

June 2015 Medline Topic Alert

Adams, Z. W., J. A. Sumner, et al. (2014). "Prevalence and predictors of PTSD and depression among adolescent victims of the Spring 2011 tornado outbreak." *J Child Psychol Psychiatry* 55(9): 1047-1055.

BACKGROUND: Relatively few studies have examined prevalence and predictors of posttraumatic stress disorder (PTSD) or major depressive episode (MDE) in disaster-affected adolescents. Fewer still have administered diagnostic measures or studied samples exposed to tornadoes, a common type of disaster. Further, methodologic problems limit the generalizability of previous findings. This study addressed prevalence estimates and risk factors for PTSD and MDE among adolescents exposed to the Spring 2011 tornado outbreak in Alabama and Joplin, Missouri. **METHODS:** A large (N = 2000), population-based sample of adolescents and caregivers, recruited randomly from tornado-affected communities, participated in structured telephone interviews. PTSD and MDE prevalence were estimated for the overall sample, by gender, and by age. Hierarchical logistic regression was used to identify risk factors for PTSD and MDE. **RESULTS:** Overall, 6.7% of adolescents met diagnostic criteria for PTSD and 7.5% of adolescents met diagnostic criteria for MDE since the tornado. Girls were significantly more likely than boys to meet diagnostic criteria for MDE, and older adolescents were more likely than younger adolescents to report MDE since the tornado. Female gender, prior trauma exposure, and an injured family member were associated with greater risk for PTSD and MDE. Specific incident characteristics (loss of services, concern about others' safety) were associated with greater PTSD risk; prior disaster exposure was associated with lower MDE risk. **CONCLUSIONS:** However, most adolescents were resilient following tornado exposure, roughly 1 in 15 developed PTSD, 1 in 13 developed MDE, and many more endorsed subclinical mental health problems. Information regarding specific risk factors can guide early screening, prevention, and intervention efforts in disaster-affected communities.

Alvarez-Segura, M., L. Garcia-Esteve, et al. (2014). "Are women with a history of abuse more vulnerable to perinatal depressive symptoms? A systematic review." *Arch Womens Ment Health* 17(5): 343-357.

The objective of this paper is to examine the association between maternal lifetime abuse and perinatal depressive symptoms. Papers included in this review were identified through electronic searches of the following databases: Pubmed Medline and Ovid, EMBASE, PsycINFO, and the Cochrane Library. Each database was searched from its start date through 1 September 2011. Keywords such as "postpartum," "perinatal," "prenatal," "depression," "violence," "child abuse," and "partner abuse" were included in the purview of MeSH terms. Studies that examined the association between maternal lifetime abuse and perinatal depression were included. A total of 545 studies

were included in the initial screening. Forty-three articles met criteria for inclusion and were incorporated in this review. Quality of articles was evaluated with the Newcastle-Ottawa-Scale (NOS). This systematic review indicates a positive association between maternal lifetime abuse and depressive symptoms in the perinatal period.

Amone-P'Olak, K., T. M. Lekhuttle, et al. (2014). "Mediators of the relation between war experiences and suicidal ideation among former child soldiers in Northern Uganda: the WAYS study." *BMC Psychiatry* 14: 271.

BACKGROUND: Globally, suicide is a public health burden especially in the aftermath of war. Understanding the processes that define the path from previous war experiences (WE) to current suicidal ideation (SI) is crucial for defining opportunities for interventions. We assessed the extent to which different types of previous WE predict current SI and whether post-war hardships and depression mediate the relations between WE and SI among former child soldiers (FCS) in Northern Uganda. **METHODS:** We performed cross-sectional analyses with a sample of 539 FCS (61% male) participating in an on-going longitudinal study. The influence of various types of previous WE on current SI and mediation by post-war hardships and depression were assessed by regression analyses. **RESULTS:** The following types of war experiences: "witnessing violence", "direct personal harm", "deaths", "Involvement in hostilities", "sexual abuse" and "general war experiences" significantly predicted current SI in a univariable analyses whereas "direct personal harm", "involvement in hostilities", and "sexual abuse" independently predicted current SI in a multivariable analyses. General WE were linked to SI (beta = 0.18 (95% CI 0.10 to 0.25)) through post-war hardships (accounting for 69% of the variance in their relationship) and through depression/anxiety (beta = 0.17 (95% CI 0.12 to 0.22)) accounting for 65% of the variance in their relationship. The direct relationship between previous WE and current SI reduced but remained marginally significant (beta = .08, CI: (.01, .17) for depression/anxiety but not for post-war hardships (beta = .09, CI: (-.03, .20). **CONCLUSION:** Types of WE should be examined when assessing risks for SI. Interventions to reduce SI should aim to alleviate post-war hardships and treat depression/anxiety.

Baillie, S. E., W. Sellwood, et al. (2014). "Post-traumatic growth in adults following a burn." *Burns* 40(6): 1089-1096.

It is well established that a burn can result in negative psychological consequences. Throughout the literature there is also reference to individuals reporting positive changes post-burn. The concept of 'post-traumatic growth' (PTG) refers to such individuals, whose recovery exceeds pre-trauma levels of well-being. To date there has only been one quantitative analysis directly examining PTG post-burn. The present study builds on this, examining the prevalence of PTG and related constructs, including: social support, coping styles, dispositional optimism, functioning, post-traumatic stress symptoms, severity and time since burn. Seventy-four participants recruited through a regional burns unit completed a battery of self-report questionnaires. Burn survivors were found to experience PTG, although to a lesser degree than previous research suggests (GM=1.26, range=0-4.67). Severity of burn, post-burn functioning and trauma symptoms significantly correlated with PTG. Regression analysis proposed a model explaining 51.7% of the variance, with active coping,

perceived social support and avoidance coping as significant predictors of PTG. Results support the theory that distress and trauma symptoms act as a catalyst for PTG. Coping styles and social support appear to facilitate this process. Clinical implications are discussed.

Bennett, D. C. and P. K. Kerig (2014). "Investigating the construct of trauma-related acquired callousness among delinquent youth: differences in emotion processing." *J Trauma Stress* 27(4): 415-422.

This study tested theories regarding differences in emotion processing among youth characterized by primary versus acquired callous-unemotional (CU) traits in a sample of 417 detained adolescents (306 boys, 111 girls). Mixture modeling identified 2 groups of youth high in CU, but with different levels of posttraumatic stress symptoms consistent with theoretical conceptualizations of acquired CU as being linked to trauma. Differences between the 2 groups of youth were investigated regarding 3 dimensions of emotion processing: emotion regulation, numbing, and recognition. Compared to youth classified in the primary group, youth classified as acquired CU demonstrated greater difficulty with lack of clarity (OR = 0.53), and nonacceptance of emotions, (OR = 0.57), general numbing of emotions (OR = 0.87), and recognition of disgust (OR = 0.18). Differences in emotion processing reported by youth in the 2 groups are consistent with theories regarding acquired callousness as related to emotional detachment in the aftermath of posttraumatic distress. The results of the current study have implications for the classification of primary and acquired CU, as well as the clinical treatment of youth with these characteristics.

Blevins, C. A., F. W. Weathers, et al. (2014). "Dissociation and posttraumatic stress disorder: a latent profile analysis." *J Trauma Stress* 27(4): 388-396.

The fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association,) contains a dissociative subtype for posttraumatic stress disorder (PTSD) characterized by significant depersonalization and derealization. In this study the PTSD dissociative subtype was examined using latent profile analysis in a sample of 541 trauma-exposed college students. Items from the PTSD Checklist and Multiscale Dissociation Inventory were used as latent class indicators. Results supported a 3-class solution including a well-adjusted class, a PTSD class, and a PTSD/dissociative class characterized by elevated symptoms of PTSD, depersonalization, and derealization. Significant class differences were found on a number of measures of related psychopathology with Cohen's *d* effect size estimates ranging from 0.04 to 1.86. Diagnostic and treatment implications regarding the dissociative subtype are discussed.

Borghini, A., S. Habersaat, et al. (2014). "Effects of an early intervention on maternal post-traumatic stress symptoms and the quality of mother-infant interaction: the case of preterm birth." *Infant Behav Dev* 37(4): 624-631.

Preterm birth may represent a traumatic situation for both parents and a stressful situation for the infant, potentially leading to difficulties in mother-infant relationships. This study aimed to investigate the impact of an early intervention on maternal posttraumatic stress symptoms, and on the quality of mother-infant interactions, in a sample of very preterm infants and their mothers. Half

of the very preterm infants involved in the study (n=26) were randomly assigned to a 3-step early intervention program (at 33 and 42 weeks after conception and at 4 months' corrected age). Both groups of preterm infants (with and without intervention) were compared to a group of full-term infants. The impact of the intervention on maternal posttraumatic stress symptoms was assessed 42 weeks after conception and when the infants were 4 and 12 months of age. The impact of the intervention on the quality of mother-infant interactions was assessed when the infants were 4 months old. Results showed a lowering of mothers' posttraumatic stress symptoms between 42 weeks and 12 months in the group of preterm infants who received the intervention. Moreover, an enhancement in maternal sensitivity and infant cooperation during interactions was found at 4 months in the group with intervention. In the case of a preterm birth, an early intervention aimed at enhancing the quality of the mother-infant relationship can help to alleviate maternal post-traumatic stress symptoms and may have a positive impact on the quality of mother-infant interactions.

Bowleg, L., C. C. Fitz, et al. (2014). "Racial discrimination and posttraumatic stress symptoms as pathways to sexual HIV risk behaviors among urban Black heterosexual men." *AIDS Care* 26(8): 1050-1057.

