

May 2015 PILOTS Topic Alert

Alicic, E., A. Barrett, et al. (2015). "Ear for recovery: protocol for a prospective study on parent-child communication and psychological recovery after paediatric injury." *BMJ Open* 5(2).

INTRODUCTION: One in six children who have been admitted to hospital with an injury develop persistent stress symptoms that put their development at risk. Parents play a crucial role in children's psychological recovery, however, it is unknown how specific parenting behaviours can help or hinder. We aim to describe the nature and quantity of parent-child communication after a child has been injured, and to examine how these interactions are related to children's psychological recovery. **METHODS AND ANALYSIS:** We are conducting a prospective observational study among children aged 3-16 years, who have been admitted to a tertiary children's hospital with a serious injury. Data collection involves a naturalistic observation of spontaneous, everyday parent-child communication at home, shortly after discharge, and an assessment of children's psychological recovery at 6 weeks and 3 months post-injury. Main analyses comprise descriptive statistics, cluster analysis and analyses of variance. **ETHICS AND DISSEMINATION:** This study has been approved by the Human Research Ethics Committee of the Royal Children's Hospital Melbourne (33103) and Monash University Human Research Ethics Committee (CF13/2515-2013001322). We aim to disseminate the findings through international peer-reviewed journals, international conferences and social media. Participants will be sent a summary of the overall study findings. [Author Abstract]

Anderson, C. A. and M. Gill (2014). "Childbirth related fears and psychological birth trauma in younger and older age adolescents." *Applied Nursing Research* 27(4): 242-248.

AIM: The aim of this study is to explore childbirth fears on psychological birth trauma (PBT) by adolescent age. **BACKGROUND:** Among adults parity and intrapartum fears including fear of dying, loss of control, pain, and limited support have been associated with negative birth appraisal and symptoms of traumatic stress, defined here as PBT. **METHODS:** This cross-sectional study surveyed a convenience sample of 201 adolescents at a large, county hospital. **RESULTS:** Over 75% of adolescents perceived fear. Younger and older adolescents, similar in fears, were distinguished only by parity. The effects of parity, overall rating of fear, and father of baby absence were found to vary by age on birth appraisal; however, only parity varied by age on IES scores. **CONCLUSIONS:** All age adolescents can be fearful and will benefit with childbirth education and labor support to help reduce fears and subsequent PBT. [Author Abstract] **KEY WORDS:** fear; psychological birth trauma; adolescents

Bader, H. N., L. M. Bierer, et al. (2014). "Maternal age at Holocaust exposure and maternal PTSD independently influence urinary cortisol levels in adult offspring." *Frontiers in Endocrinology* 5.

BACKGROUND: Parental traumatization has been associated with increased risk for the expression of psychopathology in offspring, and maternal posttraumatic stress disorder (PTSD) appears to increase the risk for the development of offspring PTSD. In this study, Holocaust-related maternal age of exposure and PTSD were evaluated for their association with offspring ambient cortisol and PTSD-associated symptom expression. **METHOD:** Ninety-five Holocaust offspring and Jewish comparison subjects received diagnostic and psychological evaluations, and 24h urinary cortisol was assayed by RIA. Offspring completed the parental PTSD questionnaire to assess maternal PTSD status. Maternal Holocaust exposure was identified as having occurred in childhood, adolescence, or adulthood and examined in relation to offspring psychobiology. **RESULTS:** Urinary cortisol levels did not differ for Holocaust offspring and comparison subjects but differed significantly in offspring based on maternal age of exposure and maternal PTSD status. Increased maternal age of exposure and maternal PTSD were each associated with lower urinary cortisol in offspring, but did not exhibit a significant interaction. In addition, offspring PTSD-associated symptom severity increased with maternal age at exposure and PTSD diagnosis. A regression analysis of correlates of offspring cortisol indicated that both maternal age of exposure and maternal PTSD were significant predictors of lower offspring urinary cortisol, whereas childhood adversity and offspring PTSD symptoms were not. **CONCLUSION:** Offspring low cortisol and PTSD-associated symptom expression are related to maternal age of exposure, with the greatest effects associated with increased age at exposure. These effects are relatively independent of the negative consequences of being raised by a trauma survivor. These observations highlight the importance of maternal age of exposure in determining a psychobiology in offspring that is consistent with increased risk for stress-related pathology. [Author Abstract] **KEY WORDS:** maternal; PTSD; risk; cortisol; intergenerational; Holocaust; offspring; trauma

Beck, C. T. (2015). "Middle range theory of traumatic childbirth: the ever-widening ripple effect." *Global Qualitative Nursing Research* 2.

A middle range theory of traumatic childbirth was developed using Morse's method of theoretical coalescence. The scope of this qualitative theory was increased by formalizing the connections between 14 individual studies all conducted by the same researcher on the same topic, with different groups, using different research designs and different types of analyses. Axioms were derived from this research program along with attributes of traumatic childbirth, posttraumatic stress, and secondary traumatic stress. This middle range theory addresses the long-term chronic consequences of a traumatic birth for mothers including its impact on breastfeeding, subsequent childbirth, and the anniversary of birth trauma. The impact on fathers and clinicians present at the traumatic birth is highlighted as secondary traumatic stress comes into play. Troubling glimpses of difficulties in mother-infant bonding are revealed. [Author Abstract] **KEY WORDS:** childbirth; mothers; mothering; postpartum care; PTSD; theory development; trauma

Becker, S. J., R. R. Swenson, et al. (2014). "Barriers to seeking mental health services among adolescents in military families." *Professional Psychology: Research and Practice* 45(6): 504-513.

