

August, 2013 Medline Topic Alert

1. Int Clin Psychopharmacol. 2013 Aug 1. [Epub ahead of print]

Association of DHEA, DHEAS, and cortisol with childhood trauma exposure and post-traumatic stress disorder.

Van Voorhees EE, Dennis MF, Calhoun PS, Beckham JC. aMid-Atlantic Mental Illness Research, Education and Clinical Center (MIRECC) bDurham Veterans Affairs Medical Center cDepartment of Psychiatry and Behavioral Sciences, Duke University Medical Center, Durham, North Carolina, USA.

There has been a great deal of interest in the role of the neuroendocrine hormones of the hypothalamic-pituitary-adrenal (HPA) axis in the expression of stress-related psychopathology such as post-traumatic stress disorder (PTSD). This investigation examined the association of PTSD and childhood maltreatment with three key HPA axis hormones: cortisol, dehydroepiandrosterone (DHEA), and dehydroepiandrosterone sulfate (DHEAS). Regression analyses were undertaken on a sample of 43 participants with and 57 participants without PTSD. Results demonstrated that after controlling for age, sex, and PTSD status, exposure to childhood maltreatment was significantly associated with cortisol secretion $[F(4,95)=11.68, \Delta R=0.11, P=0.0009]$ and cortisol/DHEA ratio [F(4,95)=6.20,ΔR=0.05, P=0.01]. PTSD status was not associated with any of these neuroendocrine variables. Findings are discussed in the context of the complexity of the relationship of these neuroendocrine variables with trauma exposure and trauma-related psychopathology. It is suggested that DHEA(S) or cortisol/DHEA(S) ratios may not be biomarkers of specific forms of psychopathology per se, but that, instead, the severity and developmental timing of trauma may set the HPA axis in ways that are reflected in interactions among these neuroendocrine hormones. In adulthood, these HPA axis hormones may continue to be dynamically affected by personal and environmental resources.

2. BMJ Open. 2013 Jul 30;3(7). pii: e002997. doi: 10.1136/bmjopen-2013-002997.

Potentially traumatic interpersonal events, psychological distress and recurrent headache in a population-based cohort of adolescents: the HUNT study.

Stensland SØ, Dyb G, Thoresen S, Wentzel-Larsen T, Zwart JA.

Norwegian Centre for Violence and Traumatic Stress Studies, Oslo, Norway.

OBJECTIVES: Recurrent headache co-occurs commonly with psychological distress, such as anxiety or depression. Potentially traumatic interpersonal events (PTIEs) could represent important precursors of psychological distress and recurrent headache in adolescents. Our objective was to assess the hypothesised association between exposure to PTIEs and recurrent migraine and tension-type headache (TTH) in adolescents, and to further examine the potential impact of psychological distress on this relationship.

DESIGN: Population-based, cross-sectional cohort study. The study includes self-reported data from youth on exposure to potentially traumatic events, psychological distress and a validated interview on headache.

SETTING: The adolescent part of the Nord-Trøndelag Health Study 2006-2008 (HUNT), conducted in Norway.

PARTICIPANTS: A cohort of 10 464 adolescents were invited to the study. Age ranged from 12 to 20 years. The response rate was 73% (7620), of whom 50% (3832) were girls.

MAIN OUTCOME MEASURES: Data from the headache interview served as the outcome. Recurrent headache was defined as headache recurring at least monthly during the past year, and was subclassified into monthly, weekly and daily complaints. Subtypes were classified as TTH, migraine, migraine with TTH and/or non-classifiable headache, in accordance with the International Classification of Headache Disorders criteria, second edition.

RESULTS: Multiple logistic regression analysis, adjusted for sociodemographics, showed consistently significant associations between exposure to PTIEs and recurrent headache, regardless of the frequency or subtype of headache. Increasing exposure to PTIEs was associated with higher prevalence of recurrent headache, indicating a dose-response relationship. The strength of associations between exposure to PTIEs and all recurrent headache disorders was significantly attenuated when psychological distress was entered into the regression equation. CONCLUSIONS: The empirical evidence of a strong and cumulative relationship between exposure to PTIEs, psychological distress and recurrent headache indicates a need for the integration of somatic and psychological healthcare services for adolescents in the prevention, assessment and treatment of recurrent headache. Prospective studies are needed.

3. Eur J Psychotraumatol. 2013 Jul 26;4. doi: 10.3402/ejpt.v4i0.21311. Print 2013. Using a web-based game to prevent posttraumatic stress in children following medical events: design of a randomized controlled trial.

Marsac ML, Kohser KL, Winston FK, Kenardy J, March S, Kassam-Adams N.

Child and Adolescent Psychiatry and Behavioral Science, The Children's Hospital of Philadelphia, Philadelphia, PA, USA; Department of Psychiatry, University of Pennsylvania, Philadelphia, PA, USA.

BACKGROUND: Medical events including acute illness and injury are among the most common potentially traumatic experiences for children. Despite the scope of the problem, only limited resources are available for prevention of posttraumatic stress symptoms (PTSS) after pediatric medical events. Web-based programs provide a low-cost, accessible means to reach a wide range of families and show promise in related areas of child mental health.

OBJECTIVES: To describe the design of a randomized controlled trial that will evaluate feasibility and estimate preliminary efficacy of Coping Coach, a web-based preventive intervention to prevent or reduce PTSS after acute pediatric medical events.

METHOD: Seventy children and their parents will be randomly assigned to either an intervention or a waitlist control condition. Inclusion criteria require that children are aged 8-12 years, have experienced a medical event, have access to Internet and telephone, and have sufficient competency in the English language to complete measures and understand the intervention. Participants will complete baseline measures and will then be randomized to the intervention or waitlist control condition. Children in the intervention condition will complete module 1 (Feelings Identification) in the hospital and will be instructed on how to complete modules 2 (Appraisals) and 3 (Avoidance) online. Follow-up assessments will be conducted via telephone at 6, 12, and 18 weeks after the baseline assessment. Following the 12-week assessment, children in the waitlist control condition will receive instructions for completing the intervention. RESULTS: Primary study outcomes include data on intervention feasibility and outcomes (child appraisals, coping, PTSS and health-related quality of life). DISCUSSION: Results will provide data on the feasibility of the implementation of the Coping Coach intervention and study procedures as well as estimations of efficacy to determine sample size for a larger study. Potential strengths and limitations of this design are discussed.

4. Depress Anxiety. 2013 Jul 24. doi: 10.1002/da.22154. [Epub ahead of print]CORTISOL AWAKENING RESPONSE IN ADOLESCENTS WITH ACUTE SEXUAL ABUSE RELATED POSTTRAUMATIC STRESS DISORDER.