In light of evidence that racial discrimination and posttraumatic stress symptoms (PTSS) are neither rare nor extraordinary for many Black urban men, we examined the relationship between everyday racial discrimination and sexual HIV risk behaviors in a predominantly low-income sample of 526 urban Black heterosexually identified men; 64% of whom were unemployed and 55% of whom reported a history of incarceration. We tested the hypothesis that PTSS would mediate the relationship between everyday racial discrimination and sexual risk. Participants in the predominantly low-income urban sample ranged in age from 18 to 45 (M = 28.80, SD = 7.57). Three multiple regression models were used to test the study's mediational model. As hypothesized, PTSS mediated the relationship between everyday racial discrimination and sexual risk behaviors. Most participants (97%) reported experiences with everyday racial discrimination. Results empirically support the notion of racial discrimination-based traumatic stress as a pathway to Black heterosexual men's increased sexual risk behaviors. Results also highlighted key demographic differences with older men reporting fewer PTSS and sexual risk behaviors compared with younger men. Incarceration was related to both PTSS and sexual risk, underscoring the role that incarceration may play in Black heterosexual men's adverse health outcomes. Our study highlights the need for more qualitative and quantitative research to understand the nature of PTSS in Black heterosexual men and mechanisms such as substance use that may link traumatic experiences and sexual risk. Future research could also assess experiences with childhood sexual abuse, violence, and incarceration to gain a more in-depth understanding of the sources of traumatic stress in Black heterosexual men's lives. We advocate for the development of community-based individual and structural-level interventions to help Black heterosexual men in urban areas develop effective strategies to cope with racial discrimination-based traumatic stress to reduce sexual HIV risk behaviors in Black communities.

Brosig, C., A. Pai, et al. (2014). "Child and family adjustment following pediatric solid organ transplantation: factors to consider during the early years post-transplant." *Pediatr Transplant* 18(6): 559-567.

Adjusting to life after transplant can be challenging to pediatric solid organ transplant recipients and their families. In this review, we discuss a number of important factors to consider during the first 2-3 yr after transplant (defined as the "early years"), including transitioning from hospital to home, returning to physical activity, feeding and nutrition, school reentry, potential cognitive effects of transplant, family functioning, and QOL. We highlight steps that providers can take to optimize child and family adjustment during this period.

Caldwell, B. A. and N. S. Redeker (2015). "Maternal stress and psychological status and sleep in minority preschool children." *Public Health Nurs* 32(2): 101-111.

OBJECTIVES: Minority women living in inner city environments may be at more risk for psychological distress. Maternal stress, anxiety, depression, and psychological trauma can influence the preschool child's behavior and may have a negative impact on the preschool child's sleep patterns. The purpose of the study was to: (a) examine objective and subjective preschool children sleep patterns and (b) explore the relationship between objective and subjective sleep patterns in preschool children and maternal psychological status. **DESIGN AND SAMPLE:** A cross-sectional observational design was used. Descriptive analyses and correlations were conducted to examine the data. Twenty-one minority women were recruited from the Special Supplemental Nutrition Program for Women, Infants, and Children Program. **MEASURES:** Preschool children wore wrist actigraphs, and their sleep efficiency, time in bed, and sleep periods were analyzed. Mothers completed measures on depression, anxiety, stress, and psychological trauma. **RESULTS:** Mothers' self-report of their children's sleep habits indicated at risk scores for sleep problems. Life stress in the mothers was statistically significant and negatively related to preschool child's sleep duration. Mild to severe symptoms of depression and mild anxiety were reported and criteria for Post Traumatic Stress Disorder were found in 12 of the 21 mothers. The results of the study indicate that parent education on sleep and the minority preschool child should be part of community interventions and screening preschool parents for psychological distress should be considered with referrals for support services.

Carmassi, C., C. Antonio Bertelloni, et al. (2015). "Impact of DSM-5 PTSD and gender on impaired eating behaviors in 512 Italian earthquake survivors." *Psychiatry Res* 225(1-2): 64-69.

Considerable comorbidity rates between Post-traumatic Stress Disorder (PTSD) and eating disorders have been recently reported, as well as increased obesity and underweight conditions. The aim of the present study was to investigate the possible associations between DSM-5 PTSD, gender and impaired eating habits in a sample of 512 Italian earthquake survivors evaluated by the Trauma and Loss Spectrum-Self Report (TALS-SR) and the Mood Spectrum-Self Report (MOODS-SR). Alterations in eating behaviors were assessed by means of four MOODS-SR items: n=150 (...there was no food that appealed to you or tasted good to you?), n=151 (...you constantly craved sweets or carbohydrates?), n=152 (...your appetite or weight decreased?), n=153 (...your appetite or weight

increased?). In a Decision Tree procedure subjects with PTSD with respect to those without and, in the No-PTSD subgroup, females with respect to males, had a significantly higher ratio of at least one MOODS-SR eating behavior item (MOODS-SR EB). In the No-PTSD subgroup only, subjects with at least one MOODS-SR EB presented a significantly higher mean TALS-SR symptomatological domains total score with respect to those without MOODS-SR EB. In conclusion, alterations in eating behaviors were associated with PTSD after the LAquila earthquake; among survivors without PTSD significant a correlation emerged between MOODS-SR EB and PTSD symptoms.

Craig, C. D. and G. Sprang (2014). "Gender differences in trauma treatment: do boys and girls respond to evidence-based interventions in the same way?" *Violence Vict* 29(6): 927-939.

This article investigates gender differences in trauma symptoms from baseline to end of treatment (trauma-focused cognitive behavioral therapy or parent-child interaction therapy) in children ages 7-18 years. Multivariate analysis of covariance (MANCOVA) and trend analysis using analysis of covariance (ANCOVA) were conducted on baseline and end of treatment University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA PTSD-RI) total scores. Results suggest that female children start at higher reported total posttraumatic stress disorder rates than males, but both groups experience significant symptom reduction during the course of treatment. At posttreatment, girls are still reporting higher symptom levels on the UCLA PTSD-RI than boys, suggesting that their clinical presentation at discharge may differ despite significant treatment gains. A full factorial model including the interaction of dose and gender was not significant. Identification of these gender-specific response patterns are an important consideration in treatment and discharge planning for children who have been trauma-exposed and are presenting for treatment with post trauma exposure disturbances.

Deshpande, S. N., B. Pfefferbaum, et al. (2014). "Children's emotional and behavioral reactions to disasters: role of the primary care physician." *J Okla State Med Assoc* 107(9-10): 501-506.

BACKGROUND: Children are especially vulnerable to the effects of disasters. The coming tornado season raises concerns about enduring problems and anniversary reactions related to the May 2013 tornadoes as well as anxiety about the possibility of new events. **METHODS:** This article describes common emotional and behavioral disaster reactions in children and also identifies reactions unique to a particular age. Reactions are clustered into depressive, anxious, and behavioral symptoms and physiological responses. **PRIMARY RESULTS:** This article outlines the key elements in assessing children's disaster reactions and provides specific recommendations for situations that would indicate the need for a mental health evaluation such as for directly-exposed children, children who experience disaster-related losses, those with pre-existing vulnerabilities, and those with significant symptoms. **PRINCIPAL CONCLUSIONS:** Primary care physicians can help identify the emotional and behavioral effects of disasters in children, educate parents to recognize children's reactions, and refer children in need of specialized care.

Dorsey, S., M. D. Pullmann, et al. (2014). "Engaging foster parents in treatment: a randomized trial of supplementing trauma-focused cognitive behavioral therapy with evidence-based engagement strategies." *Child Abuse Negl* 38(9): 1508-1520.

The goal of this study was to examine the impact of supplementing Trauma-focused Cognitive Behavioral Therapy (TF-CBT; Cohen et al., 2006) with evidence-based engagement strategies on foster parent and foster youth engagement in treatment, given challenges engaging foster parents in treatment. A randomized controlled trial of TF-CBT standard delivery compared to TF-CBT plus evidence-based engagement strategies was conducted with 47 children and adolescents in foster care and one of their foster parents. Attendance, engagement, and clinical outcomes were assessed 1 month into treatment, end of treatment, and 3 months post-treatment. Youth and foster parents who received TF-CBT plus evidence-based engagement strategies were more likely to be retained in treatment through four sessions and were less likely to drop out of treatment prematurely. The engagement strategies did not appear to have an effect on the number of canceled or no-show sessions or on treatment satisfaction. Clinical outcomes did not differ by study condition, but exploratory analyses suggest that youth had significant improvements with treatment. Strategies that specifically target engagement may hold promise for increasing access to evidence-based treatments and for increasing likelihood of treatment completion.

Duax, J. M., K. M. Bohnert, et al. (2014). "Posttraumatic stress disorder symptoms, levels of social support, and emotional hiding in returning veterans." *J Rehabil Res Dev* 51(4): 571-578.

The current study examines the associations among levels of social support, emotional hiding, and screening positive for posttraumatic stress disorder (PTSD) within a sample of 536 Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) veterans. Michigan and Ohio OIF/OEF veterans were contacted to complete a postdeployment mental health screening questionnaire developed as part of the Department of Veterans Affairs Ann Arbor Healthcare System's Serving Returning Veterans Mental Health Program. Approximately 30% of veterans screened positive for PTSD. All sources of social support, as well as emotional hiding, were significantly associated with screening positive for PTSD. Each unit increase of emotional hiding from spouses or significant others, friends, and family was associated with a 32% to 44% increase in odds of screening positive for PTSD. Additional research is needed to examine constructs related to social support and PTSD, such as emotional hiding, in order to identify areas for intervention.

Dyregrov, A., A. Salloum, et al. (2015). "Grief and traumatic grief in children in the context of mass trauma." *Curr Psychiatry Rep* 17(6): 577.

Children who have had someone close die as a result of a mass trauma event such as war, armed conflict, acts of terror, political violence, torture, mass accidents, and natural disasters are at risk for biopsychosocial problems. Research on how to classify when grief becomes complicated or traumatic in children is scarce, and while functioning level may provide a good indication, assessing functioning may be difficult in mass trauma environments where routines and structure are often lacking. There are promising trauma- and grief-focused interventions for children post-mass trauma, which are mostly provided in school settings. However, more advanced multi-method interventions

are needed that address grief and trauma in the context of the child's overall mental health, parent/caregiver role in assisting the child, family system issues, ways to provide safe caring environments amidst chaos and change, and interventions that take into account local consumer perspectives, including the voices of children.