Military families with adolescents experience high levels of stress associated with parental deployment, but many of these families do not seek or utilize mental health services. The current qualitative study was designed to better understand barriers to mental health treatment experienced by adolescents in military families. Focus groups and individual interviews were conducted with military adolescents (n = 13), military (nonenlisted) parents (n = 12), and mental health service providers who treat adolescents in military families (n = 20). Discussions primarily explored barriers to seeking treatment, with supplemental questions assessing the ideal elements of mental health services for this population. Seven barriers to engaging in mental health services were identified: 4 internal (confidentiality concerns, stigma, ethic of self-reliance, lack of perceived relevance) and 3 external (time and effort concerns, logistical concerns, financial concerns). Challenges engaging military adolescents in mental health services are discussed and several recommendations are offered for service providers attempting to work with this population. [Author Abstract] KEY WORDS: military; adolescents; barriers; mental health

Begemann, M. J. H., M. J. L. Schutte, et al. (2015). "Childhood trauma-specific reductions in limbic gray matter volume: still in the dark [letter]." *JAMA Psychiatry* 72(4): 398-399.

A commentary and response by the original authors on: Nicholas T. Van Dam, Kenneth Rando, Marc N. Potenza, Keri Tuit, and Rajita Sinha, "Childhood Maltreatment, Altered Limbic Neurobiology, and Substance Use Relapse Severity via Trauma-specific Reductions in Limbic Gray Matter Volume", *JAMA Psychiatry* 71(8): 917-925 (August 2014) doi:10.1001/jamapsychiatry.2014.680 [42466].

Berntsen, D. and D. C. Rubin (2014). "Involuntary memories and dissociative amnesia: assessing key assumptions in PTSD research." *Clinical Psychological Science* 2(2): 174-186.

Autobiographical memories of trauma victims are often described as disturbed in two ways. First, the trauma is frequently re-experienced in the form of involuntary, intrusive recollections. Second, the trauma is difficult to recall voluntarily (strategically); important parts may be totally or partially inaccessible—a feature known as dissociative amnesia. These characteristics are often mentioned by PTSD researchers and are included as PTSD symptoms in the DSM-IV-TR (American Psychiatric Association, 2000). In contrast, we show that both involuntary and voluntary recall are enhanced by emotional stress during encoding. We also show that the PTSD symptom in the diagnosis addressing dissociative amnesia, trouble remembering important aspects of the trauma is less well correlated with the remaining PTSD symptoms than the conceptual reversal of having trouble forgetting important aspects of the trauma. Our findings contradict key assumptions that have shaped PTSD research over the last 40 years. [Author Abstract] KEY WORDS: autobiographical memory; PTSD; memory; diagnosis

Bielas, H., A. Jud, et al. (2015). "Preliminary evidence for a compromised T-cell compartment in maltreated children with depression and posttraumatic stress disorder." *Neuroimmunomodulation*.

OBJECTIVE: Adverse childhood experiences, such as maltreatment, and affective disorders are associated with a proinflammatory state and/or variably compromised counts in lymphocyte

subsets in adults. Animal models of social stress indicate that recent thymic emigrant cells (RTE), which maintain the T-cell compartment, are affected. **METHODS:** In this study, we examined the association between lymphocyte subsets, and depression and posttraumatic stress disorder (PTSD) among 16 maltreated children (aged 6-17 years) 1-3 years after the intervention by the Child Protection Team and among 14 healthy age-matched controls. The participants completed psychological assessment and had blood drawn for fluorescent-activated cell sorting analysis. **RESULTS:** Among maltreated children and adolescents, depression was associated with lower counts of RTEs and T-helper cells after controlling for age. We found additional trends and large effect sizes with regard to the percentages of these cells, as well as for related lymphocyte subsets. Similar effects were found for PTSD, i.e. lower counts of naive T cells, which was also supported by a trend for their percentage. Compared to controls, maltreated participants with a clinical level of depression had decreased percentages of RTEs, with a similar trend for PTSD. **CONCLUSION:** Limited by the nature of a pilot study and the small sample size, these preliminary findings of a compromised T-cell compartment related to psychiatric symptoms in maltreated children and adolescents need to be further studied; particularly the role of RTEs needs further evaluation. [Author Abstract] **KEY WORDS:** adverse childhood experiences; child maltreatment; depression; PTSD; recent thymic emigrant cells; T cells

Bracken-Scally, M., S. McGilloway, et al. (2014). "Life after the Emergency Services: an exploratory study of well being and quality of life in Emergency Service retirees." *International Journal of Emergency Mental Health and Human Resilience* 16(1): 44-51.

Much is known about the negative impact of emergency services work, but no studies, to date, have investigated its long-term consequences. This cross-sectional study assesses the possible long-term effects on quality of life, of trauma exposure and emergency work in a sample of retirees from the Irish emergency services (n=169) and a comparison group of non-emergency service retirees (n=140). A multi-questionnaire postal survey was administered to assess quality of life (QoL; WHOQOL-BREF), experiences of trauma, and trauma symptoms (PSS-SR). QoL was significantly better in non-emergency retirees, whilst this group also had significantly fewer trauma symptoms. Incidents involving children were identified by a large proportion of emergency retirees as being particularly difficult to manage. The findings address a significant gap in our knowledge around the possible longer term effects of emergency services work in an often neglected sub-group. Factors associated with increased QoL and reduced symptoms of PTSD are discussed, as are some possible recommendations for the future. [Author Abstract] **KEY WORDS:** emergency services; trauma exposure; PTSD; quality of life; mental health; healthy ageing

Derivois, D., J.-M. Cenat, et al. (2014). "Multi-natural disasters in Gonaïves Haiti: long-term outcomes among child and adolescents and social support." *International Journal of Emergency Mental Health and Human Resilience* 16(2): 79-83.