Keeshin BR, Strawn JR, Out D, Granger DA, Putnam FW.

Mayerson Center for Safe and Healthy Children, Cincinnati Children's Hospital

Medical Center, Cincinnati, Ohio; Division of Child and Adolescent Psychiatry,

Department of Pediatrics, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio.

BACKGROUND: Little is known regarding changes in the hypothalamic-pituitary-adrenal axis (HPA axis) of adolescent girls with and without posttraumatic stress disorder (PTSD) who have recently experienced sexual abuse. Therefore, in this pilot study, we utilized non-stressed home saliva collection three times a day for three days to assess the levels, diurnal variation and awakening response of cortisol in recently sexually abused adolescent girls.

METHODS: Twenty-four adolescent girls (mean age: 15 ± 1.5 years) with a history of recent sexual abuse (sexual abuse occurred 1-6 months prior to study enrollment) and 12 healthy, nontraumatized comparison subjects (mean age: 14.8 ± 1.3 years) collected saliva at home upon awakening, 30 min after waking, and in the late afternoon on three consecutive school days.

RESULTS: Among sexually abused girls, flattening of the morning cortisol awakening response was associated with PTSD severity (r = -.41, P < .05) as well as intrusive symptoms (r = -.42, P < .05). Increased adversity prior to sexual abuse was also associated with flattening of the cortisol awakening response (r = -.53, P < .01).

CONCLUSIONS: Attenuation of the cortisol awakening response in recently sexually abused girls suggests that alterations in HPA-axis functioning may occur relatively proximate to the traumatic event and correlate with symptom severity of PTSD, intrusive symptoms, and hyperarousal symptoms. These data raise the possibility that subacute alterations in the dynamic secretion of cortisol are directly related to the pathophysiology of sexual abuse-related PTSD symptoms in adolescent girls.

5. Br J Psychiatry. 2013 Jul 25. [Epub ahead of print]

Post-traumatic stress symptoms among former child soldiers in Sierra Leone: follow-up study.

Betancourt TS, Newnham EA, McBain R, Brennan RT.

Theresa S. Betancourt, ScD, MA, François-Xavier Bagnoud Center for Health and Human Rights, and Department of Global Health and Population, Harvard School of Public Health, Boston, USA; Elizabeth A. Newnham, MPsych, PhD, François-Xavier Bagnoud Center for Health and Human Rights, Harvard School of Public Health, Boston, USA, and School of Psychology, University of Western Australia, Perth, Australia; Ryan McBain, MSPH, François-Xavier Bagnoud Center for Health and Human Rights, and Department of Global Health and Population, Harvard School of Public Health, Boston, USA; Robert T. Brennan, EdM, MA, EdD, François-Xavier Bagnoud

Center for Health and Human Rights, Harvard School of Public Health, Boston, USA.

BACKGROUND: Former child soldiers are at risk of developing post-traumatic stress disorder (PTSD); however, the trajectory of symptoms has yet to be examined. AIMS: The risk and protective factors associated with PTSD symptom change among former child soldiers in Sierra Leone were investigated.

METHOD: Data from 243 former child soldiers (mean age 16.6 years, 30% female) were analysed.

RESULTS: Self-reported rates of possible PTSD using standard cut-off points declined from 32% to 16% 4 years later (P<0.05). Symptoms of PTSD at baseline were significantly associated with war experiences (P<0.01) and post-conflict family abuse (P<0.001). Reliable improvement in symptoms was reported by 30%. In growth models examining symptom change, worsening of symptoms was associated with death of a parent (P<0.05) and post-conflict stigma (P<0.001). Protective effects were observed for increases in family acceptance (P<0.001).

CONCLUSIONS: The findings indicated improvement in PTSD symptoms among former child soldiers despite limited access to care. Family and community support played a vital part in promoting psychological adjustment.

6. J Am Acad Child Adolesc Psychiatry. 2013 Aug;52(8):815-830.e14. doi: 10.1016/j.jaac.2013.05.011. Epub 2013 Jun 25.

Trauma exposure and posttraumatic stress disorder in a national sample of adolescents.

McLaughlin KA, Koenen KC, Hill ED, Petukhova M, Sampson NA, Zaslavsky AM, Kessler RC.

Boston Children's Hospital and Harvard Medical School. Electronic address: Katie.McLaughlin@childrens.harvard.edu.

OBJECTIVE: Although exposure to potentially traumatic experiences (PTEs) is common among youths in the United States, information on posttraumatic stress disorder (PTSD) risk associated with PTEs is limited. We estimate lifetime prevalence of exposure to PTEs and PTSD, PTE-specific risk of PTSD, and associations of sociodemographics and temporally prior DSM-IV disorders with PTE exposure, PTSD given exposure, and PTSD recovery among U.S. adolescents. METHOD: Data were drawn from 6,483 adolescent-parent pairs in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A), a national survey of adolescents aged 13 through 17 years. Lifetime exposure to interpersonal violence, accidents/injuries, network/witnessing, and other PTEs was assessed along with DSM-IV PTSD and other distress, fear, behavior, and substance disorders.

RESULTS: A majority (61.8%) of adolescents experienced a lifetime PTE. Lifetime prevalence of DSM-IV PTSD was 4.7% and was significantly higher among females (7.3%) than among males (2.2%). Exposure to PTEs, particularly interpersonal violence, was highest among adolescents not living with both biological parents and with pre-existing behavior disorders. Conditional probability of PTSD was highest for PTEs involving interpersonal violence. Predictors of PTSD among PTE-exposed adolescents included female gender, prior PTE exposure, and pre-existing fear and distress disorders. One-third (33.0%) of adolescents with lifetime PTSD continued to meet criteria within 30 days of interview. Poverty, U.S. nativity, bipolar disorder, and PTE exposure occurring after the focal trauma predicted nonrecovery.

CONCLUSIONS: Interventions designed to prevent PTSD in PTE-exposed youths should be targeted at victims of interpersonal violence with pre-existing fear and distress disorders, whereas interventions designed to reduce PTSD chronicity should attempt to prevent secondary PTE exposure.

7. J Am Acad Child Adolesc Psychiatry. 2013 Aug;52(8):780-3. doi: 10.1016/i.jaac.2013.05.012.

Trauma exposure and posttraumatic stress disorder in the lives of adolescents.

Ford JD.

8. J Evid Based Soc Work. 2013 Jul;10(4):373-87. doi: 10.1080/15433714.2012.664058.

Symptoms of Posttraumatic Stress among Child Welfare Workers Who Experience a Maltreatment Fatality on their Caseload.

Douglas EM.

a School of Social Work, Bridgewater State University , Bridgewater , Massachusetts , USA.

