particularly among youths with high exposure to media coverage surrounding such events. Media exposure may be particularly likely to trigger PTSD symptoms in youths with high physiological reactivity to stress or with prior psychopathology or exposure to violence. We examined the interplay between media exposure, preattack psychopathology, autonomic nervous system (ANS) reactivity, and prior violence exposure in predicting PTSD symptom onset following the terrorist attack at the 2013 Boston Marathon. METHODS: A community sample of 78 adolescents (mean age = 16.7 years, 65% female) completed a survey about the bombings, including media exposure to the event and PTSD symptoms. All respondents participated in a study assessing psychopathology prior to the attack, and sympathetic and parasympathetic reactivity to a laboratory-based stressor was assessed in a subset (N = 44) of this sample. We examined the associations of media exposure, ANS reactivity, preattack psychopathology, and prior violence exposure with onset of PTSD symptoms related to the bombings. RESULTS: Media exposure, preattack psychopathology, and prior violence exposure were associated with PTSD symptoms. Moreover, media exposure interacted with sympathetic reactivity to predict PTSD symptom onset, such that adolescents with lower levels of sympathetic reactivity developed PTSD symptoms only following high exposure to media coverage of the attack. CONCLUSIONS: We provide novel evidence that physiological reactivity prior to exposure to an unpredictable traumatic stressor predicts PTSD symptom onset. These findings have implications for identifying youths most vulnerable to PTSD following wide-scale trauma.

Comer, J. S., C. E. Kerns, et al. (2014). "Adjustment among children with relatives who participated in the manhunt following the Boston Marathon attack." Depress Anxiety 31(7): 542-550.

BACKGROUND: Following the Boston Marathon attack, the extraordinary interagency manhunt and shelter-in-place made for a truly unprecedented experience for area families. Although research on Boston youth has found robust associations between manhunt-related experiences and post-attack functioning, such work does little to identify the specific needs of a particularly vulnerable population--i.e., children with a relative who participated in the manhunt. Understanding the adjustment of these youth is critical for informing clinical efforts. METHODS: Survey of Boston-area parents/caretakers (N = 460) reporting on their child's attack/manhunt-related experiences, as well as psychosocial functioning in the first six post-attack months; analyses compared youth with and without a relative in law enforcement or the armed services who participated in the manhunt. RESULTS: The proportion of youth with likely PTSD was 5.7 times higher among youth with relatives in the manhunt than among youth without. After accounting for child demographics, blast exposure, and children's own exposure to manhunt events (e.g., hearing/seeing gunfire/explosions, having officers enter/search home), having a relative in the manhunt significantly predicted child PTSD symptoms, emotional symptoms, and hyperactivity/inattention. Fear during the manhunt that a loved one could be hurt mediated relationships between having a relative in the manhunt and clinical outcomes; living within the zone of greatest manhunt activity did not moderate observed relationships. CONCLUSIONS: Children with relatives called upon to participate in the unprecedented interagency manhunt following the Boston Marathon attack carried a particularly heavy mental health burden. Continued research is needed to clarify the clinical needs of youth with relatives in high-risk occupations.

de Chesnay, M. (2013). "Psychiatric-mental health nurses and the sex trafficking pandemic." Issues Ment Health Nurs 34(12): 901-907.

Nurses are in a unique position to treat survivors of human trafficking and are most likely to encounter patients who have been involved in the sex trade. In particular, psychiatric-mental health nurses can be effective because they are educated to think of clients holistically and can provide both short-term medical intervention and long-term psychotherapy. Additionally, they can recognize and refer these individuals for medical treatment. The purpose of this article is to present an overview of sex trafficking and what psychiatric-mental health nurses can do to treat survivors.

Denneson, L. M., K. Corson, et al. (2014). "Mental health utilization of new-to-care Iraq and Afghanistan Veterans following suicidal ideation assessment." Psychiatry Res 217(3): 147-153.

We evaluated the impact of brief structured suicidal ideation (SI) assessments on mental health care among new-to-care Operations Enduring Freedom and Iraqi Freedom (OEF/OIF) veterans. National datasets provided military, demographic, and clinical information. For all new-to-care OEF/OIF veterans administered depression screens (PHQ-2: Patient Health Questionnaire-2) and structured SI assessments in primary care or ambulatory mental health settings of three Veterans Affairs (VA) Medical Centers between April 2008 and September 2009 (N=465), generalized estimating equations were used to examine associations between SI and number of subsequent-

year specialty mental health visits and antidepressant prescriptions. Approximately one-third of the veterans reported SI. In multivariate models, PTSD and anxiety diagnoses, severe depression symptoms, being married, and SI assessment by a mental health clinician were associated with more mental health visits in the subsequent year. Depression, PTSD, and anxiety diagnoses, and SI assessment by a mental health clinician were associated with receiving antidepressants. Presence of SI did not significantly affect subsequent year mental health utilization when adjusting for diagnostic and clinician variables, but inaugural visits involving mental health clinicians were consistently associated with subsequent mental health care.

Duncan, A. E., C. E. Sartor, et al. (2015). "Associations between body mass index, post-traumatic stress disorder, and child maltreatment in young women." Child Abuse Negl.

The objective of this study was to examine interrelationships between child maltreatment, post-traumatic stress disorder (PTSD) and body mass index (BMI) in young women. We used multinomial logistic regression models to explore the possibility that PTSD statistically mediates or moderates the association between BMI category and self-reported childhood sexual abuse (CSA), physical abuse (CPA), or neglect among 3,699 young women participating in a population-based twin study. Obese women had the highest prevalence of CSA, CPA, neglect, and PTSD (p<.001 for all). Although all three forms of child maltreatment were significantly, positively associated with overweight and obesity in unadjusted models, only CSA was significantly associated with obesity after adjusting for other forms of maltreatment and covariates (OR=2.21, 95% CI: 1.63, 3.00). CSA and neglect, but not CPA, were associated with underweight in unadjusted models; however, after adjusting for other forms of maltreatment and covariates, the associations were no longer statistically significant (OR=1.43, 95% CI: 0.90-2.28 and OR=2.16, 95% CI: 0.90-5.16 for CSA and neglect, respectively). Further adjustment for PTSD generally resulted in modest attenuation of effects across associations of child maltreatment forms with BMI categories, suggesting that PTSD may, at most, be only a weak partial mediator of these associations. Future longitudinal studies are needed to elucidate the mechanisms linking CSA and obesity and to further evaluate the role of PTSD in associations between child maltreatment and obesity.