In this article, we posit the hypothesis that the January 2010 earthquake in Port-au-Prince reawakened a number of traumas linked to the natural disasters that struck Gonaïves in 2004 and 2008. The study set out to evaluate the PTSD and social support in the affected areas in Gonaïves

seven years after the disasters. The study covered a sample of 917 participants, of whom 534 (58.23%) were females, aged between 10 and 23 with an average age of 16.03 (SD = 2.65). A variety of scales were used: the Clinician Administered PTSD Scale (CAPS-1); the Traumatic Exposure Severity Scale (TESS); the PTSD Check-List Civilian version (PCL-C); the Impact of Event Scale Revised (IES-R) and the Social Support Questionnaire (SSQ). The results reveal a higher rate of PTSD among the oldest participants, a similarly higher rate of social support among Catholics than among Protestants, a more severe rate of PTSD among school going children and a positive correlation between social support and PTSD. [Author Abstract] KEY WORDS: Haiti; natural disasters; PTSD

Diehle, J., C. De Roos, et al. (2015). "The Dutch version of the Child Posttraumatic Cognitions Inventory: validation in a clinical sample and a school sample." *European Journal of Psychotraumatology* 6.

BACKGROUND: With the inclusion of trauma-related cognitions in the DSM-5 criteria for posttraumatic stress disorder (PTSD), the assessment of these cognitions has become essential. Therefore, valid tools for the assessment of these cognitions are warranted. **OBJECTIVE:** The current study aimed at validating the Dutch version of the Child Posttraumatic Cognitions Inventory (CPTCI). **METHOD:** We included children aged 8-19 years in our study and assessed the factor structure, reliability and validity of the CPTCI in a clinical sample (n=184) and a school sample (n=318). **RESULTS:** Our results supported the two-factor structure of the CPTCI and showed good internal consistency for the total scale and the two subscales. We found significant positive correlations between the CPTCI and measures of PTSD, depression, and anxiety disorder. The CPTCI correlated negatively with a measure of quality of life. Furthermore, we found significantly higher scores in the clinical sample than in the school sample. For children who received treatment, we found that a decrease in CPTCI scores was accompanied by a decrease in posttraumatic stress symptoms and comorbid problems indicating that the CPTCI is able to detect treatment effects. **CONCLUSION:** Overall, our results suggest that the Dutch CPTCI is a reliable and valid instrument. [Author Abstract] KEY WORDS: PTSD; children; cognitions; reliability; validity

Edey, R. A. (2014). "The 12 steps of Alcoholics Anonymous as an adjunctive treatment for trauma survivors: an experimental approach." *International Journal of Emergency Mental Health and Human Resilience* 16(2): 108-110.

BACKGROUND and METHOD: The consequences of surviving trauma are complex, making it difficult to formulate a recovery and treatment plan. The most common defense mechanism, and the toughest one to work through, is denial. Throughout human history, lack of knowledge and non-acceptance of the perpetrators misdeeds has placed the suffering of survivors behind an armored wall, perpetuating traumatic effects. No recovery can occur behind this wall of forced silence, ignorance and lack of helpful resources. Over the last two decades, research has revealed the frequency of traumatic events, and their injurious effects on a survivor's psyche. Mental health professionals have come to understand the connections between unresolved trauma and serious psychological problems. The role of spirituality in trauma recovery is often misunderstood and subsequently minimized. Trauma survivors usually have a difficult time experiencing their

vulnerability and the attending feelings of having once been profoundly helpless and alone. The process of unearthing one's memories and re-experiencing anguish requires the help of skilled, knowledgeable and spiritually grounded professionals who have done healing work on themselves. Interest and research on the healing effects of applying spiritual tools to the multi-layered consequences of trauma survival - including emotional pain, and interpersonal difficulties - has burgeoned. This is a case report discussing the efficacy of the 12 Steps of Alcoholics Anonymous to address and heal the root causes and conditions of dysfunctional behaviors, lack of meaning in life, and persistent psychic pain. RESULTS: The primary outcome measure was the client's self-report on improved affect regulation, reduced depression, decrease in maladaptive behaviors, decreased sense of helplessness and hopelessness, increased sense of personal accountability, meaning and purpose in life, and greater ability to modulate arousal; both physical and emotional. [Author Abstract] KEY WORDS: trauma; pain; spirituality; bio-psychosocial-spiritual model

Franck, L. S., J. Wray, et al. (2015). "Predictors of parent post-traumatic stress symptoms after child hospitalization on general pediatric wards: a prospective cohort study." *International Journal of Nursing Studies* 52(1): 10-21.

OBJECTIVE: The aim of this study was to identify predictors of parental post-traumatic stress symptoms following child hospitalization. This paper reports the main findings of the StayClose Study. METHODS: In this prospective cohort study, a sample of 107 parents completed questionnaires during their child's hospitalization on pediatric (non-intensive care) wards and again three months after discharge. Eligible parents had a child expected to be hospitalized for three or more nights. Standardized questionnaires were used to assess parent distress during the child's hospitalization, parent coping strategies and resources, and symptoms of post-traumatic stress after the hospitalization. Correlations and multiple regressions were used to determine whether parent distress during hospitalization and coping strategies and resources predicted post-traumatic stress symptoms three months after the child's discharge, while controlling for relevant covariates. RESULTS: Three months after the child's hospital discharge, 32.7% of parents (n = 35) reported some degree of post-traumatic stress symptoms, and 21.5% (n = 23) had elevated (≥ 34) scores consistent with a probable diagnosis of post-traumatic stress disorder. In the multivariable model, parent anxiety and uncertainty during hospitalization and use of negative coping strategies, such as denial, venting and self-blame, were associated with higher post-traumatic stress symptoms scores at three months post-discharge, even after controlling for the child's health status. Parental anxiety and depression during hospitalization moderated the relationship between negative coping strategies and post-traumatic stress symptoms. CONCLUSIONS: More than one quarter of parents of children hospitalized on pediatric (non-intensive care) wards experienced significant post-traumatic stress symptoms after their child's discharge. Parents' hospital-related anxiety, uncertainty and use of negative coping strategies are potentially modifiable factors that most strongly influenced post-traumatic stress symptoms. Further research is urgently needed to test the effectiveness of different methods to provide psychological, emotional and instrumental support for parents, focusing on increasing parent coping resources and reducing distress during hospitalization. [Author Abstract]

KEY WORDS: anxiety; child hospitalization; coping; depression; parents; post-traumatic stress symptoms; uncertainty

Frewen, P. A., M. F. D. Brown, et al. (2015). "Latent profile analysis and principal axis factoring of the DSM-5 dissociative subtype." *European Journal of Psychotraumatology* 6.