Earley, M. D., M. A. Chesney, et al. (2014). "Mindfulness intervention for child abuse survivors: a 2.5-year follow-up." *J Clin Psychol* 70(10): 933-941.

OBJECTIVE: The present study reports on the long-term effects of a mindfulness-based stress reduction (MBSR) program for adult survivors of childhood sexual abuse. **METHOD:** Of the study participants, 73% returned to the clinic for a single-session follow-up assessment of depression, posttraumatic stress disorder (PTSD), anxiety, and mindfulness at 2.5 years. **RESULTS:** Repeated measures mixed regression analyses revealed significant long-term improvements in depression, PTSD, anxiety symptoms, and mindfulness scores. The magnitude of intervention effects at 128 weeks ranged from $d = .5$ to $d = 1.1$. **CONCLUSION:** MBSR may be an effective long-term treatment for adults who have experienced childhood sexual abuse. Further investigation of MBSR with this population is warranted given the durability of treatment effects described here.

Fan, F., K. Long, et al. (2015). "Longitudinal trajectories of post-traumatic stress disorder symptoms among adolescents after the Wenchuan earthquake in China." *Psychol Med*: 1-12.

BACKGROUND: This study examines the patterns and predictors of post-traumatic stress disorder (PTSD) symptom trajectories among adolescent survivors following the Wenchuan earthquake in China. **METHOD:** A total of 1573 adolescent survivors were followed up at 6, 12, 18 and 24 months post-earthquake. Participants completed the Posttraumatic Stress Disorder Self-Rating Scale (PTSD-SS), Adolescent Self-Rating Life Events Checklist, Social Support Rate Scale, and the Simplified Coping Style Questionnaire. Distinct patterns of PTSD symptom trajectories were established through grouping participants based on time-varying changes of developing PTSD (i.e. reaching the clinical cut-off on the PTSD-SS). Multivariate logistic regressions were used to examine predictors for trajectory membership. **RESULTS:** PTSD prevalence rates at 6, 12, 18 and 24 months were 21.0, 23.3, 13.5 and 14.7%, respectively. Five PTSD symptom trajectories were observed: resistance (65.3% of the sample), recovery (20.0%), relapsing/remitting (3.3%), delayed dysfunction (4.2%) and chronic dysfunction (7.2%). Female gender and senior grade were related to higher risk of developing PTSD symptoms in at least one time point, whereas being an only child increased the possibility of recovery relative to chronic dysfunction. Family members' injury/loss and witness of traumatic scenes could also cause PTSD chronicity. More negative life events, less social support, more negative coping and less positive coping were also common predictors for not developing resistance or recovery. **CONCLUSIONS:** Adolescents' PTSD symptoms showed an anniversary reaction. Although many adolescents remain euthymic or recover over time, some adolescents, especially those with the risk factors noted above, exhibit chronic, delayed or relapsing symptoms. Thus, the need for individualized intervention with these adolescents is indicated.

Felmingham, K. L., E. M. Falconer, et al. (2014). "Reduced amygdala and ventral striatal activity to happy faces in PTSD is associated with emotional numbing." *PLoS One* 9(9): e103653.

There has been a growing recognition of the importance of reward processing in PTSD, yet little is known of the underlying neural networks. This study tested the predictions that (1) individuals with PTSD would display reduced responses to happy facial expressions in ventral striatal reward networks, and (2) that this reduction would be associated with emotional numbing symptoms. 23 treatment-seeking patients with Posttraumatic Stress Disorder were recruited from the treatment clinic at the Centre for Traumatic Stress Studies, Westmead Hospital, and 20 trauma-exposed controls were recruited from a community sample. We examined functional magnetic resonance imaging responses during the presentation of happy and neutral facial expressions in a passive viewing task. PTSD participants rated happy facial expression as less intense than trauma-exposed controls. Relative to controls, PTSD participants revealed lower activation to happy (-neutral) faces in ventral striatum and a trend for reduced activation in left amygdala. A significant negative correlation was found between emotional numbing symptoms in PTSD and right ventral striatal regions after controlling for depression, anxiety and PTSD severity. This study provides initial evidence that individuals with PTSD have lower reactivity to happy facial expressions, and that lower activation in ventral striatal-limbic reward networks may be associated with symptoms of emotional numbing.

Galvin, J. and F. Muscara (2014). "An online psycho-educational intervention for parents did not impact parent or child post-traumatic stress symptoms more than usual care for children following injury." *Aust Occup Ther J* 61(5): 372-374.

Gigengack, M. R., E. P. van Meijel, et al. (2015). "Comparing three diagnostic algorithms of posttraumatic stress in young children exposed to accidental trauma: an exploratory study." *Child Adolesc Psychiatry Ment Health* 9: 14.

BACKGROUND: Both the DSM-5 algorithm for posttraumatic stress disorder (PTSD) in children 6 years and younger and Scheeringa's alternative PTSD algorithm (PTSD-AA) aim to be more developmentally sensitive for young children than the DSM-IV PTSD algorithm. However, very few studies compared the three algorithms simultaneously. The current study explores diagnostic outcomes of the three algorithms in young child survivors of accidental trauma. **METHODS:** Parents of 98 young children (0-7 years) involved in an accident between 2006 and 2012 participated in a semi-structured telephone interview. Child posttraumatic stress symptoms (PTSS) were measured with the Anxiety Disorders Interview Schedule for DSM-IV-Child Version (ADIS-C/P), complemented with items from the Diagnostic Infant and Preschool Assessment (DIPA). Descriptive statistics were used to analyze the characteristics of the children, accident related information and PTS symptoms. We compared the three PTSD algorithms in order to explore the diagnostic outcomes. **RESULTS:** A total of 9 of the children (9.2 %) showed substantial PTSS. Of these children 2 met the criteria of all three algorithms, 7 met both the DSM-5 subtype for children 6 years and younger and the PTSD-AA algorithm, and 2 did not fully meet any of the algorithms (subsyndromal PTSD). **CONCLUSIONS:** For young children, the DSM-5 subtype for children 6 years and younger and the PTSD-AA algorithm

appear to be better suited than the previous DSM-IV algorithm. It remains important that clinicians pay attention to children with subsyndromal PTSD.

Goldsmith, R. E., J. I. Gerhart, et al. (2014). "Mindfulness-based stress reduction for posttraumatic stress symptoms: building acceptance and decreasing shame." *J Evid Based Complementary Altern Med* 19(4): 227-234.

Mindfulness-based psychotherapies are associated with reductions in depression and anxiety. However, few studies address whether mindfulness-based approaches may benefit individuals with posttraumatic stress symptoms. The current pilot study explored whether group mindfulness-based stress reduction therapy reduced posttraumatic stress symptoms, depression, and negative trauma-related appraisals in 9 adult participants who reported trauma exposure and posttraumatic stress or depression. Participants completed 8 sessions of mindfulness-based stress reduction treatment, as well as pretreatment, midtreatment, and posttreatment assessments of psychological symptoms, acceptance of emotional experiences, and trauma appraisals. Posttraumatic stress symptoms, depression, and shame-based trauma appraisals were reduced over the 8-week period, whereas acceptance of emotional experiences increased. Participants' self-reported amount of weekly mindfulness practice was related to increased acceptance of emotional experiences from pretreatment to posttreatment. Results support the utility of mindfulness-based therapies for posttraumatic stress symptoms and reinforce studies that highlight reducing shame and increasing acceptance as important elements of recovery from trauma.

Gonzalez, R. A., M. C. Velez-Pastrana, et al. (2015). "Childhood ADHD symptoms are associated with lifetime and current illicit substance-use disorders and in-site health risk behaviors in a representative sample of Latino prison inmates." *J Atten Disord* 19(4): 301-312.

OBJECTIVE: This study aimed to explore retrospective childhood ADHD symptomatology, psychiatric comorbidity, rates of substance-use disorders (SUD), as well as their association with high-risk health behaviors in prison and adverse health outcomes. **METHOD:** A randomly selected representative sample of inmates in the Puerto Rico correctional system (N = 1,179) was assessed with the Spanish-language Wender Utah Rating Scale (WURS); the Composite International Diagnostic Interview (CIDI) modules for lifetime/current major depression disorder (MDD), generalized anxiety disorder (GAD), and SUD; the Davidson Trauma Scale (DTS; posttraumatic stress disorder [PTSD]); and self-reports of in-site high-risk behaviors. **RESULTS:** Wald chi(2) tests revealed significant associations of ADHD with MDD and PTSD, as well as increased risk for overdosing and intravenous drug use in prison. A logistic regression model adjusted for mood and anxiety comorbidity predicted lifetime SUD diagnosis (odds ratio = 2.38; 95% confidence interval = [1.15, 4.94]). **CONCLUSION:** Our results provide further evidence on the association of drug dependence and ADHD symptoms, and their overrepresentation among prison inmates.

Gudino, O. G., J. R. Weis, et al. (2014). "Group trauma-informed treatment for adolescent psychiatric inpatients: a preliminary uncontrolled trial." *J Trauma Stress* 27(4): 496-500.

Despite high rates of trauma exposure (46%-96%) and significant posttraumatic stress disorder (PTSD; 21%-29%) symptoms in adolescent psychiatric inpatients, there is a dearth of research on effective interventions delivered in inpatient settings. The current report describes the development of Brief STAIR-A, a repeatable 3-module version of skills training in affective and interpersonal regulation (STAIR) developed for adolescents in inpatient care. An uncontrolled design was used to conduct a preliminary examination of the group intervention's effectiveness. Adolescent psychiatric inpatients (N = 38; ages 12 years-17 years) admitted to a public hospital participated in Brief STAIR-A and attended a median of 6 sessions (range 3-36). They completed measures of PTSD and depressive symptom severity, coping skill use, and coping efficacy upon admission and again prior to discharge. Participants reported significant reductions in symptom severity ($d = 0.65-0.67$), no change in the absolute level of coping skills used ($d = 0.16$), but greater coping efficacy when discharged from care ($d = 0.75$). Results from this pilot study suggest that this brief group treatment shows promise for treating adolescents' trauma-related difficulties in inpatient psychiatry settings, but additional research examining its effectiveness is essential.