Annually, 1,000-2,000 child welfare workers experience the death of a child client. The child welfare field has paid increasing attention to the impact of workplace trauma events on the psychological distress of child welfare workers. In this article the author assesses the relationship between experiencing a maltreatment fatality and workers' posttraumatic stress among a multi-state sample of 385 child welfare workers. Results indicate that a maltreatment fatality is not associated with higher rates of posttraumatic stress. Among child welfare workers who experienced a fatality, those who feel greater culpability for the death report higher levels of posttraumatic stress. Implications for future research and practice are discussed.

9. J Evid Based Soc Work. 2013 Jul;10(4):276-84. doi: 10.1080/10911359.2011.566468.

Child maltreatment: the neurobiological aspects of posttraumatic stress disorder.

Painter K, Scannapieco M.

a School of Sociology and Social Work, Texas Woman's University , Denton , Texas , USA.

Childhood trauma due to physical abuse, neglect, or sexual abuse is a serious problem in the United States. Trauma can result in disruption or injury to the developing brain and lead to neurodevelopmental deficits that affect a child's functioning and can result in lifelong problems. Research has provided insight into how early childhood maltreatment affects brain development. This article examines the research on trauma, its effects on the brain, and evidence-based interventions. An overview of normal brain functioning and posttraumatic stress disorder is presented. Implications for social work practice with children who have experienced child maltreatment are discussed.

10. Evid Based Child Health. 2013 May;8(3):1117-9. doi: 10.1002/ebch.1917.

Commentary on 'Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents'.

David D, Dobrean A.

Department of Clinical Psychology and Psychotherapy, Babes-Bolyai University, Cluj-Napoca, Romania; Mount Sinai School of Medicine, New York, NY, USA. daniel.david@ubbcluj.ro.

This is commentary on a Cochrane review, published in the issue of EBCH, first published as: Gillie D, Taylor F, Gray C, O'Brien L, D'Abrew N. Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents. Cochrane Database of Systematic Reviews 2012, Issue 12. Art. No.: CD006726. DOI: 10.1002/14651858.CD006726.pub2.

11. Evid Based Child Health. 2013 May;8(3):1004-116. doi: 10.1002/ebch.1916.

Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents (Review).

Gillies D, Taylor F, Gray C, O'Brien L, D'Abrew N.

Western Sydney and Nepean Blue Mountains Local Health Districts - Mental Health, Parramatta, Australia. Donna_Gillies@wsahs.nsw.gov.au.

BACKGROUND: Post-traumatic stress disorder (PTSD) is highly prevalent in children

and adolescents who have experienced trauma and has high personal and health costs. Although a wide range of psychological therapies have been used in the treatment of PTSD there are no systematic reviews of these therapies in children and adolescents.

OBJECTIVES: To examine the effectiveness of psychological therapies in treating children and adolescents who have been diagnosed with PTSD.

SEARCH METHODS: We searched the Cochrane Depression, Anxiety and Neurosis Review Group's Specialised Register (CCDANCTR) to December 2011. The CCDANCTR includes relevant randomised controlled trials from the following bibliographic databases: CENTRAL (the Cochrane Central Register of Controlled Trials) (all years), EMBASE (1974 -), MEDLINE (1950 -) and PsycINFO (1967 -). We also checked reference lists of relevant studies and reviews. We applied no date or language restrictions. SELECTION CRITERIA: All randomised controlled trials of psychological therapies compared to a control, pharmacological therapy or other treatments in children or adolescents exposed to a traumatic event or diagnosed with PTSD.

DATA COLLECTION AND ANALYSIS: Two members of the review group independently extracted data. If differences were identified, they were resolved by consensus, or referral to the review team. We calculated the odds ratio (OR) for binary outcomes, the standardised mean difference (SMD) for continuous outcomes, and 95% confidence intervals (CI) for both, using a fixed-effect model. If heterogeneity was found we used a random-effects model.

MAIN RESULTS: Fourteen studies including 758 participants were included in this review. The types of trauma participants had been exposed to included sexual abuse, civil violence, natural disaster, domestic violence and motor vehicle accidents. Most participants were clients of a trauma-related support service. The psychological therapies used in these studies were cognitive behavioural therapy (CBT), exposure-based, psychodynamic, narrative, supportive counselling, and eye movement desensitisation and reprocessing (EMDR). Most compared a psychological therapy to a control group. No study compared psychological therapies to pharmacological therapies alone or as an adjunct to a psychological therapy. Across all psychological therapies, improvement was significantly better (three studies, n = 80, OR 4.21, 95% CI 1.12 to 15.85) and symptoms of PTSD (seven studies, n = 271, SMD -0.90, 95% CI -1.24 to -0.42), anxiety (three studies, n = 91, SMD -0.57, 95% CI -1.00 to -0.13) and depression (five studies, n = 156, SMD -0.74, 95% CI -1.11 to -0.36) were significantly lower within a month of completing psychological therapy compared to a control group. The psychological therapy for which there was the best evidence of effectiveness was CBT. Improvement was significantly better for up to a year following treatment (up to one month: two studies, n = 49, OR 8.64, 95% CI 2.01 to 37.14; up to one year: one study, n = 25, OR 8.00, 95% CI 1.21 to 52.69). PTSD symptom scores were also significantly lower for up to one year (up to one month: three studies, n =

98, SMD -1.34, 95% CI -1.79 to -0.89; up to one year: one study, n = 36, SMD -0.73, 95% CI -1.44 to -0.01), and depression scores were lower for up to a month (three studies, n = 98, SMD -0.80, 95% CI -1.47 to -0.13) in the CBT group compared to a control. No adverse effects were identified. No study was rated as a high risk for selection or detection bias but a minority were rated as a high risk for attrition, reporting and other bias. Most included studies were rated as an unclear risk for selection, detection and attrition bias.

AUTHORS' CONCLUSIONS: There is evidence for the effectiveness of psychological therapies, particularly CBT, for treating PTSD in children and adolescents for up to a month following treatment. At this stage, there is no clear evidence for the effectiveness of one psychological therapy compared to others. There is also not enough evidence to conclude that children and adolescents with particular types of trauma are more or less likely to respond to psychological therapies than others. The findings of this review are limited by the potential for methodological biases, and the small number and generally small size of identified studies. In addition, there was evidence of substantial heterogeneity in some analyses which could not be explained by subgroup or sensitivity analyses. More evidence is required for the effectiveness of all psychological therapies more than one month after treatment. Much more evidence is needed to demonstrate the relative effectiveness of different psychological therapies or the effectiveness of psychological therapies compared to other treatments. More details are required in future trials in regards to the types of trauma that preceded the diagnosis of PTSD and whether the traumas are single event or ongoing. Future studies should also aim to identify the most valid and reliable measures of PTSD symptoms and ensure that all scores, total and sub-scores, are consistently reported.