Dunlop, B. W., B. O. Rothbaum, et al. (2014). "Evaluation of a corticotropin releasing hormone type 1 receptor antagonist in women with posttraumatic stress disorder: study protocol for a randomized controlled trial." Trials 15: 240.

BACKGROUND: Pharmacologic treatment options for posttraumatic stress disorder (PTSD) are limited in number and effectiveness. Medications currently in use to treat PTSD were originally approved based on their efficacy in other disorders, such as major depression. Substantial research in PTSD suggests that increased activity of corticotropin releasing hormone (CRH)-containing circuits are involved in the pathophysiology of the disease. This Phase II trial aims to evaluate the efficacy of a CRH type 1 receptor (CRHR1) antagonist in the treatment of PTSD. METHODS/DESIGN: Currently untreated adult women, ages 18 to 65 years, with a primary psychiatric diagnosis of PTSD of at least 3 months' duration, are being enrolled in a parallel-group, double-blind, placebo-controlled, randomized clinical trial evaluating the efficacy and safety of GSK561679, a novel CRHR1 receptor

antagonist. GSK561679 (or matching placebo) is prescribed at a fixed dose of 350 mg nightly for six weeks. The primary trial hypothesis is that GSK561679 will reduce symptoms of PTSD, as measured by the Clinician-Administered PTSD Scale (CAPS), significantly more than placebo after six weeks of treatment. Putative biological markers of PTSD which may influence treatment response are measured prior to randomization and after five weeks' exposure to the study medication, including: fear conditioning and extinction using psychophysiological measures; variants of stress-related genes and gene expression profiles; and indices of HPA axis reactivity. In addition, the impact of PTSD and treatment on neuropsychological performance and functional capacity are assessed at baseline and after the fifth week of study medication. After completion of the six-week double blind treatment period, subjects enter a one-month follow-up period to monitor for sustained response and resolution of any adverse effects. DISCUSSION: Considerable preclinical and human research supports the hypothesis that alterations in central nervous system CRH neuronal activity are a potential mediator of PTSD symptoms. This study is the first to assess the efficacy of a specific antagonist of a CRH receptor in the treatment of PTSD. Furthermore, the biological and neuropsychological measures included in this trial will substantially inform our understanding of the mechanisms of PTSD. TRIAL REGISTRATION: Clinicaltrials.gov Identifier: NCT01018992.Registered 6 November 2009. First patient randomized 14 January 2010.

Feldman, R., A. Vengrober, et al. (2014). "Affiliation buffers stress: cumulative genetic risk in oxytocin-vasopressin genes combines with early caregiving to predict PTSD in war-exposed young children." Transl Psychiatry 4: e370.

Research indicates that risk for post-traumatic stress disorder (PTSD) is shaped by the interaction between genetic vulnerability and early caregiving experiences; yet, caregiving has typically been assessed by adult retrospective accounts. Here, we employed a prospective longitudinal design with real-time observations of early caregiving combined with assessment of genetic liability along the axis of vasopressin-oxytocin (OT) gene pathways to test G x E contributions to PTSD. Participants were 232 young Israeli children (1.5-5 years) and their parents, including 148 living in zones of continuous war and 84 controls. A cumulative genetic risk factor was computed for each family member by summing five risk alleles across three genes (OXTR, CD38 and AVPR1a) previously associated with psychopathology, sociality and caregiving. Child PTSD was diagnosed and mother-child interactions were observed in multiple contexts. In middle childhood (7-8 years), child psychopathology was re-evaluated. War exposure increased propensity to develop Axis-I disorder by threefold: 60% of exposed children displayed a psychiatric disorder by middle childhood and 62% of those showed several comorbid disorders. On the other hand, maternal sensitive support reduced risk for psychopathology. G x E effect was found for child genetic risk: in the context of war exposure, greater genetic risk on the vasopressin-OT pathway increased propensity for psychopathology. Among exposed children, chronicity of PTSD from early to middle childhood was related to higher child, maternal and paternal genetic risk, low maternal support and greater initial avoidance symptoms. Child avoidance was predicted by low maternal support and reduced mother-child reciprocity. These findings underscore the saliency of both genetic and behavioral facets of the

human affiliation system in shaping vulnerability to PTSD as well as providing an underlying mechanism of post-traumatic resilience.

Ford, J. D., D. J. Grasso, et al. (2013). "Poly-victimization among juvenile justice-involved youths." Child Abuse Negl 37(10): 788-800.

OBJECTIVES: This study replicates and extends the research literature on poly-victimization with a vulnerable and under-served population, juvenile justice-involved youths. METHODS: N=1959, 10-16 year old youths (76% male; 74% youth of color) consecutively newly admitted to juvenile detention facilities completed psychometric measures of trauma history, posttraumatic stress, affect regulation, alcohol/drug use, suicide risk, and somatic complaints. RESULTS: Using latent class analysis derived from 19 types of adversity, three unique classes best fit the data. A poly-victim class (49% female, 51% youth of color) accounted for 5% of the sample and reported a mean of 11.4 (SD=1.1) types. A relatively moderate adversity class (31% female, 70% youth of color) accounted for 36% of the sample and reported a mean of 8.9 (SD=0.3) types of adversity and 2.65 (SD=1.1) types of traumatic adversity. A low adversity class (59% of the sample; 17% female, 78% youth of color) reported a mean of 7.4 (SD=0.4) adversity types but only 0.3 (SD=0.45) types of traumatic adversity. The relatively moderate adversity class was comparable to poly-victims in endorsing extensive non-victimization traumatic adversity (e.g., accidental and loss trauma), but poly-victims were distinct from both moderate and low adversity class members in the likelihood of reporting all but one type of traumatic victimization, multiple types of traumatic victimization, and severe emotional and behavioral problems. Girls were at particularly high risk of poly-victimization, and African American and White youths also were at risk for poly-victimization. CONCLUSIONS: Although youth involved in the juvenile justice system typically have experienced substantial victimization, a poly-victimized sub-group, especially (but not exclusively) girls, warrants particular scientific, clinical, and rehabilitative attention in order to address the most severe behavioral and mental health problems and risks faced by this vulnerable population.