Habersaat, S., A. Borghini, et al. (2014). "Effects of perinatal stress and maternal traumatic stress on the cortisol regulation of preterm infants." *J Trauma Stress* 27(4): 488-491.

Preterm infants experience intense stress during the perinatal period because they endure painful and intense medical procedures. Repeated activation of the hypothalamic-pituitary-adrenal (HPA) axis during this period may have long-term effects on subsequent cortisol regulation. A premature delivery may also be intensely stressful for the parents, and they may develop symptoms of posttraumatic stress disorder (PTSD). Usable saliva samples were collected (4 times per day over 2 days, in the morning at awakening, at midday, in the afternoon, and in the evening before going to bed) to assess the diurnal cortisol regulation from 46 preterm infants when the infants were 12 months of corrected age (approximately 14 months after birth). Mothers reported their level of PTSD symptoms. The results showed an interaction between perinatal stress and maternal traumatic stress on the diurnal cortisol slope of preterm infants ($R(2) = .32$). This suggests that the HPA axis of preterm infants exposed to high perinatal stress may be more sensitive to subsequent environmental stress.

Han, T. J., J. C. Felger, et al. (2015). "Association of childhood trauma with fatigue, depression, stress, and inflammation in breast cancer patients undergoing radiotherapy." *Psychooncology*.

BACKGROUND: This pilot study examined whether breast cancer patients with childhood trauma exhibit increased fatigue, depression, and stress in association with inflammation as a result of whole breast radiotherapy (RT). **METHODS:** Twenty breast cancer patients were enrolled in a prospective, longitudinal study of fatigue, depression, and perceived stress prior to RT, week 6 of RT, and 6 weeks post-RT. Six weeks after RT, subjects completed the childhood trauma questionnaire (CTQ). Patients were also administered the multidimensional fatigue inventory, inventory of depressive symptomatology-self-reported, and perceived stress scale at all three time-points and underwent blood sampling prior to RT for gene expression and inflammatory markers previously associated with childhood trauma and behavioral symptoms in breast cancer patients. **RESULTS:**

Eight subjects (40%) had past childhood trauma (CTQ+). Compared to CTQ- patients, CTQ+ patients had significantly higher fatigue, depression, and stress scores before, during, and after RT ($p < 0.05$); however, RT did not increase these symptoms in either group. CTQ+ patients also exhibited increased baseline expression of gene transcripts related to inflammatory signaling, and baseline inflammatory markers including c-reactive protein, interleukin (IL)-6, and IL-1 receptor antagonist were positively correlated with depression, fatigue, and stress scores in CTQ+ but not CTQ- patients. CONCLUSIONS: Childhood trauma was prevalent and was associated with increased symptoms of fatigue, depression, and stress irrespective of RT. Increased symptoms in CTQ+ patients were also associated with baseline inflammatory markers. Treatments targeting childhood trauma and related inflammation may improve symptoms in breast cancer patients. Copyright (c) 2015 John Wiley & Sons, Ltd.

Hauser, W., E. M. Hoffmann, et al. (2015). "Self-reported childhood maltreatment, lifelong traumatic events and mental disorders in fibromyalgia syndrome: a comparison of US and German outpatients." *Clin Exp Rheumatol* 33(1 Suppl 88): S86-92.

OBJECTIVES: The robustness of findings on retrospective self-reports of childhood maltreatment and lifetime traumatic experiences of adults with fibromyalgia syndrome (FMS) has not been demonstrated by transcultural studies. This is the first transcultural study to focus on the associations between FMS, childhood maltreatment, lifetime psychological traumas, and potential differences between countries adjusting for psychological distress. METHODS: 71 age- and sex-matched US and German FMS outpatients were compared. Childhood maltreatment was assessed by the Childhood Trauma Questionnaire and potential, traumatic experiences by the trauma list of the Munich Composite International Diagnostic Interview. Potential posttraumatic stress disorder (PTSD) was diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders IV-TR symptom criteria by the Posttraumatic Diagnostic Scale. Potential depressive and anxiety disorder were assessed by the Patient Health Questionnaire PHQ 4. RESULTS: US and German patients did not significantly differ in the amount of self-reported childhood maltreatment (emotional, physical and sexual abuse or neglect) or in the frequency of lifetime traumatic experiences. No differences in the frequency of potential anxiety, depression, and PTSD were seen. Psychological distress fully accounted for group differences in emotional and sexual abuse and emotional and physical neglect. CONCLUSIONS: The study demonstrated the transcultural robustness of findings on the association of adult FMS with self-reports of childhood maltreatment and lifelong traumatic experiences. These associations are mainly explained by current psychological distress.

Hitchcock, C., A. A. Ellis, et al. (2015). "The Prospective Role of Cognitive Appraisals and Social Support in Predicting Children's Posttraumatic Stress." *J Abnorm Child Psychol*.

Although both social support and cognitive appraisals are strong predictors of children's posttraumatic adjustment, understanding of the interplay between these factors is limited. We assessed whether cognitive appraisals mediated the relationship between social support and symptom development, as predicted by cognitive models of posttraumatic stress disorder (PTSD). Ninety seven children (Mean age = 12.08 years) were assessed at one month and six months

following a single incident trauma. We administered self-report measures of cognitive appraisals, social support, and a diagnostic interview for PTSD. Results indicated that cognitive appraisals at one month post-trauma mediated the relationship between social support at one month post-trauma, and PTSD severity at follow-up. Differences in this relationship were observed between child-reported social support and parent-rated ability to provide support. Firm evidence was provided for the application of cognitive models of PTSD to children.

Hutson, R. A., E. Trzcinski, et al. (2014). "Features of child food insecurity after the 2010 Haiti earthquake: results from longitudinal random survey of households." *PLoS One* 9(9): e104497.

BACKGROUND: Recent commentary on the health consequences of natural disasters has suggested a dearth of research on understanding the antecedents prior to the disaster that are associated with health consequences after the disaster. Utilizing data from a two-wave panel survey of Port-au-Prince, Haiti, conducted just prior to and six weeks after the January 2010 earthquake, we test factors prior to the quake hypothesized to be associated with food insecurity after the quake. **METHODS:** Using random Global Positioning System (GPS) sampling, we re-interviewed 93.1% (N = 1732) of the original 1,800 households interviewed in 2009. Respondents were queried with regard to mortalities, injuries, food security, housing, and other factors after the quake. **FINDINGS:** Child food insecurity was found to be common on all three indices of food security (17.2%-22.6%). Additionally, only 36.5% of school-aged children were attending school prior to the quake. Findings suggest that prior schooling was associated with a substantial reduction on food insecurity indices (OR 0.62-0.75). Findings further suggest that several household characteristics were associated with food insecurity for children. Prior chronic/acute illnesses, poor living conditions, remittances from abroad, primary respondent mental health, and histories of criminal and other human rights violations committed against family members prior to the quake were associated with food insecurity after the earthquake. Earned household income after the quake was only associated with one of the measures of food insecurity. **INTERPRETATION:** Food insecurity for children was common after the quake. Those households vulnerable on multiple dimensions prior to the quake were also vulnerable to food insecurity after the quake. Remittances from abroad were leading protective factors for food security. Because Haiti is well known for the potentiality of both hurricanes and earthquakes, reconstruction and redevelopment should focus on ameliorating potential vulnerabilities to poor outcomes in these natural disasters.

Iles, J., H. Spiby, et al. (2014). "Modification and preliminary use of the five-minute speech sample in the postpartum: associations with postnatal depression and posttraumatic stress." *Arch Womens Ment Health* 17(5): 389-402.

Little is known about what constitutes key components of partner support during the childbirth experience. This study modified the five minute speech sample, a measure of expressed emotion (EE), for use with new parents in the immediate postpartum. A coding framework was developed to rate the speech samples on dimensions of couple support. Associations were explored between these codes and subsequent symptoms of postnatal depression and posttraumatic stress. 372 couples were recruited in the early postpartum and individually provided short speech samples.

Posttraumatic stress and postnatal depression symptoms were assessed via questionnaire measures at six and thirteen weeks. Two hundred and twelve couples completed all time-points. Key elements of supportive interactions were identified and reliably categorised. Mothers' posttraumatic stress was associated with criticisms of the partner during childbirth, general relationship criticisms and men's perception of helplessness. Postnatal depression was associated with absence of partner empathy and any positive comments regarding the partner's support. The content of new parents' descriptions of labour and childbirth, their partner during labour and birth and their relationship within the immediate postpartum may have significant implications for later psychological functioning. Interventions to enhance specific supportive elements between couples during the antenatal period merit development and evaluation.

Iranmanesh, S., A. Shamsi, et al. (2015). "Post-traumatic Stress Symptoms among Iranian Parents of Children during Cancer Treatment." *Issues Ment Health Nurs* 36(4): 279-285.

Support of parents of children with cancer requires healthcare personnel to be knowledgeable about the prevalence of post-traumatic stress symptoms among Iranian parents of children with cancer. This study was conducted to fulfill this aim in the South-East of Iran. Using the Impact of Event Scale -Revised, for parents of children with cancer, 200 parents in two hospitals supervised by Kerman University of Medical Sciences, were assessed. The total mean score of post-traumatic stress symptoms was 41.70. Among all categories of the Impact of Event Scale -Revised, the highest mean belonged to the category of 'intrusion' 16.03 (SD = 6.24) and the lowest one belonged to the category of 'hyperarousal' 10.68 (SD = 4.58). Based on the results, mothers had higher post-traumatic stress symptoms compared with fathers ($p < 0.05$). Adjusted odds ratio showed that the prevalence of post-traumatic stress symptoms among mothers was 2.49 times more than that among fathers ($p = 0.01$). There was no association between sociodemographic data and post-traumatic stress symptoms. More research is needed to elucidate the Iranian parents' experience of having children with cancer.

Iverson, K. M. and T. K. Pogoda (2015). "Traumatic brain injury among women veterans: an invisible wound of intimate partner violence." *Med Care* 53(4 Suppl 1): S112-119.