PLAIN LANGUAGE SUMMARY: Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents Post-traumatic stress disorder (PTSD) is highly prevalent in children and adolescents who have experienced trauma and has high personal and health costs. The aim of this review was to examine the effectiveness of all psychological therapies for the treatment of PTSD in children and adolescents. We searched for all randomised controlled trials comparing psychological therapies to a control, other psychological therapies or other therapies for the treatment of PTSD in children and adolescents aged 3 to 18 years. We identified 14 studies with a total of 758 participants. The types of trauma related to the PTSD were sexual abuse, civil violence, natural disaster, domestic violence and motor vehicle accidents. Most participants were clients of a trauma-related support service. The psychological therapies used in the included studies were cognitive behavioural therapy (CBT), exposure-based, psychodynamic, narrative, supportive counselling, and eye movement desensitisation and reprocessing (EMDR). Most included studies compared

a psychological therapy to a control group. No study compared psychological therapies to medications or medications in combination with a psychological therapy. There was fair evidence for the effectiveness of psychological therapies, particularly CBT, for the treatment of PTSD in children and adolescents for up to a month following treatment. More evidence is required for the effectiveness of psychological therapies in the longer term and to be able to compare the effectiveness of one psychological therapy to another. The findings of this review are limited by the potential for bias in the included studies, possible differences between studies which could not be identified, the small number of identified studies and the low number of participants in most studies.

12. Psychol Assess. 2013 Jul 22. [Epub ahead of print]

Frequency of Intrusions and Flashbacks in Patients With Posttraumatic Stress Disorder Related to Childhood Sexual Abuse: An Electronic Diary Study.

Priebe K, Kleindienst N, Zimmer J, Koudela S, Ebner-Priemer U, Bohus M.

Intrusions and flashbacks are core features of posttraumatic stress disorder (PTSD). The frequency of these symptoms is usually assessed through retrospective questionnaires, which may be subject to recall bias of unknown magnitude. Electronic diaries that enable real-time assessment have been used to address recall biases in several psychiatric disorders. However, to our knowledge, this is the first study to apply this method to assess intrusions and flashbacks in PTSD related to childhood sexual abuse (CSA). Female patients with PTSD related to CSA (n = 28) were provided with electronic diaries for repeated real-time assessment of intrusions and flashbacks over the period of 1 week. At the end of this period, they were asked to retrospectively report how many such symptoms they recalled having experienced over the past week. The total number of symptoms reported in the electronic diaries (74.5 \pm 62.0 intrusions and 24.4 \pm 36.0 flashbacks for the week) was substantially higher than those reported in previous studies. Furthermore, electronic diaries revealed the occurrence of about 50% more intrusions and flashbacks than did the retrospective assessment (74.5 vs. 49.5 for intrusions, and 24.4 vs. 13.4 for flashbacks). Such high frequencies are not captured with existing assessment instruments and suggest a possible ceiling effect. Future research needs to clarify whether these high numbers are specific to highly symptomatic PTSD patients or might generalize to other populations of PTSD patients. (PsycINFO Database Record (c) 2013 APA, all rights reserved).

13. Eur J Psychotraumatol. 2013 Jul 16;4. doi: 10.3402/ejpt.v4i0.20274. Print 2013.

Trauma histories among justice-involved youth: findings from the National Child Traumatic Stress Network.

Dierkhising CB, Ko SJ, Woods-Jaeger B, Briggs EC, Lee R, Pynoos RS. National Center for Child Traumatic Stress, University of California, Los Angeles, CA, USA.

BACKGROUND: Up to 90% of justice-involved youth report exposure to some type of traumatic event. On average, 70% of youth meet criteria for a mental health disorder with approximately 30% of youth meeting criteria for post-traumatic stress disorder (PTSD). Justice-involved youth are also at risk for substance use and academic problems, and child welfare involvement. Yet, less is known about the details of their trauma histories, and associations among trauma details, mental health problems, and associated risk factors.

OBJECTIVE: This study describes detailed trauma histories, mental health problems, and associated risk factors (i.e., academic problems, substance/alcohol use, and concurrent child welfare involvement) among adolescents with recent involvement in the juvenile justice system.

METHOD: The National Child Traumatic Stress Network Core Data Set (NCTSN-CDS) is used to address these aims, among which 658 adolescents report recent involvement in the juvenile justice system as indexed by being detained or under community supervision by the juvenile court.

RESULTS: Age of onset of trauma exposure was within the first 5 years of life for 62% of youth and approximately one-third of youth report exposure to multiple or co-occurring trauma types each year into adolescence. Mental health problems are prevalent with 23.6% of youth meeting criteria for PTSD, 66.1% in the clinical range for externalizing problems, and 45.5% in the clinical range for internalizing problems. Early age of onset of trauma exposure was differentially associated with mental health problems and related risk factors among males and females.

CONCLUSIONS: The results indicate that justice-involved youth report high rates of trauma exposure and that this trauma typically begins early in life, is often in multiple contexts, and persists over time. Findings provide support for establishing trauma-informed juvenile justice systems that can respond to the needs of traumatized youth.

14. Violence Vict. 2013;28(3):513-30.

Adverse childhood experiences, posttraumatic stress disorder symptoms, and emotional intelligence in partner aggression.

Swopes RM, Simonet DV, Jaffe AE, Tett RP, Davis JL. University of Tulsa, Oklahoma 74104, USA.

Intimate partner violence (IPV) has been linked to childhood abuse, posttraumatic

stress disorder (PTSD), and low emotional intelligence (EI). Relationships among adverse childhood experiences (ACE), PTSD symptoms, and partner aggression (i.e., generalized tendency to aggress toward one's partner) were assessed in 108 male IPV offenders. It was hypothesized that ACE is positively correlated with partner aggression, PTSD mediates the ACE-aggression relationship, and the ACE-PTSD-aggression mediation varies by selected EI facets. Results indicate that ACE has an indirect effect on partner aggression via PTSD and PTSD mediates the ACE-aggression link when emotional self-regulation is low and when intuition (vs. reason) is high. Trauma-exposed IPV offenders may benefit from comprehensive treatments focusing on PTSD symptoms, emotional control, and reasoning skills to reduce aggression.

15. Psychiatry Res. 2013 Jul 11. pii: S0165-1781(13)00331-4. doi: 10.1016/j.psychres.2013.06.015. [Epub ahead of print]

Measuring trauma and stressful events in childhood and adolescence among patients with first-episode psychosis: Initial factor structure, reliability, and validity of the Trauma Experiences Checklist.