Gallo, L. C., S. C. Roesch, et al. (2014). "Associations of chronic stress burden, perceived stress, and traumatic stress with cardiovascular disease prevalence and risk factors in the Hispanic Community Health Study/Study of Latinos Sociocultural Ancillary Study." Psychosom Med 76(6): 468-475.

OBJECTIVE: The current study examined multiple stress indicators (chronic, perceived, traumatic) in relation to prevalent coronary heart disease, stroke, and major cardiovascular disease (CVD) risk factors (i.e., diabetes, dyslipidemia, hypertension, and current smoking) in the multisite Hispanic Community Health Study/Study of Latinos Sociocultural Ancillary Study (2010-2011). METHODS: Participants were 5313 men and women 18 to 74 years old, representing diverse Hispanic/Latino ethnic backgrounds, who underwent a comprehensive baseline clinical examination and sociocultural examination with measures of stress. RESULTS: Chronic stress burden was related to a higher prevalence of coronary heart disease after adjusting for sociodemographic, behavioral, and biological risk factors (odds ratio [OR; 95% confidence interval], 1.22 [1.10-1.36]) and related to stroke prevalence in the model adjusted for demographic and behavioral factors (OR [95% confidence interval], 1.26 [1.03-1.55]). Chronic stress was also related to a higher prevalence of

diabetes (OR = 1.20 [1.11-1.31]) and hypertension (OR = 1.10 [1.02-1.19]) in individuals free from CVD (n = 4926). Perceived stress (OR = 1.03 [1.01-1.05]) and traumatic stress (OR = 1.15 [1.05-1.26]) were associated with a higher prevalence of smoking. Participants who reported a greater number of lifetime traumatic events also unexpectedly showed a lower prevalence of diabetes (OR = 0.89 [0.83-0.97]) and hypertension (OR = 0.88 [0.82-0.93]). Effects were largely consistent across age and sex groups. CONCLUSIONS: The study underscores the advantages of examining multiple indicators of stress in relation to health because the direction and consistency of associations may vary across distinct stress conceptualizations. In addition, the study suggests that chronic stress is related to higher CVD risk and prevalence in Hispanics/Latinos, the largest US ethnic minority group.

Green, B. (2014). "Prazosin in the treatment of PTSD." J Psychiatr Pract 20(4): 253-259.

Posttraumatic stress disorder (PTSD) often follows a chronic course, and the disorder is resistant to treatment with antidepressants and cognitive-behavioral therapy in a proportion of patients. Prazosin, an a1-adrenoceptor blocker, has shown some promise in treating chronic PTSD. A review of this literature was conducted via a search of MEDLINE and SUMMON, using keywords such as PTSD, prazosin, treatment, and resistance. At least 10 clinical studies of prazosin in the treatment of PTSD, including open-label and randomized controlled trials, have been published. All of these studies support the efficacy of prazosin either for treating nightmares and improving sleep or for reducing the severity of PTSD. Treatment of PTSD with prazosin is usually initiated at a dose of 1 mg, with monitoring for hypotension after the first dose. The dose is then gradually increased to maintenance levels of 2-6 mg at night. Studies of military patients with PTSD have used higher doses (e.g., 10-16 mg at night). Prazosin has also been studied in younger and older adults with PTSD and in patients with alcohol problems, in whom it was found to reduce cravings and stress responses. Prazosin offers some hope for treating resistant cases of PTSD in which recurrent nightmares are problematic, with a relatively rapid response within weeks. It is suggested that large-scale civilian trials of prazosin be done, as well as studies concerning the use of prazosin in acute PTSD and as a potential preventive agent.

Guo, W., J. M. Xue, et al. (2015). "Effect of the Interplay between Trauma Severity and Trait Neuroticism on Posttraumatic Stress Disorder Symptoms among Adolescents Exposed to a Pipeline Explosion." PLoS One 10(3): e0120493.

BACKGROUND: While numerous studies have explored relevant factors of posttraumatic stress disorder (PTSD) symptoms, there have been few joint investigations of trauma severity and trait neuroticism on the development of PTSD symptoms. This study aims to assess the involvement and interrelationship of trauma severity and neuroticism in the expression of PTSD symptoms among adolescents exposed to an accidental explosion. METHODS: Six hundred and sixty-two adolescents were recruited from a junior middle school closest to the 2013 pipeline explosion site in China and were assessed using the Explosion Exposure Questionnaire, the NEO Five Factor Inventory-Neuroticism Subscale (FFI-N), and the PTSD Checklist-Civilian (PCL-C). A battery of hierarchical multiple regression analyses and two-way ANOVAs were performed to examine the effect of trauma severity and trait neuroticism on adolescent PTSD symptoms. RESULTS: Eighty-seven adolescents

(13.1%) showed PTSD symptoms after the pipeline explosion. Correlation analysis showed that all the factors of explosion exposure and trait neuroticism were positively associated with adolescent PTSD symptoms. Being male and younger was linked to lower risk for PTSD symptoms. The regression models identified explosion exposure and neuroticism as independent risk factors for PTSD symptoms, and the interactions between trait neuroticism and trauma exposure (personal casualty, degree of influence, total traumatic severity) were related to PTSD symptoms. CONCLUSIONS: The results highlight the role of trauma exposure and trait neuroticism as risk factors for PTSD symptoms. Therefore, the combination of these two factors should be investigated in clinical settings due to an augmented risk for more severe PTSD symptoms.

Hall, B. J., W. A. Tol, et al. (2014). "Understanding resilience in armed conflict: social resources and mental health of children in Burundi." Soc Sci Med 114: 121-128.