BACKGROUND: Intimate partner violence (IPV) is prevalent among women Veterans and is known to increase women's risk for traumatic brain injury (TBI). IPV-related TBI has not been examined in the women Veteran population. **OBJECTIVES:** To identify the occurrence of IPV-related TBI in a sample of women Veterans and examine the associations of IPV-related TBI with sociodemographic characteristics, health symptoms, health care utilization, and IPV experiences. **RESEARCH DESIGN:** Cross-sectional mail survey conducted in 2013. **SUBJECTS:** The sample comprised 176 New England Department of Veterans Affairs (VA) women Veteran patients. **MEASURES:** Self-reported IPV-related TBI was assessed with a modified VA TBI screening tool. The survey included validated measures of depression (Center for Epidemiologic Studies Depression Scale) and posttraumatic stress disorder (PTSD; Posttraumatic Disorder Checklist) symptoms, as well as overall mental and physical health (SF-12), and IPV (Conflict Tactics Scales-Revised-2). Questions assessed past-year VA and non-VA health care use. **RESULTS:** A total of 18.8% ($n=33$) met screening

criteria for IPV-related TBI history. Women who experienced IPV-related TBI reported significantly higher depression (mean Center for Epidemiologic Studies Depression Scale scores: 26.6 vs. 20.7, $P < 0.0001$) and PTSD (mean Posttraumatic Disorder Checklist scores: 53.2 vs. 34.1, $P < 0.0001$) symptoms, and poorer perceptions of physical health (mean SF-12 34.6 vs. 42.3, $P < 0.01$) than women who experienced IPV to the head without TBI. IPV-related TBI was also associated with poorer perceptions of mental health, as well as more frequent VA health care utilization and overall IPV. CONCLUSIONS: IPV-related TBI is associated with poorer mental and physical health in women Veterans. This invisible injury is associated with greater VA health care utilization and IPV exposure. Implications for VA practice and policy are discussed.

Kamboj, S. K., L. Oldfield, et al. (2014). "Voluntary and involuntary emotional memory following an analogue traumatic stressor: the differential effects of communality in men and women." *J Behav Ther Exp Psychiatry* 45(4): 421-426.

BACKGROUND: Men and women show differences in performance on emotional processing tasks. Sex also interacts with personality traits to affect information processing. Here we examine effects of sex, and two personality traits that are differentially expressed in men and women - instrumentality and communality - on voluntary and involuntary memory for distressing video-footage. **METHODS:** On session one, participants ($n = 39$ men; 40 women) completed the Bem Sex-Role Inventory, which assesses communal and instrumental traits. After viewing film-footage of death/serious injury, participants recorded daily involuntary memories (intrusions) relating to the footage on an online diary for seven days, returning on day eight for a second session to perform a voluntary memory task relating to the film. **RESULTS:** Communality interacted with sex such that men with higher levels of communality reported more frequent involuntary memories. Alternatively, a communality x sex interaction reflected a tendency for women with high levels of communality to perform more poorly on the voluntary recognition memory task. **LIMITATIONS:** The study involved healthy volunteers with no history of significant psychological disorder. Future research with clinical populations will help to determine the generalizability of the current findings. **CONCLUSION:** Communality has separate effects on voluntary and involuntary emotional memory. We suggest that high levels of communality in men and women may confer vulnerability to the negative effects of stressful events either through the over-encoding of sensory/perceptual-information in men or the reduced encoding of contextualised, verbally-based, voluntarily accessible representations in women.

Karsberg, S., C. Armour, et al. (2014). "Patterns of victimization, suicide attempt, and posttraumatic stress disorder in Greenlandic adolescents: a latent class analysis." *Soc Psychiatry Psychiatr Epidemiol* 49(9): 1389-1399.

AIM: The current study had two main aims. The first was to identify groups of adolescents based on their similarity of responding across a number of victimizing and potentially traumatic events (PTEs). In doing so, we employed the statistical technique of Latent Class Analysis (LCA). The second aim was to assess the relationship between our resultant classes and the covariates of gender, suicide attempt, and PTSD. **METHODS:** Two hundred and sixty-nine Greenlandic school

students, aged 12-18 ($M = 15.4$, $SD = 1.84$) were assessed for their level of exposure to PTEs. In addition, adolescents were assessed for the psychological impact of these events. A LCA was performed on seven binary indicators representing PTEs. Logistic regression was subsequently implemented to ascertain the relationships between latent classes and covariates. RESULTS: Three distinct classes were uncovered: a violence, neglect, and bullying class (class 1), a wide-ranging multiple PTE class (class 2), and a normative/baseline class (class 3). Notably, classes 1 and 2 were largely separated by the presence or absence of sexual PTEs. Individuals who reported having previously attempted suicide were almost six times more likely to be members of class 1 ($OR = 5.97$) and almost four times more likely to be members of class 2 ($OR = 3.87$) compared to the baseline class (class 3). Individuals who met the diagnostic criteria for PTSD were five times as likely to be members of class 1 and class 2 ($OR = 5.09$) compared to the baseline class. No significant associations were found between classes and gender. CONCLUSION: The results underline the complexity of the interplay between multiple victimization experiences, traumatization, and suicide attempts.

Katon, J., K. Mattocks, et al. (2014). "Gestational diabetes and hypertensive disorders of pregnancy among women veterans deployed in service of operations in Afghanistan and Iraq." *J Womens Health (Larchmt)* 23(10): 792-800.

OBJECTIVE: To determine the prevalence of gestational diabetes (GDM) and hypertensive disorders of pregnancy (HDP) among women Veterans using Department of Veterans Affairs (VA) maternity benefits previously deployed in service of Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn (OEF/OIF/OND), and whether pregnancy complications were associated with VA use following delivery. METHODS: We identified the study population through linkage with the Department of Defense roster and VA administrative and clinical data. GDM and HDP were identified by International Classification of Diseases, Ninth Revision codes in VA inpatient or outpatient files. Similarly, we constructed a nationally representative sample of deliveries from the Nationwide Inpatient Sample. We calculated standardized incidence ratios (SIR) adjusted for age and year of delivery to compare rates of GDM and HDP. Proportional hazards regression was used to determine whether pregnancy complications were associated with use of VA following delivery. RESULTS: Between 2001 and 2010, 2,288 women OEF/OIF/OND Veterans used VA maternity benefits; 5.2% had GDM and 9.6% had HDP. Compared with women delivering in the United States, women OEF/OIF/OND Veterans using VA maternity benefits had higher risk of developing GDM (SIR: 1.40; 95% confidence interval [CI] 1.16, 1.68) and HDP (SIR: 1.32; 95% CI 1.15, 1.51). Among women OEF/OIF/OND Veterans using VA maternity benefits, GDM (HR 1.01, 95% CI 0.83, 1.24) and HDP (HR 1.07, 95% CI 0.92, 1.25) were not associated with use of VA following delivery. CONCLUSIONS: Non-VA providers should be aware of their patients' Veteran status and the associated elevated risk for pregnancy complications. Within VA, focused efforts to optimize Veterans' preconception and postpartum health are needed.

Kerns, C. E., R. M. Elkins, et al. (2014). "Caregiver distress, shared traumatic exposure, and child adjustment among area youth following the 2013 Boston Marathon bombing." *J Affect Disord* 167: 50-55.

BACKGROUND: Disasters are associated with myriad negative outcomes in youth, including posttraumatic stress disorder and related psychopathology. Prior work suggests links between caregiver distress and child mental health outcomes following community traumas, but the extent to which caregiver distress is directly linked to post-disaster child functioning, or whether such associations may simply be due to shared traumatic exposure, remains unclear. **METHODS:** The current study examined relationships among caregiver distress, caregiver-child shared traumatic exposure, and child outcomes in Boston-area families (N=460) during the six months following the 2013 Boston Marathon bombing. Parents completed surveys about their and their child's potentially traumatic experiences during the bombing and subsequent manhunt. Post-attack caregiver distress and child psychological functioning were also assessed. **RESULTS:** After accounting for caregiver-child shared traumatic exposure, significant associations were retained between caregiver distress and child functioning across several domains. Furthermore, after accounting for caregiver traumatic exposure, caregiver distress moderated relationships between child traumatic exposure and child posttraumatic stress and conduct problems, such that associations between child traumatic exposure and child posttraumatic stress and conduct problems were particularly strong among children of highly distressed caregivers. **LIMITATIONS:** The cross-sectional design did not permit evaluations across time, and population-based methods were not applied. **CONCLUSIONS:** Findings clarify links between caregiver distress and child psychopathology in the aftermath of disaster and can inform optimal allocation of clinical resources targeting disaster-affected youth and their families.

Kirchner, T., M. Forns, et al. (2014). "Post-traumatic stress problems among poly-victimized Spanish youth: time effect of past vs. recent interpersonal victimizations." *Child Abuse Negl* 38(8): 1303-1312.

The cumulative effect of lifetime interpersonal victimization experiences (e.g., child maltreatment, sexual victimizations, conventional crime, witnessing indirect victimization, peer and sibling victimizations) on posttraumatic stress (PTS) symptoms is an important topic in the scientific literature. The objectives of the present study were: (a) to analyze the relationship between lifetime interpersonal victimizations and PTS symptoms, (b) to determine the most prevalent specific PTS symptoms among poly-victimized adolescents, and (c) to establish the time-based effect of interpersonal victimization experiences that occurred in the last year versus those that occurred years before on current level of PTS symptoms. Gender differences were taken into account for each of these objectives. Participants were 823 Spanish adolescents (63% girls and 37% boys) between 14 and 18 years of age recruited from May 2010 to November 2011 from schools in Barcelona, Spain. The majority (87.6%) was of Spanish nationality. The results highlighted the cumulative effect of interpersonal victimizations on PTS symptoms. Among poly-victims adolescents, the most prevalent PTS symptom was intrusive thoughts, but some differences were observed according to gender. The time-based effect of interpersonal victimizations showed a different pattern for girls and

boys. For girls, the victimizing events occurring in past years had more explanatory power of the current PTS symptoms than those that occurred more recently. In boys, the interpersonal victimizing events occurring in the last year had the greater explanatory power. These results may have clinical and therapeutic value.