OBJECTIVE: A dissociative subtype has been recognized based on the presence of experiences of depersonalization and derealization in relation to DSM-IV posttraumatic stress disorder (PTSD). However, the dissociative subtype has not been assessed in a community sample in relation to the revised DSM-5 PTSD criteria. Moreover, the 20-item PTSD Checklist for DSM-5 (PCL-5) currently does not assess depersonalization and derealization. **METHOD:** We therefore evaluated two items for assessing depersonalization and derealization in 557 participants recruited online who endorsed PTSD symptoms of at least moderate severity on the PCL-5. **RESULTS:** A five-class solution identified two PTSD classes who endorsed dissociative experiences associated with either 1) severe or 2) moderate PTSD symptom severity (D-PTSD classes). Those in the severe dissociative class were particularly likely to endorse histories of childhood physical and sexual abuse. A principal axis factor analysis of the symptom list identified six latent variables: 1) Reexperiencing, 2) Emotional Numbing/Anhedonia, 3) Dissociation, 4) Negative Alterations in Cognition & Mood, 5) Avoidance, and 6) Hyperarousal. **CONCLUSIONS:** The present results further support the presence of a dissociative subtype within the DSM-5 criteria for PTSD. [Author Abstract] **KEY WORDS:** PTSD; dissociative subtype; dissociation; trauma-related altered states of consciousness; psychological trauma

Gutermann, J., F. Schreiber, et al. (2015). "Therapeutic adherence and competence scales for developmentally adapted cognitive processing therapy for adolescents with PTSD." *European Journal of Psychotraumatology* 6.

BACKGROUND: The assessment of therapeutic adherence and competence is often neglected in psychotherapy research, particularly in children and adolescents; however, both variables are crucial for the interpretation of treatment effects. **OBJECTIVE:** Our aim was to develop, adapt, and pilot two scales to assess therapeutic adherence and competence in a recent innovative program, Developmentally Adapted Cognitive Processing Therapy (D-CPT), for adolescents suffering from posttraumatic stress disorder (PTSD) after childhood abuse. **METHOD:** Two independent raters assessed 30 randomly selected sessions involving 12 D-CPT patients (age 13-20 years, M age=16.75, 91.67% female) treated by 11 therapists within the pilot phase of a multicenter study. **RESULTS:** Three experts confirmed the relevance and appropriateness of each item. All items and total scores for adherence (intraclass correlation coefficients [ICC]=0.76-1.00) and competence (ICC=0.78-0.98) yielded good to excellent inter-rater reliability. Cronbach's alpha was 0.59 for the adherence scale and 0.96 for the competence scale. **CONCLUSIONS:** The scales reliably assess adherence and competence in D-CPT for adolescent PTSD patients. The ratings can be helpful in the interpretation of treatment effects, the assessment of mediator variables, and the identification and training of therapeutic skills that are central to achieving good treatment outcomes. Both adherence and competence will be assessed as possible predictor variables for treatment success in future D-

CPT trials. [Author Abstract] KEY WORDS: cognitive processing therapy; D-CPT; PTSD; therapeutic competence; treatment integrity; adolescents

Hankin, B. L., L. S. Badanes, et al. (2015). "Cortisol reactivity to stress among youth: stability over time and genetic variants for stress sensitivity." *Journal of Abnormal Psychology* 124(1): 54-67.

Stress sensitivity may be one process that can explain why some genetically at-risk individuals are more susceptible to some types of stress-reactive psychopathologies. Dysregulation of the limbic-hypothalamic-pituitary-adrenal (LHPA) axis, including cortisol reactivity to challenge, represents a key aspect of stress sensitivity. However, the degree of stability over time among youth, especially differential stability as a function of particular genetic variants, has not been investigated. A general community sample of children and adolescents (mean age = 11.4; 56% girls) provided a DNA sample and completed 2 separate laboratory stress challenges, across an 18-month follow-up (N = 224 at Time 1; N = 194 at Time 2), with repeated measures of salivary cortisol. Results showed that test-retest stability for several indices of cortisol reactivity across the laboratory challenge visits were significant and of moderate magnitude for the whole sample. Moreover, gene variants of several biologically plausible systems relevant for stress sensitivity (especially 5-HTTLPR and CRHR1) demonstrated differential stability of cortisol reactivity over 18-months, such that carriers of genotypes conferring enhanced environmental susceptibility exhibited greater stability of cortisol levels over time for some LHPA axis indices. Findings suggest that LHPA axis dysregulation may exhibit some trait-like aspects underlying stress sensitivity in youth, especially for those who carry genes related to greater genetic susceptibility to environmental stress. [Author Abstract] KEY WORDS: cortisol reactivity to stress; youth; genetics; stress sensitivity

Iverson, K. M., M. W. King, et al. (2015). "Rape survivors' trauma-related beliefs before and after cognitive processing therapy: associations with PTSD and depression symptoms." *Behaviour Research and Therapy* 66: 49-55.