Little is known about the role of cognitive social capital among war-affected youth in low- and middle-income countries. We examined the longitudinal association between cognitive social capital and mental health (depression and posttraumatic stress disorder (PTSD) symptoms), functioning, and received social support of children in Burundi. Data were obtained from face-to-face interviews with 176 children over three measurement occasions over the span of 4-months. Cognitive social capital measured the degree to which children believed their community was trustworthy and cohesive. Mental health measures included the Depression Self-Rating Scale (DSRS) (Birleson, 1981), the Child Posttraumatic Symptom Scale (Foa et al., 2001), and a locally constructed scale of functional impairment. Children reported received social support by listing whether they received different types of social support from self-selected key individuals. Cross-lagged path analytic modeling evaluated relationships between cognitive social capital, symptoms and received support separately over baseline (T1), 6-week follow-up (T2), and 4-month follow-up (T3). Each concept was treated and analyzed as a continuous score using manifest indicators. Significant associations between study variables were unidirectional. Cognitive social capital was associated with decreased depression between T1 and T2 (B = -.22, p < .001) and T2 and T3 (beta = -.25, p < .001), and with functional impairment between T1 and T2 (beta = -.15, p = .005) and T2 and T3 (beta = -.14, p = .005); no association was found for PTSD symptoms at either time point. Cognitive social capital was associated with increased social support between T1 and T2 (beta = .16, p = .002) and T2 and T3 (beta = .16, p = .002). In this longitudinal study, cognitive social capital was related to a declining trajectory of children's mental health problems and increases in social support. Interventions that improve community relations in war-affected communities may alter the trajectories of resource loss and gain with conflict-affected children.

Halperin, O., O. Sarid, et al. (2015). "The influence of childbirth experiences on womens postpartum traumatic stress symptoms: A comparison between Israeli Jewish and Arab women." Midwifery.

BACKGROUND: childbirth is a positive experience for most women yet some women express distress after birth. Traumatic experience can sometimes cause post-traumatic stress disorder (PTSD) in relation to childbirth. Prevalence of traumatic birth experience and PTSD after childbirth differs between cultures. OBJECTIVES: to examine the subjective recall of childbirth experiences and

PTSD symptoms of Israeli Jewish and Arab women; to examine comparatively the prevalence of PTSD symptoms six to eight weeks after childbirth and to establish the factors that predict PTSD symptoms. METHODS: a prospective study was conducted in a region characterised by wide variations in ethnocultural groups. The study was comprised of two time points: Time 1 (T1) interviews were conducted at the bedside of the women in the maternity ward of each hospital 24-48 hours after childbirth. Time 2 (T2), all 171 women participating in T1 were interviewed by phone six to eight weeks after childbirth. FINDINGS: 34 women (19.9%) reported their labour as traumatic 24-48 hours after birth (T1), and six to eight weeks later (T2) 67 women (39.2%) assessed their experience as traumatic. More Arab women (69.6%) than Jewish women (56.5%) had a positive memory of childbirth, but this difference only approached statistical significance (p=.09). Results showed rather low frequencies of PTSD symptoms, and no ethnic difference. PTSD symptoms were significantly and positively predicted by subjective recollection of childbirth experience (Time 2). PTSD symptoms were higher for women who did not have a vaginal birth, and more women with PTSD symptoms were not breast feeding. CONCLUSIONS: we found more similarities than differences between Arab and Jewish womens experience of their births and no differences between them on the prevalence of PTSD symptoms after birth. The results suggest that non-vaginal birth (instrumental or caesarean section) and negative recollection of the childbirth experience are important factors related to the development of PTSD symptoms after birth, and that women with PTSD symptoms are less likely to breast feed.

Jia, X., L. Ying, et al. (2015). "The effects of extraversion, social support on the posttraumatic stress disorder and posttraumatic growth of adolescent survivors of the wenchuan earthquake." PLoS One 10(3): e0121480.
        OBJECTIVE: The aim of this study was to examine the relationships among extraversion, social support, posttraumatic stress disorder and posttraumatic growth among adolescent survivors of the Wenchuan earthquake. METHODS: Six hundred thirty-eight participants were selected from the survivors of the 2008 Wenchuan earthquake. Participants completed four main questionnaires, including the Extraversion Subscale, the Social Support Scale, the Child PTSD Symptom Scale, and the Posttraumatic Growth Inventory. RESULTS: A bivariate correlation analysis revealed significant correlations among extraversion, social support, posttraumatic stress disorder and posttraumatic growth. Extraversion had significant indirect effects on posttraumatic stress disorder (beta = -.037, p < .01) and posttraumatic growth (beta = .077, p < .001) through social support. The results also indicated that extraversion had a significant direct effect on posttraumatic growth and a nonsignificant direct effect on posttraumatic stress disorder. CONCLUSIONS: Social support fully mediates the relationship between extraversion and posttraumatic stress disorder and partially mediates the relationship between extraversion and posttraumatic growth. Psychological interventions and care for survivors of the earthquake should include the various functions and sources of social support and how they serve to benefit individuals.

Keeshin, B. R., J. R. Strawn, et al. (2015). "Elevated Salivary Alpha Amylase in Adolescent Sexual Abuse Survivors with Posttraumatic Stress Disorder Symptoms." J Child Adolesc Psychopharmacol.