Ljungman, L., E. Hoven, et al. (2015). "Does time heal all wounds? A longitudinal study of the development of posttraumatic stress symptoms in parents of survivors of childhood cancer and bereaved parents." *Psychooncology*.

BACKGROUND: A lack of longitudinal studies has hampered the understanding of the development of posttraumatic stress symptoms (PTSS) in parents of children diagnosed with cancer. This study examines level of PTSS and prevalence of posttraumatic stress disorder (PTSD) from shortly after diagnosis up to 5 years after end of treatment or child's death, in mothers and fathers. **METHODS:** A design with seven assessments (T1-T7) was used. T1-T3 were administered during treatment and T4-T7 after end of treatment or child's death. Parents (N = 259 at T1; n = 169 at T7) completed the PTSD Checklist Civilian Version. Latent growth curve modeling was used to analyze the development of PTSS. **RESULTS:** A consistent decline in PTSS occurred during the first months after diagnosis; thereafter the decline abated, and from 3 months after end of treatment only minimal decline occurred. Five years after end of treatment, 19% of mothers and 8% of fathers of survivors reported partial PTSD. Among bereaved parents, corresponding figures were 20% for mothers and 35% for fathers, 5 years after the child's death. **CONCLUSIONS:** From 3 months after end of treatment the level of PTSS is stable. Mothers and bereaved parents are at particular risk for PTSD. The results are the first to describe the development of PTSS in parents of children diagnosed with cancer, illustrate that end of treatment is a period of vulnerability, and that a subgroup reports PTSD 5 years after end of treatment or child's death. (c) 2015 The Authors. *Psycho-Oncology* published by John Wiley & Sons Ltd.

Ma, E. Y. and F. W. Li (2014). "Developmental trauma and its correlates: a study of Chinese children with repeated familial physical and sexual abuse in Hong Kong." *J Trauma Stress* 27(4): 454-460.

The present study examined the relevance of the developmental trauma disorder (DTD) framework (van der Kolk,) in Hong Kong Chinese children with repeated familial physical and/or sexual abuse. Self-reports of (a) key dimensions of DTD including emotion regulation, attribution and perceptions in self and relationships, belief in future victimization, behavioral difficulties, and self-esteem; and (b) attachment styles and posttraumatic stress disorder (PTSD) reactions were obtained from children aged 9-15 years in clinical and school settings. Children were categorized into an abused trauma group (n = 82), a nonabused trauma group (n = 83), and a no-trauma control group (n = 201). The findings indicated that the DTD framework was applicable to abused children who showed a lower level of attachment security (Cohen's d from 0.50-0.61) and a higher level of PTSD reactions (Cohen's d = 0.71) than the comparison groups. After adding attachment security and emotion dysregulation to the model, there were no longer significant group differences in most of the variables.

Meyers, J. L., S. R. Lowe, et al. (2015). "Childhood maltreatment, 9/11 exposure, and latent dimensions of psychopathology: A test of stress sensitization." *J Psychiatr Res*.

On September 11, 2001, a terrorist attack occurred in the U.S. (9/11). Research on 9/11 and psychiatric outcomes has focused on individual disorders rather than the broader internalizing (INT) and externalizing (EXT) domains of psychopathology, leaving unknown whether direct and indirect 9/11 exposure differentially impacted these domains rather than individual disorders. Further, whether such effects were exacerbated by earlier childhood maltreatment (i.e. stress sensitization) is unknown. 18,713 participants from a U.S. national sample with no history of psychiatric disorders prior to 9/11 were assessed using a structured in-person interview. Structural equation modeling conducted in a sample who endorsed no psychiatric history prior to 9/11, indicated that indirect exposure to 9/11 (i.e. media, friends/family) was related to both EXT (alcohol, nicotine, and cannabis dependence, and antisocial personality disorder) and INT (major depression, generalized anxiety, and post-traumatic stress disorder (PTSD)) dimensions of psychopathology (EXT: beta = 0.10, $p < 0.001$; INT: beta = 0.11, $p < 0.001$) whereas direct exposure was associated with the INT dimension only (beta = 0.11, $p < 0.001$). For individuals who had experienced childhood maltreatment, the risk for EXT and INT dimensions associated with 9/11 was exacerbated (Interactions: beta = 0.06, $p < 0.01$; beta = 0.07, $p < 0.001$, respectively). These findings indicate that 9/11 impacted latent liability to broad domains of psychopathology in the US general population rather than specific disorders with the exception of PTSD, which had independent effects beyond INT (as indicated by a significant ($p < 0.05$) improvement in modification indices). Findings also indicated that childhood maltreatment increases the risk associated with adult trauma exposure, providing further evidence for the concept of stress sensitization.

Miller-Archie, S. A., H. T. Jordan, et al. (2014). "Posttraumatic stress disorder and new-onset diabetes among adult survivors of the World Trade Center disaster." *Prev Med* 66: 34-38.

OBJECTIVE: To explore the temporal relationship between 9/11-related posttraumatic stress disorder (PTSD) and new-onset diabetes in World Trade Center (WTC) survivors up to 11 years after the attack in 2001. **METHODS:** Three waves of surveys (conducted from 2003 to 2012) from the WTC Health Registry cohort collected data on physical and mental health status, sociodemographic characteristics, and 9/11-related exposures. Diabetes was defined as self-reported, physician-diagnosed diabetes reported after enrollment. After excluding prevalent cases, there were 36,899 eligible adult enrollees. Logistic regression and generalized multilevel growth models were used to assess the association between PTSD measured at enrollment and subsequent diabetes. **RESULTS:** We identified 2143 cases of diabetes. After adjustment, we observed a significant association between PTSD and diabetes in the logistic model [adjusted odds ratio (AOR) 1.28, 95% confidence interval (CI) 1.14-1.44]. Results from the growth model were similar (AOR 1.37, 95% CI 1.23-1.52). **CONCLUSION:** This exploratory study found that PTSD, a common 9/11-related health outcome, was a risk factor for self-reported diabetes. Clinicians treating survivors of both the WTC attacks and other disasters should be aware that diabetes may be a long-term consequence.

Morof, D. F., S. Sami, et al. (2014). "A cross-sectional survey on gender-based violence and mental health among female urban refugees and asylum seekers in Kampala, Uganda." *Int J Gynaecol Obstet* 127(2): 138-143.

OBJECTIVE: To assess gender-based violence and mental health outcomes among a population of female urban refugees and asylum seekers. **METHODS:** In a questionnaire-based, cross-sectional study conducted in 2010 in Kampala, Uganda, a study team interviewed a stratified random sample of female refugees and asylum seekers aged 15-59 years from the Democratic Republic of Congo and Somalia. Questionnaires were used to collect information about recent and lifetime exposure to sexual and physical violence, and symptoms of depression and post-traumatic stress disorder (PTSD). **RESULTS:** Among the 500 women selected, 117 (23.4%) completed interviews. The weighted lifetime prevalences of experiencing any (physical and/or sexual) violence, physical violence, and sexual violence were 77.5% (95% CI 66.6-88.4), 76.2% (95% CI 65.2-87.2), and 63.3% (95% CI 51.2-75.4), respectively. Lifetime history of physical violence was associated with PTSD symptoms ($P < 0.001$), as was lifetime history of sexual violence ($P = 0.014$). Overall, 112 women had symptoms of depression (weighted prevalence 92.0; 95% CI 83.9-100) and 83 had PTSD symptoms (weighted prevalence 71.1; 95% CI 59.9-82.4). **CONCLUSION:** Prevalences of violence, depression, and PTSD symptoms among female urban refugees in Kampala are high. Additional services and increased availability of psychosocial programs for refugees are needed.

O'Donnell, M. L., N. Alkemade, et al. (2014). "Impact of the diagnostic changes to post-traumatic stress disorder for DSM-5 and the proposed changes to ICD-11." *Br J Psychiatry* 205(3): 230-235.

BACKGROUND: There have been changes to the criteria for diagnosing post-traumatic stress disorder (PTSD) in DSM-5 and changes are proposed for ICD-11. **AIMS:** To investigate the impact of the changes to diagnostic criteria for PTSD in DSM-5 and the proposed changes in ICD-11 using a large multisite trauma-exposed sample and structured clinical interviews. **METHOD:** Randomly selected injury patients admitted to four hospitals were assessed 72 months post trauma ($n = 510$). Structured clinical interviews for PTSD and major depressive episode, as well as self-report measures of disability and quality of life were administered. **RESULTS:** Current prevalence of PTSD under DSM-5 scoring was not significantly different from DSM-IV (6.7% v. 5.9%, $z = 0.53$, $P = 0.59$). However, the ICD-11 prevalence was significantly lower than ICD-10 (3.3% v. 9.0%, $z = -3.8$, $P < 0.001$). The PTSD current prevalence was significantly higher for DSM-5 than ICD-11 (6.7% v. 3.3%, $z = 2.5$, $P = 0.01$). Using ICD-11 tended to show lower rates of comorbidity with depression and a slightly lower association with disability. **CONCLUSIONS:** The diagnostic systems performed in different ways in terms of current prevalence rates and levels of comorbidity with depression, but on other broad key indicators they were relatively similar. There was overlap between those with PTSD diagnosed by ICD-11 and DSM-5 but a substantial portion met one but not the other set of criteria. This represents a challenge for research because the phenotype that is studied may be markedly different according to the diagnostic system used.