Cristofaro SL, Cleary SD, Ramsay Wan C, Broussard B, Chapman C, Haggard PJ, Jananeh S, Myers NL, Compton MT.

Emory University School of Medicine, Department of Psychiatry and Behavioral Sciences, Atlanta, GA, USA.

Past trauma and stressful events, especially in childhood and adolescence, are common among individuals with serious mental illnesses like schizophrenia. Traumatic experiences are thought to be a socio-environmental risk factor not only for poorer outcomes, but also potentially for the onset of these disorders. Because improved measurement tools are needed, we developed and studied, among 205 first-episode psychosis patients, the factor structure, internal consistency reliability, and initial validity of the Trauma Experiences Checklist (TEC), our measure of trauma and stressful events during childhood/adolescence. We assessed validity of subscales using correlations with Childhood Trauma Questionnaire-Short Form, Parental Harsh Discipline, Violence Exposure, and TEC-Informant Version scores. Exploratory factor analysis resulted in two internally consistent subscales (Cronbach's α =0.79 and 0.80, respectively), interpersonal abuse and family stress, and violence, death, and legal involvement. Scores from the former subscale were substantially associated with CTQ-SF physical, emotional, and sexual abuse (r=0.42-0.57, all p<0.001) and Violence Exposure (r=0.49, p<0.001). On the other hand, violence, death, and legal involvement scores were most highly correlated with Violence Exposure (r=0.49, p<0.001), and not with most CTQ-SF subscales. The TEC is a potentially

useful tool in assessing diverse traumatic life events across various social contexts during childhood and adolescence.

16. J Adolesc. 2013 Aug;36(4):717-25. doi: 10.1016/j.adolescence.2013.05.008. Epub 2013 Jun 22.

Latent structure of posttraumatic stress disorder symptoms in an adolescent sample one month after an earthquake.

Wang R, Wang L, Li Z, Cao C, Shi Z, Zhang J.

Key Laboratory of Mental Health, Institute of Psychology, Chinese Academy of Sciences, 16 Lincui Road, Beijing 100101, China; Graduate University of Chinese Academy of Sciences, Beijing, China.

Increasing empirical studies suggest that the tripartite posttraumatic stress disorder (PTSD) model described in the DSM-IV does not accurately account for the underlying PTSD factor structure, and several alternative models have been proposed. The present study investigated a newly refined, five-factor model of PTSD symptoms in a sample of Chinese adolescent survivors of an earthquake. A total of 1198 middle school students (653 females, 526 males) with a mean age of 14.4 years (SD = 1.1, range: 11-18) participated in this study one month after an earthquake. The novel five-factor model comprised of intrusion, avoidance, numbing, dysphoric arousal, and anxious arousal demonstrated significantly better fit than two alternative four-factor models. Further analyses revealed differentiable relations between the PTSD factors and external measures of anxiety and depression. These findings provide empirical support for the robustness of five-factor model, and carry implications for further reorganization of PTSD criteria.

17. Int J Adolesc Med Health. 2013 Jul 10:1-11. doi: 10.1515/ijamh-2013-0064. [Epub ahead of print]

Prevention of suicidal behavior in adolescents with post-traumatic stress disorder.

Ruby E, Sher L.

Abstract Post-traumatic stress disorder (PTSD) is significantly associated with an increased risk for suicidal behavior among adolescents. Suicide is one of the top three causes of adolescent deaths worldwide. Despite the strong relationship between PTSD and suicidal behavior, precise causal pathways linking PTSD to suicide in adolescents remains unclear. A slew of mediating factors and variables commonly present themselves with both suicide and PTSD, including co-morbid

psychiatric disorders, exposure to different forms of trauma and stressful life events, core neurobiological changes, and mental, emotional, and physiological states such as hyperarousal, impulsivity, and aggression. Because youth is such a critical stage of development, it is very important that at-risk adolescents are identified and referred for treatment. With many treatment challenges in these populations, effective implementation and use of prevention methods are of increasing importance. The most proven prevention methods include physician education, means restriction, and gatekeeper training. Other strategies that have received empirical support are public education campaigns and implementing guidelines for the media, including those for television, print media, and the Internet.

18. J Child Sex Abus. 2013 Jul;22(5):519-33. doi: 10.1080/10538712.2013.800932.

Perception vs. Circumstances of the Child Sexual Abuse Event in Relation to Depression and Post-traumatic Stress Symptomatology.

Lev-Wiesel R, Markus L. a University of Haifa , Haifa , Israel.

The study examined the impact of the circumstances of childhood sexual abuse on post-traumatic stress symptoms and depression among female adult survivors of childhood sexual abuse. The sample consisted of 225 Israeli women divided into two groups according to the identity of the perpetrator (nonfamily perpetrator versus a family member perpetrator). A self-report questionnaire was used consisting of the following scales: demographic variables, the Traumatic Events Questionnaire, Childhood Sexual Experiences Scale, Post-Traumatic Stress Disorder Symptom Scale, and Depression Scale. The findings indicated that the identity of the offender significantly differed between groups only if intercourse had occurred. Women who experienced coerced intercourse scored significantly higher on depression and post-traumatic stress compared to those who experienced other forms of childhood sexual abuse.

19. J Evid Based Med. 2013 May;6(2):118. doi: 10.1111/jebm.12041.

Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents.

Gillies D.

Western Sydney and Nepean Blue Mountains Local Health Districts - Mental Health, Parramatta, New South Wales, Australia.

20. J Psychosoc Oncol. 2013;31(3):235-65. doi: 10.1080/07347332.2013.778932.

Factors contributing to posttraumatic growth and its buffering effect in adult children of cancer patients undergoing treatment.

Teixeira RJ, Pereira MG.

School of Psychology, University of Minho, Braga, Portugal, ricardojft@gmail.com

This study examined relationships among demographic, clinical, and psychosocial variables in adult children of cancer patients. Two hundred and fourteen participants completed measures of posttraumatic growth (PTG), distress, posttraumatic stress disorder (PTSD) symptoms, social support, and family functioning. Significant gender differences in all PTG dimensions were found, as well as associations among PTG, gender, parental dependency, distress, PTSD, and family functioning. Social support was not a mediator in the relationship between gender and PTG. Gender, education, disease duration, dependency, distress, and family flexibility predicted PTG. Finally, PTG had a moderating effect in the relationship between distress and PTSD/social support. These results may guide psychosocial interventions in this population.

21. Proc Natl Acad Sci U S A. 2013 May 14;110(20):8302-7. doi: 10.1073/pnas.1217750110. Epub 2013 Apr 29.

Childhood maltreatment is associated with distinct genomic and epigenetic profiles in posttraumatic stress disorder.