OBJECTIVE: Little is known regarding neuroendocrine responses in adolescent girls with posttraumatic stress disorder (PTSD) who have experienced sexual abuse. Therefore, we collected saliva samples three times daily for 3 days to assess concentrations of salivary alpha amylase (sAA) - a surrogate marker for autonomic nervous system (ANS) activity and, in particular, sympathetic activity - in sexually abused adolescent girls. METHODS: Twenty-four girls (mean age: 15+/-1.4 years) who had experienced recent sexual abuse (i.e., sexual abuse occurred 1-6 months prior to study enrollment) and 12 healthy comparison subjects (mean age: 14.8+/-1.3 years) completed a structured interview and assessments to ascertain symptoms of posttraumatic stress, then collected saliva at home upon awakening, 30 minutes after waking, and at 5 p.m. on three consecutive school days. RESULTS: For sexually abused girls, total PTSD symptoms were associated with higher overall morning levels of sAA ($r[20]=0.51$, $p=0.02$), a finding driven by intrusive symptoms ($r[20]=0.43$, $p<0.05$) and hyperarousal symptoms ($r[20]=0.58$, $p=0.01$). There were no significant differences in diurnal sAA secretion between the sexually abused girls and healthy comparison adolescents. CONCLUSIONS: Overall morning concentrations of sAA in sexually abused girls are associated with overall PTSD severity as well as symptoms of hyperarousal and intrusive symptoms, possibly reflecting symptom-linked increases in ANS tone. These data raise the possibility that alterations in ANS activity are related to the pathophysiology of sexual abuse-related PTSD in adolescent girls, and may inform therapeutic interventions (e.g., antiadrenergic medications).

Lei, D., L. Li, et al. (2015). "Microstructural Abnormalities in Children with Post-traumatic Stress Disorder: A Diffusion Tensor Imaging Study at 3.0T." Sci Rep 5: 8933.

Posttraumatic stress disorder (PTSD) is a severe anxiety disorder characterized by re-experiencing, avoidance and hyperarousal. Brain microstructure abnormalities in PTSD, especially in children, are not yet well characterized. The aim of this study was to use MR diffusion tensor imaging (DTI) to identify brain microstructure alterations in children with PTSD compared to non-PTSD controls who experienced the same time-limited trauma. We studied 27 children with PTSD and 24 age- and gender-matched traumatized controls without PTSD, who all experienced the 2008 Sichuan major earthquake. DTI data were acquired and analyzed in terms of fractional anisotropy (FA), mean diffusivity (MD), radial diffusivity (RD) and axial diffusivity (AD). Children with PTSD showed an abnormal pattern, not only of FA, but also of the diffusivity measures MD, AD and RD. Most of the abnormal brain regions belonged to two important networks: the default-mode network, including precuneus and angular gyrus, and the salience network, including insula, putamen and thalamus. This DTI study identifies microstructural abnormalities of children with PTSD after a major earthquake, our results are consistent with the suggestion that pediatric PTSD is accompanied by a connectivity disequilibrium between the salience and default-mode networks, a finding of potential pathophysiological significance.

Lowe, S. R., J. L. Meyers, et al. (2015). "and posttraumatic stress trajectories: main effects and interactions with childhood physical abuse history." Brain Behav: e00323.

BACKGROUND: Longitudinal studies of posttraumatic stress (PTS) have documented environmental factors as predictors of trajectories of higher, versus lower, symptoms, among them

experiences of childhood physical abuse. Although it is now well-accepted that genes and environments jointly shape the risk of PTS, no published studies have investigated genes, or gene-by-environment interactions (GxEs), as predictors of PTS trajectories. The purpose of this study was to fill this gap. METHODS AND MATERIALS: We examined associations between variants of the retinoid-related orphan receptor alpha (RORA) gene and trajectory membership among a sample of predominantly non-Hispanic Black urban adults (N = 473). The RORA gene was selected based on its association with posttraumatic stress disorder (PTSD) in the first PTSD genome wide association study. Additionally, we explored GxEs between RORA variants and childhood physical abuse history. RESULTS: We found that the minor allele of the RORASNP rs893290 was a significant predictor of membership in a trajectory of consistently high PTS, relatively to a trajectory of consistently low PTS. Additionally, the GxE of rs893290 with childhood physical abuse was significant. Decomposition of the interaction showed that minor allele frequency was more strongly associated with membership in consistently high or decreasing PTS trajectories, relative to a consistently low PTS trajectory, among participants with higher levels of childhood physical abuse. CONCLUSION: The results of the study provide preliminary evidence that variation in the RORA gene is associated with membership in trajectories of higher PTS and that these associations are stronger among persons exposed to childhood physical abuse. Replication and analysis of functional data are needed to further our understanding of how RORA relates to PTS trajectories.

Mallett, C. A. (2015). "The incarceration of seriously traumatised adolescents in the USA: limited progress and significant harm." Crim Behav Ment Health 25(1): 1-9.

Merckelbach, H., W. Langeland, et al. (2014). "Symptom overreporting obscures the dose-response relationship between trauma severity and symptoms." Psychiatry Res 217(3): 215-219.

We investigated whether symptom overreporting affects the dose-response relationship between self-reported abuse severity and psychiatric symptoms in two samples. The first sample (N=599) consisted of adults who had previously reported to a public commission that they had been witnesses to or victims of childhood sexual abuse by Roman Catholic Church representatives. The second sample (N=1756) consisted of general population respondents who indicated that they had been victims of non-familial childhood sexual abuse. Using a web-based data collection procedure, both samples completed the Brief Symptom Inventory (BSI-18), items addressing abuse severity, and items flagging symptom overreporting. Adjusting for overreporting reduced the proportion of participants with clinically raised BSI-18 scores from 60% to 47% in sample 1 and from 26% to 22% in sample 2. Also, in both samples, normal range reporting participants exhibited the typical dose-response relationship between trauma severity and BSI-18 scores, whereas this pattern was largely non-significant in overreporting participants. Our findings show that symptom overreporting has a psychometric impact that may obscure relationships between clinically relevant variables and should therefore preferably be monitored in surveys.

Moore, E., C. Gaskin, et al. (2013). "Childhood maltreatment and post-traumatic stress disorder among incarcerated young offenders." Child Abuse Negl 37(10): 861-870.