Roberts, A. L., K. C. Koenen, et al. (2015). "Association of autistic traits in adulthood with childhood abuse, interpersonal victimization, and posttraumatic stress." *Child Abuse Negl.*

Persons with autistic traits may be at elevated risk for interpersonal victimization across the life course. Children with high levels of autistic traits may be targeted for abuse, and deficits in social awareness may increase risk of interpersonal victimization. Additionally, persons with autistic traits may be at elevated risk of posttraumatic stress disorder (PTSD) symptoms subsequent to trauma. We examined retrospectively reported prevalence of childhood abuse, trauma victimization and PTSD symptoms by autistic traits among adult women in a population-based longitudinal cohort, the Nurses' Health Study II (N=1,077). Autistic traits were measured by the 65-item Social Responsiveness Scale. We estimated odds ratios (OR) for childhood sexual and physical/emotional abuse and PTSD symptoms by quintiles of autistic traits. We examined possible mediation of PTSD risk by abuse and trauma type. Women in the highest versus lowest quintile of autistic traits were more likely to have been sexually abused (40.1% versus 26.7%), physically/emotionally abused (23.9% versus 14.3%), mugged (17.1% versus 10.1%), pressured into sexual contact (25.4% versus 15.6%) and have high PTSD symptoms (10.7% versus 4.5%). Odds of PTSD were elevated in women in the top three quintiles of autistic traits compared with the reference group (OR range=1.4 to 1.9). Childhood abuse exposure partly accounted for elevated risk of PTSD in women with autistic traits. We identify for the first time an association between autistic traits, childhood abuse, trauma victimization, and PTSD. Levels of autistic traits that are highly prevalent in the general population are associated with abuse, trauma and PTSD.

Saxe, J. L. and C. L. Perdue (2015). "Associations between operationally estimated blast exposures and postdeployment diagnoses of postconcussion syndrome and posttraumatic stress disorder." *US Army Med Dep J*: 73-78.

Traumatic brain injuries and other blast-related injuries have been identified as the signature injury of the wars in Iraq and Afghanistan. Some operational units in Iraq, especially those responsible for clearing roadways, were exposed to hundreds of blast incidents and thousands of individual doses of concussive energy during their lengthy deployments. Using operational records maintained by a single command element, the researchers conducted a retrospective cohort study evaluating the association between estimated individual exposures to blasts and the risk for postconcussion syndrome (PCS) and posttraumatic stress disorder (PTSD). Tactical records documented all of the relevant details of the subjects' exposures to blasts during their missions. During the study period there were 313 blasts involving 418 service members resulting in 4,250 blast person events. Of that population, 12.9% were diagnosed with PCS, 8.6% with PTSD, and 5.3% with both. This study suggests that estimating the total individual dosage to concussive forces through physical evidence at the scene could be a useful predictor of future brain-disorder diagnoses. Those in vehicles sustaining heavy blast damage are at increased risk of being diagnosed with PTSD with a rate ratio of 2.79 (95% CI, 1.27-6.13) and PTSD in conjunction with PCS with a rate ratio of 4.10 (95% CI, 1.63-10.28). Standardization of the data collection method for blast incidents and additional follow-up studies could lead to the development of better ways of monitoring operational risk factors for negative health outcomes, plans to intervene in order to minimize health risks, and establish customized follow-up protocols based on specific dosage thresholds.

Seitz, D. C., C. Knaevelsrud, et al. (2014). "Internet-based psychotherapy in young adult survivors of pediatric cancer: feasibility and participants' satisfaction." *Cyberpsychol Behav Soc Netw* 17(9): 624-629.

Abstract The Internet-based psychotherapeutic intervention Onco-STEP for adolescent and young adult (AYA)-aged survivors of pediatric cancer was developed, implemented, and participants' satisfaction was evaluated by use of questionnaires. The intervention consisted of two modules: "Looking Back," aimed to reduce posttraumatic stress symptoms, and "Looking Ahead," supported coping with cancer-related fears of relapse and progression. The writing program was fully completed by 20 participants (Mean=27.3+/-4.8 years at study; 70% female). The majority was satisfied and perceived the treatment components as helpful. Results demonstrate that an Internet-based psychotherapeutic intervention for AYA-aged survivors of pediatric cancer is feasible and accepted by the target population.

Sitdhiraksa, N., V. Piyasil, et al. (2014). "Association of adolescent substance use: behavioral problems and family background among school students in Tsunami affected area in southern Thailand." *J Med Assoc Thai* 97 Suppl 6: S58-65.

OBJECTIVE: To study the prevalence of substance use and associated factors in school students in Tsunami affected areas in southern Thailand. **MATERIAL AND METHOD:** The study was a school-based, cross-sectional, anonymous survey that used a translated questionnaire, ESPAD-03, in 5 schools. Chi-square tests and odds ratios were used to evaluate factors associated with substance use. **RESULTS:** Two thousand seven hundred and sixteen students (87.8%) were enrolled in the study. Lifetime, last 12 months, and last 30 days prevalence rates of any substance use were 50.3, 33.9, and 24.8%, respectively. Lifetime, last 12 months, and last 30 days prevalence rates of alcohol use were 43.2, 30.1, and 17.5%, respectively. Lifetime and last 30 days prevalence rates of smoking were 21.7 and 12.0%. Fighting, stealing, truancy, running away, unsafe sex, and thought of self-harming were associated with alcohol and substance use. Siblings and friends with alcohol and substance use were risk factors. Close support from parents and friends were protective factors. **CONCLUSION:** There was a high prevalence of smoking, alcohol, and substance use among school students in Tsunami affected areas. Behavioral problems and psychosocial risk factors were associated with history of smoking, alcohol and substance use. School-based intervention in students with behavioral problems seems to be a worthwhile investment. However, longitudinal studies should be done to confirm the correlation of PTSD and substance use.

Spinhoven, P., B. W. Penninx, et al. (2014). "Comorbidity of PTSD in anxiety and depressive disorders: prevalence and shared risk factors." *Child Abuse Negl* 38(8): 1320-1330.

The present study aims to assess comorbidity of posttraumatic stress disorder (PTSD) in anxiety and depressive disorders and to determine whether childhood trauma types and other putative independent risk factors for comorbid PTSD are unique to PTSD or shared with anxiety and depressive disorders. The sample of 2402 adults aged 18-65 included healthy controls, persons with a prior history of affective disorders, and persons with a current affective disorder. These individuals were assessed at baseline (T0) and 2 (T2) and 4 years (T4) later. At each wave, DSM-IV-TR based

anxiety and depressive disorder, neuroticism, extraversion, and symptom severity were assessed. Childhood trauma was measured at T0 with an interview and at T4 with a questionnaire, and PTSD was measured with a standardized interview at T4. Prevalence of 5-year recency PTSD among anxiety and depressive disorders was 9.2%, and comorbidity, in particular with major depression, was high (84.4%). Comorbidity was associated with female gender, all types of childhood trauma, neuroticism, (low) extraversion, and symptom severity. Multivariable significant risk factors (i.e., female gender and child sexual and physical abuse) were shared among anxiety and depressive disorders. Our results support a shared vulnerability model for comorbidity of anxiety and depressive disorders with PTSD. Routine assessment of PTSD in patients with anxiety and depressive disorders seems warranted.

Valenstein, M., L. Gorman, et al. (2014). "Reported barriers to mental health care in three samples of U.S. Army National Guard soldiers at three time points." *J Trauma Stress* 27(4): 406-414.

The military community and its partners have made vigorous efforts to address treatment barriers and increase appropriate mental health services use among returning National Guard soldiers. We assessed whether there were differences in reports of treatment barriers in 3 categories (stigma, logistics, or negative beliefs about treatment) in sequential cross-sectional samples of U.S. soldiers from a Midwestern Army National Guard Organization who were returning from overseas deployments. Data were collected during 3 time periods: September 2007-August 2008 (n = 333), March 2009-March 2010 (n = 884), and August 2011-August 2012 (n = 737). In analyses using discretized time periods and in trend analyses, the percentages of soldiers endorsing negative beliefs about treatment declined significantly across the 3 sequential samples (19.1%, 13.9%, and 11.1%). The percentages endorsing stigma barriers (37.8%, 35.2%, 31.8%) decreased significantly only in trend analyses. Within the stigma category, endorsement of individual barriers regarding negative reactions to a soldier seeking treatment declined, but barriers related to concerns about career advancement did not. Negative treatment beliefs were associated with reduced services use (OR = 0.57; 95% CI [0.33, 0.97]).

van Meijel, E. P., M. R. Gigengack, et al. (2015). "Predicting posttraumatic stress disorder in children and parents following accidental child injury: evaluation of the Screening Tool for Early Predictors of Posttraumatic Stress Disorder (STEPP)." *BMC Psychiatry* 15(1): 113.

BACKGROUND: Children and their parents are at risk of posttraumatic stress disorder (PTSD) following injury due to pediatric accidental trauma. Screening could help predict those at greatest risk and provide an opportunity for monitoring so that early intervention may be provided. The purpose of this study was to evaluate the Screening Tool for Early Predictors of Posttraumatic Stress Disorder (STEPP) in a mixed-trauma sample in a non-English speaking country (the Netherlands). **METHODS:** Children aged 8-18 and one of their parents were recruited in two academic level I trauma centers. The STEPP was assessed in 161 children (mean age 13.9 years) and 156 parents within one week of the accident. Three months later, clinical diagnoses and symptoms of PTSD were assessed in 147 children and 135 parents. We used the Anxiety Disorders Interview Schedule for DSM-IV - Child and Parent version, the Children's Revised Impact of Event Scale and the Impact of

Event Scale-Revised. Receiver Operating Characteristic analyses were performed to estimate the Areas Under the Curve as a measure of performance and to determine the optimal cut-off score in our sample. Sensitivity, specificity, positive and negative predictive values were calculated. The aim was to maximize both sensitivity and negative predictive values. RESULTS: PTSD was diagnosed in 12% of the children; 10% of their parents scored above the cut-off point for PTSD. At the originally recommended cut-off scores (4 for children, 3 for parents), the sensitivity in our sample was 41% for children and 54% for parents. Negative predictive values were 92% for both groups. Adjusting the cut-off scores to 2 improved sensitivity to 82% for children and 92% for parents, with negative predictive values of 92% and 96%, respectively. CONCLUSIONS: With adjusted cut-off scores, the STEPP performed well: 82% of the children and 92% of the parents with a subsequent positive diagnosis were identified correctly. Special attention in the screening procedure is required because of a high rate of false positives. The STEPP appears to be a valid and useful instrument that can be used in the Netherlands as a first screening method in stepped psychotrauma care following accidents.