This study examined whether cognitive distortions (i.e., assimilated and overaccommodated thoughts) and realistic (i.e., accommodated) thoughts assessed from impact statements written 5-10 years after completing cognitive processing therapy (CPT) accurately predicted posttreatment maintenance or decline in treatment gains during the same period. The sample included 50 women diagnosed with posttraumatic stress disorder (PTSD) secondary to rape who participated in a randomized clinical trial of CPT for PTSD. Cognitions were assessed via coding and analyses of participants' written impact statements at three time points: beginning of treatment, end of treatment, and at 5-10 years follow-up. Primary mental health outcomes were symptoms of PTSD (Clinician-Administered PTSD Scale) and depression (Beck Depression Inventory). Changes in trauma-related beliefs between the end of treatment and long-term follow-up were associated with concomitant changes in PTSD and depression symptoms (effect sizes ranging from $r = .35-.54$). Declines in accommodated thinking and increases in overaccommodated thinking were associated with elevations in symptomatology. Improvement in accommodated thinking and declines in overaccommodated thinking were associated with lower PTSD and depression symptoms during this same time period. Findings provided support for the role of changes in accommodated and

overaccommodated thinking being associated with level of PTSD and depression many years after participating in CPT. [Author Abstract] KEY WORDS: cognitive distortions; cognitive-behavioral therapy; PTSD; depression; mixed-methods

Kennedy, A. C., D. I. Bybee, et al. (2014). "Examining cumulative victimization, community violence exposure, and stigma as contributors to PTSD symptoms among high-risk young women." *American Journal of Orthopsychiatry* 84(3): 284-294.

This study examines patterns of lifetime victimization within the family, community violence exposure, and stigma as contributors to posttraumatic stress disorder (PTSD) symptoms within a sample of 198 high-risk young women who are pregnant or parenting. We used cluster analysis to identify 5 profiles of cumulative victimization, based on participants' levels of witnessing intimate partner violence (IPV), physical abuse by an adult caregiver, and sexual victimization, all beginning by age 12. Hierarchical regression was used to examine these 5 clusters (ranging from a High All Victimization cluster characterized by high levels of all 3 forms of violence, to a Low All Victimization cluster characterized by low levels of all 3 forms), along with community violence exposure and stigma, as predictors of PTSD symptoms. We found that 3 of the cumulative victimization clusters, in comparison with Low All Victimization, were significant predictors of PTSD symptoms, as was stigma, while community violence exposure was not a significant predictor. [Author Abstract]

Kim, H. G., P. A. Harrison, et al. (2014). "Posttraumatic stress disorder among women receiving prenatal care at three federally qualified health care centers." *Maternal and Child Health Journal* 18(5): 1056-1065.

This study assessed the prevalence and interrelationships of posttraumatic stress disorder (PTSD), antecedent trauma, and psychosocial risk factors among pregnant women served at three urban Federally Qualified Health Care Centers. This analysis was part of a validation study of the prenatal risk overview, a structured psychosocial risk screening interview. The study sample included 745 prenatal patients at three clinics who also were administered the major depression, PTSD, alcohol, and drug use modules of the Structured Clinical Interview for DSM-IV (SCID). Most participants were women of color (89.1%), under the age of 25 years (67.8%), and unmarried (86.2%). The rate for a current PTSD diagnosis was 6.6% and for subthreshold PTSD 4.2%. More than half (54%) of participants reported a trauma that met PTSD criteria; 21% reported being a victim of or witness to violence or abuse, including 78% of women with PTSD. Compared to those without PTSD, those with PTSD were 4 times more likely to be at risk for housing instability (AOR 4.15; 95% CI 1.76, 9.80) and depression (AOR 3.91; 95% CI 2.05, 7.47) and 2 times as likely to be at risk for a drug use disorder (AOR 1.96, 95% CI 1.04, 3.71) and involvement with child protective services (AOR 2.27; 95% CI 1.06, 4.89). Women age 25 or older were twice as likely to meet PTSD diagnostic criteria as younger women (AOR 2.27; 95% CI 1.21, 4.28). Trauma exposure and pervasive PTSD were common in this population. Systematic psychosocial risk screening may identify the population with PTSD even without questions specific to this disorder. [Author Abstract] KEY WORDS: PTSD; trauma; pregnancy; risk screening

Kirsch, V., F. H. Wilhelm, et al. (2015). "Psychophysiological characteristics of pediatric posttraumatic stress disorder during script-driven traumatic imagery." *European Journal of Psychotraumatology* 6.

BACKGROUND: Psychophysiological alterations such as elevated baseline levels and hyperresponsivity in cardiac, electrodermal, and facial muscle activity have been observed in adults with posttraumatic stress disorder (PTSD). There are only few, inconclusive studies investigating psychophysiological responses in children and adolescents with PTSD. **OBJECTIVE:** This cross-sectional study sought to examine if autonomic variables, facial electromyography (EMG), and self-reported anxiety at baseline, while listening to neutral and idiosyncratic trauma scripts, differ between minors with a trauma history and PTSD, and a traumatized control (TC) group without PTSD. A better understanding of psychophysiological reactions in trauma-exposed children and adolescents could improve differential assessment and treatment decisions. **METHOD:** PTSD was assessed using the Clinician Administered PTSD Scale for Children and Adolescents in 6- to 17-year-old trauma-exposed children, resulting in a group with PTSD according to DSM-IV ($n=16$) and a TC group without PTSD ($n=18$). Facial EMG, (para-)sympathetic measures (heart rate, electrodermal activity, respiratory sinus arrhythmia), and self-reported anxiety were measured during 5-min baseline, 3-min neutral script, and 3-min idiosyncratic trauma script. Baseline, reactivity (trauma minus baseline), and script contrast (trauma minus neutral) were analyzed by multivariate analyses of variance. **RESULTS:** Children and adolescents with PTSD reported more anxiety compared to TC for baseline, reactivity, and script contrast ($p<0.05$), and showed elevated corrugator supercilii muscle activity for script contrast ($p<0.05$, $d=0.79$). No group differences emerged for sympathetic or parasympathetic measures. **CONCLUSIONS:** Children and adolescents with PTSD experienced elevated anxiety at baseline and elevated anxiety and facial corrugator muscle response to an idiosyncratic trauma narrative. Autonomic hyperreactivity, typical for adult PTSD samples, did not figure prominently. [Author Abstract] **KEY WORDS:** psychophysiology; PTSD; trauma; electromyography; autonomic nervous system; idiosyncratic trauma script

Knefel, M., D. W. Garvert, et al. (2015). "Update to an evaluation of ICD-11 PTSD and complex PTSD criteria in a sample of adult survivors of childhood institutional abuse by Knefel & Lueger-Schuster (2013): a latent profile analysis." *European Journal of Psychotraumatology* 6.