Young offenders have a high prevalence of mental illness and a large proportion report experiencing a number of traumatic events during childhood, but there is little research exploring this association. This study describes the prevalence of, and association between, child maltreatment and post-traumatic stress disorder (PTSD) among young offenders. The study uses data collected as part of the 2009 NSW Young People in Custody Health Survey which was conducted in nine juvenile detention centers. This paper reports on findings from the baseline questionnaires and 18-months of re-offending data. The analysis included 291 participants who were assessed for PTSD and child maltreatment. The sample was 88% male, 48% Aboriginal, with an average age of 17 years (range 13-21 years). One in five (20%) participants were diagnosed with PTSD, with females significantly more likely to have PTSD than males (40% vs. 17%, p<0.05). Over half (60%) of young offenders reported any child abuse or neglect, with females nearly 10 times more likely to report three or more kinds of severe child maltreatment than males. The main correlate for a diagnosis of PTSD was having three or more kinds of severe child maltreatment (OR=6.73, 95% CI: 1.06-42.92). This study provides evidence for the need to comprehensively assess child abuse and neglect among young offenders in order to provide appropriate treatment in custody and post-release.

Muller, M., C. Vandeleur, et al. (2015). "Posttraumatic stress avoidance symptoms as mediators in the development of alcohol use disorders after exposure to childhood sexual abuse in a Swiss community sample." Child Abuse Negl.
This study examined the role of posttraumatic stress disorder (PTSD) symptoms of re-experience, avoidance, and hyperarousal in the relationship between different types of trauma and alcohol use disorders (AUD). We used data from 731 trauma-exposed individuals who participated in the first wave of the PsyCoLaus-study. Trauma characteristics were assessed relatively to the occurrence of lifetime PTSD symptoms and AUD. The results suggest that lifetime and childhood sexual abuse as well as overall childhood trauma were directly linked to AUD and PTSD symptoms, in particular to avoidance symptoms. From single symptom clusters PTSD avoidance was found to specifically mediate the trauma-AUD pathway. Both childhood and sexual trauma strongly contribute to the comorbidity of PTSD and AUD and avoidance-type symptoms appear to play a central role in maintaining this association. Hence, the alleviation of avoidance symptoms might be an important target for therapeutic intervention among victims of sexual abuse before specific addiction treatment is initiated.

Nilsson, D., C. Nordenstam, et al. (2015). "Acute stress among adolescents and female rape victims measured by ASC-Kids: A pilot study." Nord J Psychiatry: 1-7.
Background: Rape is considered a stressful trauma and often with durable consequences. How the aftermath of rape is for young adolescents' girls considering acute stress is an overlooked field and remains to be studied. Aims: In this study, we wanted to investigate acute stress among adolescent victims of rape and the psychometric properties of the Acute Stress Checklist for Children (ASC-Kids). Methods: A clinical sample (n = 79) of raped girls, 13-17 years old who had turned to a special rape victim unit for treatment, answered the ASC-Kids. ASC-Kids was also given to a group of

minor stressed, non-raped adolescents in the same age range (n = 154) together with the University of California at Los Angeles Post-traumatic Stress Disorder Reaction Index (UCLA PTSD RI), and the Sense of Coherence Scale 13 (SOC-13). Results: The scores from the groups were compared and showed significant differences in mean values on all the diagnostic criteria of acute stress disorder. In the clinical group, 36.7% obtained full ASD criteria. ASC-Kids could discriminate well between groups. Cronbach's alpha was found to be excellent, and the correlation between the UCLA PTSD RI and ASC-Kids found to be good; both ASC-Kids and UCLA PTSD RI had a good and moderate negative correlation with SOC-13. Conclusion: Adolescent female rape victims were shown to have a very high level of acute stress, and the ASC-Kids was found to have sound psychometrics and can be a valuable screening instrument to support clinicians in their assessments of an indication of adolescents after potentially stressful events such as rape.

Raja, S., C. F. Rajagopalan, et al. (2015). "Teaching dental students to interact with survivors of traumatic events: development of a two-day module." J Dent Educ 79(1): 47-55.
        Dentists are likely to treat patients who have experienced a wide range of traumatic life events, including child abuse and neglect, domestic violence, sexual assault, elder abuse, and exposure to combat. In order to effectively treat survivors of traumatic events, dentists must understand how these patients may present in oral health settings, the basic mandated reporting requirements related to abuse and neglect, and communication strategies to help engage trauma survivors in dental treatment. A traditional lecture-format educational module on trauma-informed care was developed and implemented for second-year dental students (N=92) at one U.S. dental school, after which a needs assessment was performed (all 92 students participated). This assessment then informed development of an enhanced module for the subsequent group of second-year dental students (N=102) at the same school. The revised (final) module was more interactive in nature, expanded to multiple sessions, and included more discussion of mandated reporting and appropriate dentist-patient communication in relation to traumatic events. All 102 students participated in assessments of the revised module. Comparison of pre and post tests and needs assessments between the initial and final modules indicated that the extended, more interactive final module was more effective in meeting the educational objectives. Results showed that the final module increased the students' knowledge in the health-related manifestations of traumatic events and slightly improved their confidence levels in treating survivors of trauma. Dentists who are prepared to deliver trauma-informed care may help individual patients feel more at ease and increase engagement in regular preventive care. Suggestions for future educational efforts in this area are discussed.

Rona, R. J., M. Jones, et al. (2015). "Anger in the UK Armed Forces: strong association with mental health, childhood antisocial behavior, and combat role." J Nerv Ment Dis 203(1): 15-22.
        We assessed the strength of the association of several mental health problems, childhood difficulties, and combat role with anger, as well as the contribution of these factors to explain anger assessed by population attributable fraction (PAF). A total of 9885 UK service personnel, some of them deployed to Iraq and Afghanistan, participated in the study. There was a strong or intermediate

association between cases and subthreshold cases of symptoms of posttraumatic stress disorder, psychological distress, multiple physical symptoms and alcohol misuse, having a combat role, childhood adversity, and childhood antisocial behavior with anger. The PAF for any mental health problem and combat role and childhood difficulties was 0.64 (95% confidence interval [CI], 0.56-0.70) and increased to 0.77 (95% CI, 0.69-0.83) if subthreshold cases were included. Anger is a frequent component of mental disorders; health care professionals need to be aware of the interference of anger in the management of mental illness and that anger infrequently presents as an isolated phenomenon.

Scheeringa, M. S. and C. F. Weems (2014). "Randomized placebo-controlled D-cycloserine with cognitive behavior therapy for pediatric posttraumatic stress." J Child Adolesc Psychopharmacol 24(2): 69-77.