Verelst, A., M. De Schryver, et al. (2014). "Mental health of victims of sexual violence in eastern Congo: associations with daily stressors, stigma, and labeling." *BMC Womens Health* 14: 106.

BACKGROUND: The conflict-ridden context of eastern Congo has set the scene for grueling human rights violations, with sexual violence as one of the 'weapons of war'. Currently, sexual violence continues, with a considerable increase in civilian perpetrators. However, little is known regarding the particular impact of different experiences of sexual violence on adolescents' mental health. This study therefore investigates the impact of sexual violence on eastern Congolese adolescents' mental health and its differing associations with daily stressors, stigma, and the labeling of sexual violence (as 'rape' or 'non-consensual sexual experience'). METHODS: A cross-sectional, population-based survey design was implemented in 22 secondary schools, randomly selected from a stratified sample, in Bunia, eastern Congo, a region extensively affected by war. A total of 1,305 school-going adolescent girls aged 11 to 23 participated. Self-report measures of mental health symptoms, war-related traumatic events, experiences of sexual violence, daily stressors, and stigmatization were administered. Differences in sociodemographic characteristics, traumatic experiences and daily and social stressors between types of sexual violence (rape, non-consensual sexual violence, no sexual violence) were explored through statistical analysis. ANCOVA analyses investigated associations between those risk factors and adolescents' mental health. RESULTS: More than one third of eastern Congolese adolescent girls reported experiences of sexual violence. Elevated levels of daily stressors, experiences of stigmatization, and stressful war-related events were found amongst girl victims of sexual violence, with the highest levels for girls who labeled the sexual violence as rape. Daily stressors, stigmatization, and war-related events showed a large impact on the girls' mental health. Last, girls who labeled the sexual violence as non-consensual sexual experiences reported more post-traumatic hyper-arousal and intrusion symptoms compared to those labeling the sexual violence as rape. CONCLUSIONS: These findings point to the important association between how war-affected adolescent girls label sexual violence (rape or non-consensual sexual experiences) and their mental health. This study also documents the large impact

of sexual violence on other stressors (daily stressors, stigmatization, and stressful war events) and the impact of these stressors on girl victims' mental health. It discusses important implications for addressing sexual violence and its consequences in war-affected contexts.

Verlinden, E., Y. L. van Laar, et al. (2014). "A parental tool to screen for posttraumatic stress in children: first psychometric results." *J Trauma Stress* 27(4): 492-495.

The Children's Revised Impact of Event Scale (CRIES-13) is a brief self-report measure designed to screen children for posttraumatic stress disorder (PTSD). This study investigates the psychometric properties of a Dutch version of the CRIES-13-parent version and evaluates its correlation with the child version. A sample of 59 trauma-exposed children (8 years-18 years) and their parents completed an assessment including the CRIES-13 (child/parent version) along with the Anxiety Disorders Interview Schedule for DSM-IV: Parent version. Results demonstrated good internal consistency ($\alpha = .87$) with acceptable values for the 3 subscales. A strong correlation ($r = .73$) with another measure of PTSD and lower correlations with a behavioral measure ($r = .15$ to $.38$) were found, confirming the convergent/divergent validity. A cutoff score ≥ 31 emerged as the best balance between sensitivity and specificity, and correctly classified 83.6% of all children as having a diagnosis of PTSD. This study provides support for the reliability and validity of the CRIES-13-parent version as a screening measure for posttraumatic stress in children.

Whalen, R. J. (2015). "Predicting willingness to report behavioral health problems and seek treatment among US male soldiers deployed to Afghanistan: a retrospective evaluation." *US Army Med Dep J*: 88-92.

This retrospective evaluation explores anonymous survey data to identify predictors of Soldier willingness to report and seek treatment for behavioral health problems during screening mandated by the Department of Defense (DoD). After controlling for stigma and barriers to care concerns, Soldiers with high (+1SD) combat exposure and high (+1SD) levels of posttraumatic stress symptoms were significantly more willing to report these symptoms during DoD-mandated screening. Furthermore, Soldiers who perceived that their unit leaders took action on anonymous Unit Behavioral Health Needs Assessment survey findings were significantly more likely to report a willingness to disclose behavioral health problems and seek treatment for the same. Performance improvement considerations are discussed.

Wolf, E. J., K. S. Mitchell, et al. (2014). "The dopamine D3 receptor gene and posttraumatic stress disorder." *J Trauma Stress* 27(4): 379-387.

The dopamine D3 receptor (DRD3) gene has been implicated in schizophrenia, autism, and substance use-disorders and is related to emotion reactivity, executive functioning, and stress-responding, processes impaired in posttraumatic stress disorder (PTSD). The aim of this candidate gene study was to evaluate DRD3 polymorphisms for association with PTSD. The discovery sample was trauma-exposed White, non-Hispanic U.S. veterans and their trauma-exposed intimate partners ($N = 491$); 60.3% met criteria for lifetime PTSD. The replication sample was 601 trauma-exposed African American participants living in Detroit, Michigan; 23.6% met criteria for lifetime PTSD.

Genotyping was based on high-density bead chips. In the discovery sample, 4 single nucleotide polymorphisms (SNPs), rs2134655, rs201252087, rs4646996, and rs9868039, showed evidence of association with PTSD and withstood correction for multiple testing. The minor alleles were associated with reduced risk for PTSD (OR range = 0.59 to 0.69). In the replication sample, rs2251177, located 149 base pairs away from the most significant SNP in the discovery sample, was nominally associated with PTSD in men (OR = 0.32). Although the precise role of the D3 receptor in PTSD is not yet known, its role in executive functioning and emotional reactivity, and the sensitivity of the dopamine system to environmental stressors could potentially explain this association.

Yi, J. and M. A. Kim (2014). "Postcancer experiences of childhood cancer survivors: how is posttraumatic stress related to posttraumatic growth?" *J Trauma Stress* 27(4): 461-467.

Understanding posttraumatic growth (PTG) and the factors associated with PTG among cancer survivors is important to improve their quality of life. This study examined PTG among 225 Korean adolescents and young adults between 15 years and 39 years of age who survived childhood cancer (58.5% males and 41.5% females). We explored the relationships between PTG and several sociodemographic and medical variables, and whether the relationships between PTG and posttraumatic stress disorder (PTSD) symptoms were linear or curvilinear. The Posttraumatic Stress Diagnostic Scale (PDS) and the Posttraumatic Growth Inventory (PTGI) were used to assess PTSD symptoms and PTG, respectively. In addition to the effects of sociodemographic and medical variables, there were linear effects of PDS on PTGI (R^2 change = .03, $p = .008$). No evidence of a curvilinear relationship between PDS and PTGI was found. Higher PDS scores were associated with lower PTGI scores ($\beta = -.18$). Older age ($\beta = .41$) and shorter time since diagnosis ($\beta = -.42$) were associated with greater PTGI. Understanding the factors that were associated with PTG among Korean adolescent and young adult survivors of cancer adds to the knowledge on PTG and may help develop services to promote PTG in this group.

Zhang, L., X. Z. Hu, et al. (2014). "The interaction between stressful life events and leukocyte telomere length is associated with PTSD." *Mol Psychiatry* 19(8): 855-856.

Zhang, W., H. Liu, et al. (2014). "A longitudinal study of posttraumatic stress disorder symptoms and its relationship with coping skill and locus of control in adolescents after an earthquake in China." *PLoS One* 9(2): e88263.

BACKGROUND/OBJECTIVES: Post-traumatic stress disorder is a common psychological maladaptation among adolescents after undergoing an earthquake. Knowledge about the prevalence and maintenance of post-traumatic stress disorder symptoms and the changes of its predictors over time can help medical providers assist adolescent survivors with mitigating long-term impacts. This study examined the changes in posttraumatic stress disorder symptoms and its relationship with coping skill and locus of control among adolescent earthquake survivors in China. **METHODOLOGY/FINDINGS:** The study used an observational longitudinal design. A total of 1420 adolescents were evaluated twice after the earthquake by using the Post-traumatic stress disorder Checklist-Civilian Version, The Internality, Powerful others and Chance scale and the Coping Styles

Scale. The results indicated that the mean scores of posttraumatic stress disorder symptoms were decreased significantly and the positive rates of posttraumatic stress disorder symptoms also declined remarkably at 17 months compared to the 3 months post-earthquake. Internality locus of control and problem solving coping skill were effective resilient factors for the development and maintenance of posttraumatic stress disorder symptoms, while chance locus of control was a powerful risk factor of posttraumatic stress disorder symptoms as well as being female, being injured and property loss. CONCLUSIONS/SIGNIFICANCE: Continuous screening is recommended to identify adolescent earthquake survivors with posttraumatic stress disorder symptoms. More attention should be paid to adolescent survivors who are prone to adopt passive coping strategies responding to trauma events and who own external causal attribution.

Zhou, X., X. Wu, et al. (2015). "Longitudinal linkages between posttraumatic stress disorder and posttraumatic growth in adolescent survivors following the Wenchuan earthquake in China: A three-wave, cross-lagged study." *Psychiatry Res* 228(1): 107-111.

The aim of this study is to examine the longitudinal relationships between posttraumatic stress disorder (PTSD) and posttraumatic growth (PTG) among adolescent survivors of the 2008 Wenchuan earthquake in China. The participants in our study included 245 adolescent survivors who were randomly selected from several primary and secondary schools in the counties of Wenchuan, which are the areas most severely affected by the Wenchuan earthquake. Participants completed the Revised Child PTSD Symptom Scale and the Posttraumatic Growth Inventory (PTGI) at 3.5 years after the earthquake (T1), 4.5 years after the earthquake (T2), and 5.5 years after the earthquake (T3). The results found that PTSD reported in T1 and T2 predicted subsequent PTG reported at T2 and T3 and that PTG did not predict PTSD from T1 to T3. In addition, the cross-sectional correlation between PTSD and PTG weakened from T1 to T3. These results indicate that PTSD and PTG can coexist in individuals after a traumatic experience, and they further suggest that the reduction in PTSD does not indicate the appearance of PTG.