BACKGROUND: The World Health Organization (WHO) International Classification of Diseases, 11th version (ICD-11), has proposed a trauma-related diagnosis of complex posttraumatic stress disorder (CPTSD) separate and distinct from posttraumatic stress disorder (PTSD). **OBJECTIVE:** To determine whether the symptoms endorsed by individuals who had experienced childhood institutional abuse form classes that are consistent with diagnostic criteria for ICD-11 CPTSD as distinct from PTSD. **METHODS:** A latent profile analysis (LPA) was conducted on 229 adult survivors of institutional abuse using the Brief Symptom Inventory and the PTSD Checklist—Civilian Version to assess current psychopathological symptoms. **RESULTS:** The LPA revealed four classes of individuals: (1) a class with elevated symptoms of CPTSD (PTSD symptoms and disturbances in self-organization); (2) a class with elevated symptoms of PTSD and low disturbances in self-organization; (3) a class with elevated disturbances in self-organization symptoms and some elevated PTSD symptoms; and (4) a class with low symptoms. **CONCLUSION:** The results support the existence of a

distinct group in our sample, that could be described by the proposed diagnostic category termed CPTSD more precisely than by normal PTSD. In addition, there seems to be a group of persons that do not fulfill the criteria for a trauma-related disorder but yet suffer from psychopathological symptoms. [Author Abstract] KEY WORDS: complex PTSD; PTSD; institutional abuse; WHO; ICD-11; latent profile analysis; childhood abuse

Laurent, H. K., K. S. Gilliam, et al. (2015). "Child anxiety symptoms related to longitudinal cortisol trajectories and acute stress responses: evidence of developmental stress sensitization." *Journal of Abnormal Psychology* 124(1): 68-79.

Cross-sectional research suggests that individuals at risk for internalizing disorders show differential activation levels and/or dynamics of stress-sensitive physiological systems, possibly reflecting a process of stress sensitization. However, there is little longitudinal research to clarify how the development of these systems over time relates to activation during acute stress, and how aspects of such activation map onto internalizing symptoms. We investigated children's (n = 107) diurnal hypothalamic-pituitary-adrenal activity via salivary cortisol (morning and evening levels) across 29 assessments spanning 6+ years, and related longitudinal patterns to acute stress responses at the end of this period (age 9-10). Associations with child psychiatric symptoms at age 10 were also examined to determine internalizing risk profiles. Increasing morning cortisol levels across assessments predicted less of a cortisol decline following interpersonal stress at age 9, and higher cortisol levels during performance stress at age 10. These same profiles of high and/or sustained cortisol elevation during psychosocial stress were associated with child anxiety symptoms. Results suggest developmental sensitization to stress - reflected in rising morning cortisol and eventual hyperactivation during acute stress exposure - may distinguish children at risk for internalizing disorders. [Author Abstract] KEY WORDS: cortisol; stress; development; internalizing risk

Louie, A. D. and L. D. Cromer (2014). "Parent-child attachment during the deployment cycle: impact on reintegration parenting stress." *Professional Psychology: Research and Practice* 45(6): 496-503.

Military families with young children face unique psychological and relational challenges during reintegration because of attachment disruption. This can increase psychological stress for service members. We examined three phases of the deployment cycle: predeployment, deployment, and reintegration to reveal risk and resilience factors that may impede or promote attachment relationships. We also explored the impact of predeployment preparation and deployment communication on service members' parenting stress at reintegration. We conducted (N = 30) semistructured interviews with fathers who were deployed within 2 years of the study, and whose youngest child was 6 years old or younger during the deployment. We found that military fathers whose families did not have preparation strategies for maintaining father-child relationship during the deployment experienced more parenting stress after the deployment than did fathers whose families did use preparation strategies. All participants reportedly communicated with their children during deployment, although number of communication methods did not predict later parenting stress. The most common reintegration experiences were described as an adjustment period, parental stress, and time off of work. Strategies for building attachment as a means of promoting

resilience throughout the deployment cycle are identified and discussed. [Author Abstract] KEY WORDS: military deployment cycle; young children; attachment; parenting stress

Paivio, S. C. and E. Kunzle (2007). "Emotion-focused therapy for interpersonal trauma." *European Psychotherapy* 7(1): 77-95.

EFTT (Emotion Focused Therapy for Trauma) is an integrative model that extends and tailors the general theory of emotion focused therapy (EFT) to the area of interpersonal trauma. The treatment model is broadly applicable to complex interpersonal trauma, including recent application with immigrant and refugee victims of torture. However, most clinical work and research has been with men and women dealing with different types of child abuse (emotional, physical, sexual) trauma. EFTT is grounded in current experiential therapy theory and research (e.g., Greenberg & Paivio, 1997; Greenberg, Rice & Elliot, 1993; Paivio & Greenberg, 1995) which, in turn, draws on recent emotion theory and research and developments in affective neuroscience (e.g., Damasio, 1999; Fridja, 1986; Ledoux, 1996). Importantly, EFTT also integrates current knowledge in the areas of attachment and trauma (Briere & Scott, 2006; Herman, 1992; Solomon & Siegel, 2002, Van Der Kolk, Mcfarlane, & Weisaeth, 1996). [Author Abstract]

Park, S., Y.-Y. Nam, et al. (2015). "Interactions between the apolipoprotein E ϵ 4 allele status and adverse childhood experiences on depressive symptoms in older adults." *European Journal of Psychotraumatology* 6.