Abstract Objective: Research on D-cycloserine (DCS), a partial N-methyl-d-aspartic acid (NMDA) agonist, has suggested that it may enhance exposure-based therapies for anxiety disorders. RESULTS with DCS in adult posttraumatic stress disorder (PTSD) have been conflicting; however, no data have been reported on children with PTSD. Although many individuals with PTSD respond to exposure-based cognitive behavioral therapy (CBT), there are subgroups of individuals who are nonresponders, and many responders still have substantial residual symptoms. This randomized, triple-blind, placebo-controlled study tested DCS as an adjunct to CBT to improve and speed treatment response for PTSD in youth. METHODS: Seven to 18 year-old youth with exposure to trauma and PTSD were offered a 12 session, manualized CBT treatment. Those who remained in treatment at the fifth session were randomly allocated (n=57) to either CBT and DCS or CBT and placebo. RESULTS: Youth in the CBT and DCS group had significant reductions in symptoms, but these reductions were not greater than those in the CBT and placebo group. There was a trend toward DCS speeding PTSD symptom recovery during the exposure-based sessions, and evidence that the CBT and DCS group better maintained stability of gains on inattention ratings from posttreatment to the 3 month follow-up. CONCLUSIONS: This initial study of CBT and DCS to treat pediatric PTSD provided suggestive and preliminary evidence for more rapid symptom recovery and beneficial effects on attention, but did not show an overall greater effect for reducing PTSD symptoms. It appears that augmentation with DCS represents unique challenges in PTSD. Because PTSD involves complex, life-threatening trauma memories, as opposed to the imagined dreadful outcomes of other anxiety disorders, the use of DCS may require greater attention to how its use is coupled with exposure-based techniques. DCS may have inadvertently enhanced reconsolidation of trauma memories rather than more positive and adaptive memories. In addition, the results suggest that future research could focus on the longer-term benefits of DCS on attention and ways to capitalize on attention-enhancing therapies. ClinicalTrials.gov registry: Effect of D-cycloserine on Treatment of Posttraumatic Stress Disorder (PTSD) in Youth, #NCT01157416, http://clinicaltrials.gov/ct2/results?term=NCT01157416&Search=Search , and D-cycloserine Adjunctive Treatment for Posttraumatic Stress Disorder (PTSD) in Adolescents, #NCT01157429, http://clinicaltrials.gov/ct2/results?term=NCT01157429&Search=Search .

Shah, S. R. (2014). "Blood feuds trap young girls in 'compensation marriages': a psychiatric torture." Asian J Psychiatr 9: 99-100.

Simsek, S., C. Uysal, et al. (2015). "BDNF and cortisol levels in children with or without post-traumatic stress disorder after sustaining sexual abuse." Psychoneuroendocrinology 56: 45-51.

OBJECTIVE: There are studies reporting that cortisol and brain-derived neurotropic factor (BDNF) play a role in the pathophysiology of post-traumatic stress disorder (PTSD). However, up-to-date no study evaluated the relationship between PTSD and the levels of cortisol and BDNF in children and adolescents who have sustained trauma. The aim of this study was to investigate whether BDNF, cortisol and adrenocorticotropine (ACTH) levels differ between individuals who developed PTSD or not following a sexual trauma. METHOD: The study included 55 children aged between 6 and 17 years who sustained sexual assault (M/F: 13/42). The patients were divided into two groups, with or without PTSD based on the results of a structured psychiatric interview (K-SADS-PL and CAPS-CA). Of the participants, 49% (n=27) were diagnosed with PTSD. Cortisol, ACTH, and BDNF levels were evaluated using the ELISA method. RESULTS: There were no significant differences between patients with or without PTSD in terms of cortisol, ACTH, BDNF levels. There were no correlations between CAPS-CA scores and cortisol, ACTH, and BDNF levels in patients with or without PTSD. In patients with PTSD, decreased cortisol levels were found with increasing time after trauma, and no significant correlation was found with the cortisol levels in patients without PTSD. CONCLUSION: Although no significant association was found between biochemical parameters and the presence or severity of PTSD; decreasing cortisol levels with increasing time after trauma in patients with PTSD suggest that cortisol might have played a role in the pathophysiology of this disorder.

Sitko, K., R. P. Bentall, et al. (2014). "Associations between specific psychotic symptoms and specific childhood adversities are mediated by attachment styles: an analysis of the National Comorbidity Survey." Psychiatry Res 217(3): 202-209.

Accumulated evidence over the past decade consistently demonstrates a relationship between childhood adversity and psychosis in adulthood. There is some evidence of specific associations between childhood sexual abuse and hallucinations, and between insecure attachment and paranoia. Data from the National Comorbidity Survey were used in assessing whether current attachment styles influenced the association between adverse childhood experiences and psychotic symptoms in adulthood. Hallucinations and paranoid beliefs were differentially associated with sexual abuse (rape and sexual molestation) and neglect, respectively. Sexual abuse and neglect were also associated with depression. The relationship between neglect and paranoid beliefs was fully mediated via anxious and avoidant attachment. The relationship between sexual molestation and hallucinations was independent of attachment style. The relationship between rape and hallucinations was partially mediated via anxious attachment; however this effect was no longer present when depression was included as a mediating variable. The findings highlight the importance of addressing and understanding childhood experiences within the context of current attachment styles in clinical interventions for patients with psychosis.

Spilsbury, J. C., D. C. Babineau, et al. (2014). "Association between children's exposure to a violent event and objectively and subjectively measured sleep characteristics: a pilot longitudinal study." J Sleep Res 23(5): 585-594.