Mehta D, Klengel T, Conneely KN, Smith AK, Altmann A, Pace TW, Rex-Haffner M, Loeschner A, Gonik M, Mercer KB, Bradley B, Müller-Myhsok B, Ressler KJ, Binder EB.

Max Planck Institute of Psychiatry, 80804 Munich, Germany, mehta@mpipsykl.mpg.de

Childhood maltreatment is likely to influence fundamental biological processes and engrave long-lasting epigenetic marks, leading to adverse health outcomes in adulthood. We aimed to elucidate the impact of different early environment on disease-related genome-wide gene expression and DNA methylation in peripheral blood cells in patients with posttraumatic stress disorder (PTSD). Compared with the same trauma-exposed controls (n = 108), gene-expression profiles of PTSD patients with similar clinical symptoms and matched adult trauma exposure but different childhood adverse events (n = 32 and 29) were almost completely nonoverlapping (98%). These differences on the level of individual transcripts were paralleled by the enrichment of several distinct biological networks between the groups. Moreover, these gene-expression changes were accompanied and likely mediated by changes in DNA methylation in the same loci to a much larger

proportion in the childhood abuse (69%) vs. the non-child abuse-only group (34%). This study is unique in providing genome-wide evidence of distinct biological modifications in PTSD in the presence or absence of exposure to childhood abuse. The findings that nonoverlapping biological pathways seem to be affected in the two PTSD groups and that changes in DNA methylation appear to have a much greater impact in the childhood-abuse group might reflect differences in the pathophysiology of PTSD, in dependence of exposure to childhood maltreatment. These results contribute to a better understanding of the extent of influence of differences in trauma exposure on pathophysiological processes in stress-related psychiatric disorders and may have implications for personalized medicine.

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22. Midwifery Today Int Midwife. 2013 Spring;(105):48-9, 68.

PTSD and obstetric violence.

Fernández IO.

Autonomous University of Madrid.

23. Rev Bras Psiquiatr. 2012 Dec;34(4):480-8.

Impact of childhood stress on psychopathology.

Brietzke E, Kauer Sant'anna M, Jackowski A, Grassi-Oliveira R, Bucker J, Zugman A, Mansur RB, Bressan RA.

Recognition and Intervention in Individuals in at-Risk Mental States, Department of Psychiatry, Universidade Federal de São Paulo, São Paulo, Brazil. elisabrietzke@hotmail.com

OBJECTIVE: Advances in our knowledge of mental disorder (MD) genetics have contributed to a better understanding of their pathophysiology. Nonetheless, several questions and doubts persist. Recent studies have focused on environmental influences in the development of MDs, and the advent of neuroscientific methodologies has provided new perspectives. Early life events, such as childhood stress, may affect neurodevelopment through mechanisms such as gene-environment interactions and epigenetic regulation, thus leading to diseases in adulthood. The aim of this paper is to review the evidence regarding the role of the environment, particularly childhood stress, in the pathophysiology of MD. METHODOLOGY: We reviewed articles that evaluated environmental influences, with a particular focus on childhood trauma, brain morphology, cognitive functions, and the development of psychopathology and MD.

RESULTS AND CONCLUSION: MRI studies have shown that exposure to trauma at an early age can result in several neurostructural changes, such as the reduction of the hippocampus and corpus callosum. Cognitive performance and functioning are also altered in this population. Finally, childhood stress is related to an increased risk of developing MD such as depression, bipolar disorder, schizophrenia and substance abuse. We conclude that there is robust evidence of the role of the environment, specifically adverse childhood experiences, in various aspects of MD.

24. Asian J Psychiatr. 2013 Feb;6(1):3-21. doi: 10.1016/j.ajp.2012.07.012. Epub 2012 Sep 6.

Psychobiology of PTSD in the acute aftermath of trauma: Integrating research on coping, HPA function and sympathetic nervous system activity.

Morris MC, Rao U.

Center for Molecular and Behavioral Neuroscience (MCM and UR) and the Department of Psychiatry and Behavioral Sciences (UR), Meharry Medical College, Nashville, TN 37208, United States. mmorris@mmc.edu

Research on the psychobiological sequelae of trauma has typically focused on long-term alterations in individuals with chronic posttraumatic stress disorder (PTSD). Far less is known about the nature and course of psychobiological risk factors for PTSD during the acute aftermath of trauma. In this review, we summarize data from prospective studies focusing on the relationships among sympathetic nervous system activity, hypothalamic-pituitary-adrenal function, coping strategies and PTSD symptoms during the early recovery (or non-recovery) phase. Findings from pertinent studies are integrated to inform psychobiological profiles of PTSD-risk in children and adults in the context of existing models of PTSD-onset and maintenance. Data regarding bidirectional relations between coping strategies and stress hormones is reviewed. Limitations of existing literature and recommendations for future research are discussed.

25. J Child Sex Abus. 2013;22(1):119-41. doi: 10.1080/10538712.2013.744646.

Young people who sexually abuse: a historical perspective and future directions.

Rasmussen LA.

San Diego State University, San Diego, CA 92182, USA. lucindarasmussen@cox.net

This article presents a historical overview of research on sexually abusive youth. The evolution of the field over the past 30 years is discussed-from the initial development of treatment interventions to contemporary efforts of

professionals to move from traditional, adult-oriented interventions toward developmentally sensitive assessment strategies and practice models. Focus is on two critical areas: risk assessment and trauma-informed care. The article reviews contemporary research on risk assessment tools, stressing the need for validated tools that can accurately assess youth and follow changes in risk over time. Etiological models for understanding effects of trauma (Trauma Outcome Process Assessment and Family Lovemap) are presented. Discussed are new ecologically based therapy models for working with sexually abusive youth that approach the youth holistically and are attuned to youths' needs, including providing interventions to address effects of past trauma.

26. J Adolesc Health. 2013 Feb;52(2):137-43. doi: 10.1016/j.jadohealth.2012.06.018. Epub 2012 Aug 17.

Traumatic stress and posttraumatic stress disorder in youth: recent research findings on clinical impact, assessment, and treatment.

Gerson R, Rappaport N.

Department of Child and Adolescent Psychiatry, New York University, Brooklyn, New York 10010, USA. ruthgerson@gmail.com

Childhood trauma can have a profound effect on adolescent development, with a lifelong impact on physical and mental health and development. Through a review of current research on the impact of traumatic stress on adolescence, this article provides a framework for adolescent health professionals in pediatrics and primary care to understand and assess the sequelae of traumatic stress, as well as up-to-date recommendations for evidence-based treatment. We first review empirical evidence for critical windows of neurobiological impact of traumatic stress, and then we discuss the connection between these neurobiological effects and posttraumatic syndromes, including posttraumatic stress disorder, depression, aggressive behavior, and psychosis. This article concludes by considering the implications of this current research for clinical assessment and treatment in pediatric and primary care settings.