BACKGROUND: The influence of childhood adversity on depression is modulated by genetic vulnerability. The apolipoprotein E ϵ 4 (APOE- ϵ 4) allele is a strong genetic risk factor for Alzheimer's disease (AD). Because late-life depressive symptoms could be a part of the preclinical course of AD, the APOE- ϵ 4 allele may contribute to depression in old age. **OBJECTIVE:** The aim of this study was to evaluate whether an APOE- ϵ 4 carrier status was associated with depressive symptoms in older adults and to detect the gene-environment interaction between APOE- ϵ 4 status and childhood adversity in relation to depressive symptoms in old age. **METHOD:** The participants consisted of 137 older adults (age range 50–70) without any psychiatric history or clinically significant cognitive impairment. APOE genotypes and measures of childhood adversity and depressive symptoms were obtained. **RESULTS:** There was a significant positive association between adverse childhood experiences (ACE) scores and depressive symptoms ($B=0.60$; 95% CI=0.26, 0.93 for a 1 score increase in ACE scores; $p=0.001$). Although APOE- ϵ 4 status per se was not associated with depressive symptoms, there was a significant interaction of the ACE scores with the APOE genotype in relation to depressive symptoms ($B=0.78$; 95% CI=0.02, 1.55; $p=0.044$). There was a significantly higher effect of childhood adversity on depressive symptoms in APOE- ϵ 4 carriers than non-carriers ($t=2.13$, $p=0.035$). **CONCLUSIONS:** Our results suggest that the APOE- ϵ 4 may modulate the association between childhood adversity and depressive symptoms in older adults. However, more research in a larger sample is needed to gain a better understanding of the relationship between the APOE- ϵ 4, childhood adversity, and depression. [Author Abstract] KEY WORDS: depression; old age; APOE- ϵ 4; childhood adversity

Ramberg, M., B. H. Stanley, et al. (2015). "Depressed suicide attempters with posttraumatic stress disorder." *Archives of Suicide Research* 19(1): 48-59.

Posttraumatic stress disorder and major depressive disorder are well-established risk factors for suicidal behaviour. This study compared depressed suicide attempters with and without comorbid posttraumatic stress disorder with respect to additional diagnoses, global functioning, depressive symptoms, substance abuse, history of traumatic exposure and suicidal behaviour. Adult patients consecutively admitted to a general hospital after a suicide attempt were interviewed and assessed for DSM-IV diagnosis and clinical correlates. Sixty-four patients (71%) were diagnosed with depression; of them, 21 patients (32%) had posttraumatic stress disorder. There were no group differences in social adjustment, depressive symptoms, or suicidal intent. However, the group with comorbid depression and posttraumatic stress disorder had more additional Axis I diagnoses, a higher degree of childhood trauma exposure, and more often reported previous suicide attempts, non-suicidal self-harm and vengeful suicidal motives. These findings underline the clinical importance of diagnosis and treatment of posttraumatic stress disorder in suicide attempters. [Author Abstract] KEY WORDS: attempt; comorbidity; depression; hospital admission; PTSD; suicide

Scott, J. C., R. H. Pietrzak, et al. (2014). "Military sexual trauma interacts with combat exposure to increase risk for posttraumatic stress symptomatology in female Iraq and Afghanistan veterans." *Journal of Clinical Psychiatry* 75(6): 637-643.

OBJECTIVE: Sexual trauma during military service is increasingly recognized as a substantial public health problem and is associated with detrimental effects on veteran mental health. In this study, we examined associations between childhood trauma, military sexual trauma (MST), combat exposure, and military-related posttraumatic stress symptomatology (PTSS) in the Women Veterans Cohort Study (WVCS), a community-based sample of veterans who served in the recent conflicts in Iraq and Afghanistan. METHOD: From July 2008 to December 2011, 365 female veterans completed a survey that assessed combat exposure, military sexual trauma, military-related PTSS (assessed using the PTSD [posttraumatic stress disorder] Checklist-Military Version), and demographic, life history, and other psychopathology variables. RESULTS: High rates of childhood trauma (59.7%) and MST (sexual assault = 14.7%; sexual harassment = 34.8%) were observed in this sample. A hierarchical regression revealed that active duty status, childhood trauma, combat exposure, and MST were independently associated with increased severity of military-related PTSS ($P < .05$). Moreover, a significant interaction emerged between MST and combat exposure in predicting military-related PTSS ($P = .030$), suggesting that the relationship between combat exposure and PTSS was altered by MST status. Specifically, under conditions of high combat exposure, female veterans with MST had significantly higher PTSS compared to female veterans without MST. CONCLUSIONS: Taken together, results suggest that exposure to multiple traumas during military service may have synergistic effects on posttraumatic stress symptoms in female veterans. Moreover, our findings highlight the importance of prevention efforts to protect female veterans from the detrimental effects of MST, particularly those who are exposed to high levels of combat. [Author Abstract]

Stoppelbein, L. A. and L. Greening (2015). "A longitudinal study of the role of cortisol in post-traumatic stress disorder symptom clusters." *Anxiety, Stress, and Coping* 28(1): 17-30.

BACKGROUND AND OBJECTIVE: Research examining the role of cortisol in post-traumatic stress disorder (PTSD) has largely been cross-sectional studies and few studies have examined cortisol in relation to specific symptom clusters. Examining cortisol in relation to specific PTSD symptom clusters could aid in identifying candidates for symptom-specific treatments. Hence, cortisol was examined in relation to specific PTSD symptom clusters including re-experiencing, avoidance, numbing, and hyperarousal symptoms. **DESIGN:** A repeated measures longitudinal design was utilized to predict PTSD symptom clusters. **METHODS:** Mothers of children (N = 27) diagnosed with cancer completed a measure of PTSD and they provided salivary cortisol samples at the time of their child's diagnosis as well as monthly for the following 12 months. **RESULTS:** Multi-level modeling analyses revealed that higher cortisol levels were significantly related to higher levels of numbing symptoms. Although numbing symptoms declined as cortisol levels declined across 12 months post-cancer diagnosis, mothers with higher cortisol levels still reported more numbing symptoms. Re-experiencing, avoidance and hyperarousal symptoms were not found to be related to cortisol level across time. **CONCLUSIONS:** The findings offer support for the role of cortisol in the manifestation of numbing symptoms. Further research is recommended with other trauma groups to maximize generalizations. [Author Abstract] **KEY WORDS:** cortisol; etiology; neurobiology; PTSD; women

Thoresen, S., M. Myhre, et al. (2015). "Violence against children, later victimisation, and mental health: a cross-sectional study of the general Norwegian population." *European Journal of Psychotraumatology* 6.