Although sleep disturbances are commonly reported among children exposed to violence, objective evidence of such disturbances is rare. This longitudinal, home-based study assessed the effects of a known community- or family-violence incident on both actigraphy-derived and subjectively reported sleep outcomes of an ethnically mixed, urban sample of children aged 8-16 years. We hypothesized that increased event severity (child physical assault, witnessed homicide) would be associated with lower sleep duration and poorer sleep quality both at baseline and at 3-month follow-up. Covariate-adjusted analyses based on a generalized estimating equations approach showed that children physically assaulted during the event showed lower sleep duration and sleep efficiency and greater wake after sleep onset than those not physically assaulted. Physically assaulted children were more likely to have a later bedtime than non-assaulted children, but this difference decreased at 3 months. Children witnessing a homicide showed greater wake after sleep onset at baseline and reported greater sleep problems than those witnessing a non-homicide event, but these differences decreased at 3 months. They were also somewhat more likely to have greater nightly variation in sleep duration. Collectively, results suggest that violence exposure influences children's sleep, but that specific dimensions of sleep may exhibit different susceptibility to different characteristics of violence, especially over time.

van der Velden, P. G., M. W. Bosmans, et al. (2014). "Social organizational stressors and post-disaster mental health disturbances: a longitudinal study." Psychiatry Res 219(1): 177-182.

Social organizational stressors are well-known predictors of mental health disturbances (MHD). However, to what extent these stressors predict post-disaster MHD among employed victims hardly received scientific attention and is clearly understudied. For this purpose we examined to what extent these stressors independently predict MHD 1.5 years post-disaster over and above well-known risk factors such as disaster exposure, initial MHD and lack of general social support, life-events in the past 12 months and demographics (N=423). Exposure, social organizational stressors and support were significantly associated with almost all examined mental health disturbances on a bi-variate level. Multivariate logistic regression analyses showed that these stressors, i.e. problems with colleagues, independently predicted anxiety (Adj. OR=5.93), depression (Adj. OR=4.21), hostility (Adj. OR=2.85) and having two or more mental health disturbances (Adj. OR=3.39) in contrast to disaster exposure. Disaster exposure independently predicted symptoms of PTSD symptoms (Adj. OR=2.47) and agoraphobia (Adj. OR=2.15) in contrast to social organizational stressors. Importantly, levels of disaster exposure were not associated nor correlated with (levels of) social organizational stressors. Findings suggest that post-disaster mental health care programs aimed at employed affected residents, should target social organizational stressors besides disaster-related stressors and lack of general social support.

Vrijsen, J. N., E. S. Becker, et al. (2014). "What is the contribution of different cognitive biases and stressful childhood events to the presence and number of previous depressive episodes?" Psychiatry Res 217(3): 134-142.

      Negative cognitive biases as well as stressful childhood events are well-known risk factors for depression. Few studies have compared the association of different types of biases and events with depression. The current study examined whether different cognitive biases and stressful childhood events variables were associated with depression and recurrence. Three types of childhood events were assessed in 83 never-depressed and 337 formerly depressed individuals: trauma within the family, trauma outside the family, and adverse events. Furthermore, after a sad mood induction procedure, participants executed a Dot Probe task (selective attentional bias), an Emotional Stroop task (attentional interference bias) and an incidental learning task (memory bias). The association of these measures with case status and recurrence status (one or multiple past episodes) was examined. Negative memory bias and traumatic childhood events within the family were associated with case status, whereas none of the bias measures or childhood events variables were associated with recurrence status. The results indicate that memory bias as well as the experience of aggression and/or abuse within the family during childhood are independently associated with depression. Biases and stressful childhood events did not offer differentiation between individuals with one or multiple past episodes.

Wang, X. W., A. Karki, et al. (2015). "Plasma levels of high mobility group box 1 increase in patients with posttraumatic stress disorder after severe blunt chest trauma: a prospective cohort study." J Surg Res 193(1): 308-315.

      BACKGROUND: High-mobility group box 1 (HMGB1), a key late mediator of systemic inflammation, is a potentially useful biomarker for predicting outcome in patients with severe blunt chest trauma. The purpose of this study was to define the relationship between plasma levels of HMGB1 and posttraumatic stress disorder (PTSD) in patients with severe blunt chest trauma. METHODS: All patients with severe blunt chest trauma (abbreviated injury score >/=3) who were admitted to traumatic surgery department and ultimately survived to follow-up at 6 mo were eligible for the study. HMGB1 was sampled every other day from day 1-day 7 after admission, and plasma concentrations of HMGB1 were measured by a quantitative enzyme-linked immunosorbent assay test. Multivariate regression analysis was used to define the independent contribution of possible risk factors selected by univariate analysis. RESULTS: PTSD was identified in 43 patients including acute PTSD (n = 21), chronic PTSD (n = 18), and delayed-onset PTSD (n = 4) after 6-mo follow-up, in whom significant higher plasma levels of HMGB1 on days three, five, and seven after blunt chest trauma were noted compared with those seen in patients without PTSD (n = 10). Multivariate logistic analysis showed that transfusion, injury severity score, and HMGB1 levels at day 7 were the valuable risk factors for PTSD. CONCLUSIONS: In blunt chest trauma, plasma HMGB1 levels were significantly higher in patients with PTSD compared with patients with non-PTSD. Our data indicate that patients with high plasma levels of HMGB1 may be more prone to develop PTSD including acute and chronic PTSD.

Wu, J., Y. Yuan, et al. (2015). "The relationship between response inhibition and posttraumatic stress symptom clusters in adolescent earthquake survivors: An event-related potential study." Sci Rep 5: 8844.

Posttraumatic stress disorder (PTSD) patients experience impaired response inhibition. Little is known about the relationship between response inhibition abnormalities and distinct PTSD symptom clusters. This study investigated the relationship between response inhibition processing and a five-factor model of posttraumatic stress symptomatology in adolescents. The event-related potentials of 54 unmedicated adolescent earthquake survivors (age 15-18 years) were recorded as they completed a Go/NoGo task. The PTSD Checklist-Specific Stressor Version (PCL-S) was used to assess PTSD symptoms. Regression analyses were conducted to examine the associations between the five symptom-cluster model and response inhibition processing. The results revealed that the avoidance symptom cluster score, but not the numbing or other clusters' scores, was positively associated with NoGo-P3 latency. These results suggest that a specific PTSD symptom cluster-avoidance-has a distinct association with the slowed speed of the late step of response inhibition processing, i.e., decision or success of response inhibition in adolescent earthquake survivors.