27. Clin Child Psychol Psychiatry. 2013 Jan;18(1):3-6. doi: 10.1177/1359104512467406.

Setting the bar higher: what information do we need to establish the effectiveness of mental health interventions for children with complex attachment- and trauma-related difficulties?

Tarren-Sweeney M.

28. Addict Behav. 2013 Mar;38(3):1831-9. doi: 10.1016/j.addbeh.2012.10.012. Epub 2012

Oct 30.

Drinking motives for self and others predict alcohol use and consequences among college women: the moderating effects of PTSD.

Stappenbeck CA, Bedard-Gilligan M, Lee CM, Kaysen D.

Department of Psychiatry and Behavioral Sciences, University of Washington, 1107

NE 45th Street, Suite 201, Seattle, WA 98105, USA. cstappen@uw.edu

Although drinking motives have been shown to influence drinking behavior among women with trauma histories and PTSD, no known research has examined the influence of drinking motives on alcohol use and alcohol-related consequences for women with PTSD as compared to women with a trauma history but no PTSD and women with no trauma history. Therefore, the present study sought to examine the associations between drinking motives women held for themselves as well as their perception of the drinking motives of others and their own alcohol use and consequences, and whether this was moderated by a history of trauma and/or PTSD. College women (N=827) were categorized as either having no trauma exposure (n=105), trauma exposure but no PTSD (n=580), or PTSD (n=142). Results of regression analyses revealed that women with trauma exposure and PTSD consume more alcohol and are at greatest risk of experiencing alcohol-related consequences. A diagnosis of PTSD moderated the association between one's own depression and anxiety coping and conformity drinking motives and alcohol-related consequences. PTSD also moderated the association between the perception of others' depression coping motives and one's own consequences. These findings highlight the importance of providing alternative coping strategies to women with PTSD to help reduce their alcohol use and consequences, and also suggest a possible role for the perceptions regarding the reasons other women drink alcohol and one's own drinking behavior that may have important clinical implications.

29. Addict Behav. 2013 Mar;38(3):1719-25. doi: 10.1016/j.addbeh.2012.09.004. Epub 2012 Sep 12.

The impact of elevated posttraumatic stress on the efficacy of brief alcohol interventions for heavy drinking college students.

Monahan CJ, McDevitt-Murphy ME, Dennhardt AA, Skidmore JR, Martens MP, Murphy JG. Department of Psychology, The University of Memphis, 202 Psychology Building, Memphis, TN 38152, USA.

Brief alcohol interventions (BAIs) have been widely adopted for use with college students and are associated with significant reductions in drinking and problems. However, many students do not respond to these approaches and little is known about risk factors for poor response. The current study investigated one possible risk factor by examining the impact of posttraumatic stress (PTS) symptoms on BAI efficacy. This study presents pooled data from two randomized clinical trials that examined the efficacy of counselor-administered BAIs compared with computerized interventions. Participants were 207 college students (53.1% women, 68.1% White/Caucasian, 16.9% with elevated post-traumatic stress) who reported past-month heavy episodic drinking. Follow-up assessments were completed six months post-intervention. Analyses testing differences in frequency of past-month heavy episodic drinking revealed a significant post-traumatic stress by time interaction (F(1,165)=8.27, p=.005) such that individuals screening positive for PTS showed larger reductions in heavy episodic drinking at follow-up. A significant three-way interaction between time, PTS, and intervention condition (F(2,167)=5.76, p=.004) was found for alcohol related consequences. Specifically, among individuals screening positive for PTS, only those that received the counselor-administered BAI showed a significant reduction in consequences at follow-up. These results suggest that overall college students with PTS may respond well to BAIs and that counselor-delivered BAIs may be more efficacious than computer-delivered interventions for reducing alcohol problems for these high-risk students.

30. J Pain. 2013 Feb;14(2):165-71. doi: 10.1016/j.jpain.2012.10.013. Epub 2012 Dec 20.

μ-Opioid receptor gene A118G polymorphism predicts pain recovery after sexual assault.

Ballina LE, Ulirsch JC, Soward AC, Rossi C, Rotolo S, Linnstaedt SD, Heafner T, Foley KA, Batts J, Collette R, Holbrook D, Zelman S, McLean SA. TRYUMPH Research Program, University of North Carolina, Chapel Hill, North Carolina 27599-7010, USA.

Pain is common after sexual assault (SA), but etiology of pain symptoms after SA is unknown. Preclinical studies suggest that the release of endogenous opioids during stress produces delayed-onset hyperalgesia. In human studies, individuals with ≥ 1 G allele at the μ -opioid receptor functional single nucleotide polymorphism A118G have been shown to have a reduced response to opioids. We hypothesized that if opioid-mediated hyperalgesia contributes to pain after SA, women SA survivors with 1 or more G alleles at A118G would experience reduced postassault pain. Among 52 European American women SA survivors presenting for care within 48 hours of SA, those with a G allele (12/52, 23%) experienced less severe pain (F[1,39] = 11.55, P = .002) and a reduced extent of pain (F[1,41] = 11.01, P = .002) during the 6 weeks after SA. These associations

between the presence of 1 or more G alleles and reduced pain severity and reduced pain extent after SA remained significant in multivariable models controlling for age, income, education, reported pain prior to assault, and pain at the time of initial evaluation. PERSPECTIVE: These results suggest that endogenous opioid-mediated hyperalgesia may contribute to pain symptoms after sexual assault. Further studies examining mechanisms mediating the development of pain after sexual assault, and the potential influence of opioid-mediated hyperalgesia, are needed.

31. J Behav Ther Exp Psychiatry. 2013 Jun;44(2):227-30. doi: 10.1016/j.jbtep.2012.11.002. Epub 2012 Nov 28.

Are habitual overgeneral recollection and prospection maladaptive?

Robinaugh DJ, Lubin RE, Babic L, McNally RJ.

Department of Psychology, Harvard University, 33 Kirkland Street, Cambridge, MA 02138, USA. robinaug@fas.harvard.edu

BACKGROUND AND OBJECTIVES: Individuals with depression exhibit difficulty retrieving specific memories and imagining specific future events when instructed to do so relative to non-clinical comparison groups. Instead of specific events, depressed individuals frequently retrieve or imagine "overgeneral" memories that span a long period of time or that denote a category of similar events. Recently, Raes, Hermans, Williams, and Eelen (2007) developed a sentence completion procedure (SCEPT) to assess the tendency to recall overgeneral autobiographical memories. They found that specificity on this measure was associated with depression and rumination. We aimed to replicate these findings and to examine the tendency to imagine overgeneral future events.