BACKGROUND: Violence in childhood is associated with mental health problems and risk of revictimisation. Less is known about the relative importance of the various types of childhood and adult victimisation for adult mental health. **OBJECTIVE:** To estimate the associations between various types of childhood and adult violence exposure, and their combined associations to adult mental health. **METHOD:** This study was a cross-sectional telephone survey of the Norwegian adult population; 2,435 women and 2,092 men aged 18-75 participated (19.3% of those we tried to call and 42.9% of those who answered the phone). The interview comprised a broad array of violence exposure in both childhood and adulthood. Anxiety/depression was measured by the Hopkins Symptom Check List (HSCL-10). **RESULTS:** Victimization was commonly reported, for example, child sexual abuse (women: 10.2%, men: 3.5%), childhood-parental physical violence (women: 4.9%, men: 5.1%), and lifetime forcible rape (women: 9.4%, men: 1.1%). All categories of childhood violence were significantly associated with adult victimisation, with a 2.2-5.0 times higher occurrence in exposed children ($p < 0.05$ for all associations). Anxiety/depression (HSCL-10) associated with adult abuse increased with the number of childhood violence categories experienced ($p < 0.001$). All combinations of childhood violence were significantly associated with anxiety/depression ($p < 0.001$ for all associations). Individuals reporting psychological violence/neglect had the highest levels of anxiety/depression. **CONCLUSIONS:** Results should be interpreted in light of the low response rate. Childhood violence in all its forms was a risk factor for victimisation in adulthood. Adult anxiety/depression was associated with both the number of violence categories and the type of

childhood violence experienced. A broad assessment of childhood and adult violence exposure is necessary both for research and prevention purposes. Psychological violence and neglect should receive more research attention, especially in combination with other types of violence. [Author Abstract] KEY WORDS: violence; child abuse; child sexual abuse; rape; mental health; revictimisation; epidemiology; anxiety; depression

Walczewska, J., K. Rutkowski, et al. (2014). "Comprehensive geriatric evaluation in former Siberian deportees with posttraumatic stress disorder." *American Journal of Geriatric Psychiatry* 22(8): 820-828.

OBJECTIVES: Posttraumatic stress disorder (PTSD) develops after exposure to particularly traumatic events. Its severity depends on the nature and intensity of the stressor and the susceptibility of the exposed person. The aim of our study was to assess the relationship between PTSD resulting from deportation to Siberia in the patients' childhood and cognitive, emotional, and physical decline in advanced age. METHODS: Eighty patients with PTSD with a history of deportation to Siberia and 70 subjects without PTSD were diagnosed according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision; severity of the symptoms included in the criteria was also assessed. In all patients, a standardized interview (including demographic data and comprehensive geriatric assessment tools such as the Mini-Mental State Examination, Geriatric Depression Scale, activities of daily living, and instrumental activities of daily living) was performed. RESULTS: In analyses with the comparison group, patients with PTSD had a higher frequency of cognitive deficits (7.1% versus 22.5%), depression (31.4% versus 88.8%) and physical disability in activities of daily living (0% versus 21.3%), and instrumental activities of daily living (40.0% versus 88.8%). Moreover, increasing severity of PTSD was associated with significant deterioration in cognitive function, severity of depression, and the deterioration of basic and complex activities of daily living. CONCLUSIONS: Higher frequency of cognitive function deficits, depression, and physical disability was found in the group of former deportees compared with the group of individuals without history of such a traumatic experience. [Author Abstract] KEY WORDS: comprehensive geriatric evaluation; PTSD; Siberian deportees

Weder, N., H. Zhang, et al. (2014). "Child abuse, depression, and methylation in genes involved with stress, neural plasticity, and brain circuitry." *Journal of the American Academy of Child and Adolescent Psychiatry* 53(4): 417-424.e415.

OBJECTIVES: To determine whether epigenetic markers predict dimensional ratings of depression in maltreated children. METHOD: A genome-wide methylation study was completed using the Illumina 450K BeadChip array in 94 maltreated and 96 healthy nontraumatized children with saliva-derived DNA. The 450K BeadChip does not include any methylation sites in the exact location as sites in candidate genes previously examined in the literature, so a test for replication of prior research findings was not feasible. RESULTS: Methylation in 3 genes emerged as genome-wide-significant predictors of depression: DNA-Binding Protein Inhibitor ID-3 (ID3); Glutamate Receptor, Ionotropic N-methyl-D-aspartate (NMDA) 1 (GRIN1); and Tubulin Polymerization Promoting Protein (TPPP) ($p < 5.0 \times 10^{-7}$, all analyses). These genes are all biologically relevant with ID3

involved in the stress response, GRIN1 involved in neural plasticity, and TPPP involved in neural circuitry development. Methylation in CpG sites in candidate genes were not predictors of depression at significance levels corrected for whole genome testing, but maltreated and control children did have significantly different β values after Bonferroni correction at multiple methylation sites in these candidate genes (e.g., BDNF, NR3C1, FKBP5). CONCLUSIONS: This study suggests that epigenetic changes in ID3, GRIN1, and TPPP genes, in combination with experiences of maltreatment, may confer risk for depression in children. The study adds to a growing body of literature supporting a role for epigenetic mechanisms in the pathophysiology of stress-related psychiatric disorders. Although epigenetic changes are frequently long lasting, they are not necessarily permanent. Consequently, interventions to reverse the negative biological and behavioral sequelae associated with child maltreatment are briefly discussed. [Author Abstract] KEY WORDS: child abuse; depression; methylation; epigenetics