METHODS: We had 170 subjects complete past (SCEPT) and future-oriented (SCEFT) sentence completion tasks and measures of depression severity, PTSD severity, hopelessness, and repetitive negative thought.

RESULTS: Although specificities of past and future events were correlated, neither SCEPT nor SCEFT specificity was negatively associated with depression severity, posttraumatic stress symptoms, repetitive negative thought (RNT), or hopelessness.

LIMITATIONS: Our data are cross-sectional, preventing any determination of causality and limiting our assessment of whether specificity is associated with psychological distress following a stressful life event. In addition, we observed poor internal consistency for both the SCEPT and SCEFT.

CONCLUSIONS: These findings fail to support the hypothesis that overgeneral memory and prospection on these tasks are associated with psychological distress.

32. J Behav Ther Exp Psychiatry. 2013 Jun;44(2):221-6. doi: 10.1016/j.jbtep.2012.11.004. Epub 2012 Nov 28.

Vividness of general mental imagery is associated with the occurrence of intrusive memories.

Morina N, Leibold E, Ehring T.

Department of Clinical Psychology, University of Amsterdam, The Netherlands. n.morina@uva.nl

BACKGROUND AND OBJECTIVES: Intrusive memories of traumatic events constitute a core feature of post-traumatic stress disorder. However, the association of pre-traumatic factors with post-traumatic intrusive memories is still only poorly understood. The current study investigated the extent to which vividness of general mental imagery prior to an analogue stressor is positively associated with occurrence of intrusive images following such a stressor.

METHODS: Sixty-seven participants were exposed to video material depicting the aftermath of serious road traffic accidents. Additionally, participants filled in questionnaires on mental imagery, affect, peri-traumatic processing style, and intrusive memories.

RESULTS: Vividness of mental imagery before the analogue stressor correlated positively with the amount, vividness, and emotional distress due to intrusive images shortly after the analogue stressor and on the subsequently five days. Importantly, mental imagery assessed pre-stressor was associated with intrusive memories independently of trait anxiety and depression as well as participants' emotional response to the video. Peri-traumatic data-driven processing was also related to intrusive memories but not to the vividness of pre-stressor mental imagery.

LIMITATIONS: An analogue design was used. Results need to be replicated in a prospective design with survivors of traumatic events according to DSM-IV criteria.

CONCLUSIONS: The findings indicate that high levels of vividness of general mental imagery may contribute to the development of intrusive imaginal memories following exposure to traumatic events.

33. J Behav Ther Exp Psychiatry. 2013 Jun;44(2):213-20. doi: 10.1016/j.jbtep.2012.10.001. Epub 2012 Oct 29.

Perceptual processing during trauma, priming and the development of intrusive memories.

Sündermann O. Hauschildt M. Ehlers A.

Department of Psychology, King's College London, Institute of Psychiatry, London, UK.

BACKGROUND: Intrusive reexperiencing in posttraumatic stress disorder (PTSD) is commonly triggered by stimuli with perceptual similarity to those present during the trauma. Information processing theories suggest that perceptual processing during the trauma and enhanced perceptual priming contribute to the easy triggering of intrusive memories by these cues.

METHODS: Healthy volunteers (N = 51) watched neutral and trauma picture stories on a computer screen. Neutral objects that were unrelated to the content of the stories briefly appeared in the interval between the pictures. Dissociation and data-driven processing (as indicators of perceptual processing) and state anxiety during the stories were assessed with self-report questionnaires. After filler tasks, participants completed a blurred object identification task to assess priming and a recognition memory task. Intrusive memories were assessed with telephone interviews 2 weeks and 3 months later.

RESULTS: Neutral objects were more strongly primed if they occurred in the context of trauma stories than if they occurred during neutral stories, although the effect size was only moderate [Formula: see text] and only significant when trauma stories were presented first. Regardless of story order, enhanced perceptual priming predicted intrusive memories at 2-week follow-up (N = 51), but not at 3 months (n = 40). Data-driven processing, dissociation and anxiety increases during the trauma stories also predicted intrusive memories. Enhanced perceptual priming and data-driven processing were associated with lower verbal intelligence.

LIMITATIONS: It is unclear to what extent these findings generalize to real-life traumatic events and whether they are specific to negative emotional events. CONCLUSIONS: The results provide some support for the role of perceptual processing and perceptual priming in reexperiencing symptoms.

34. Brain Dev. 2013 Mar;35(3):214-9. doi: 10.1016/j.braindev.2012.09.013. Epub 2012 Nov 3.

Post-Traumatic Stress Disorders and mental health care (lessons learned from the Hanshin-Awaji Earthquake, Kobe, 1995).

Takada S.

Department of Community Health Sciences, Graduate School of Health Sciences, Kobe University, Kobe, Japan. satoshi@kobe-u.ac.jp

The Hanshin-Awaji Earthquake of 1995 and has moved through the various phases into the recovery stage. After the earthquake we conducted two surveys involving approximately 8000 families with pre-school aged children and 466 families with disabled children. Symptoms related to PTSD were found more frequently in the

small children whose houses had been severely damaged one year after the earthquake. Although the symptoms decreased, they were still present more frequently in the children and their mothers with severely damaged homes in 1998. Our results show children with intellectual or emotional disabilities displayed many behavioral problems. The physically disabled children required medical resources and specialized support in a structured environment. Both groups voiced the need to set up specialized facilities for people with disabilities. Following the Central Java Earthquake in 2006, we have engaged in "children house" activities in the disaster stricken area in collaboration with Gadjah Mada University. Through this activity, we have been able to share what works in helping children with disabilities and their families. From our experience we have found exchanging of information among the people in the disaster stricken areas helps to reduce the psychological damage of the children and aids in their recovery process.

35. Biol Psychiatry. 2013 Feb 15;73(4):302-12. doi: 10.1016/j.biopsych.2012.08.022. Epub 2012 Oct 9.

Dissociation in posttraumatic stress disorder: evidence from the world mental health surveys.

Stein DJ, Koenen KC, Friedman MJ, Hill E, McLaughlin KA, Petukhova M, Ruscio AM, Shahly V, Spiegel D, Borges G, Bunting B, Caldas-de-Almeida JM, de Girolamo G, Demyttenaere K, Florescu S, Haro JM, Karam EG, Kovess-Masfety V, Lee S, Matschinger H, Mladenova M, Posada-Villa J, Tachimori H, Viana MC, Kessler RC. Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa.

Comment in

Biol Psychiatry. 2013 Feb 15;73(4):296-7.

BACKGROUND: Although the proposal for a dissociative subtype of posttraumatic stress disorder (PTSD) in DSM-5 is supported by considerable clinical and neurobiological evidence, this evidence comes mostly from referred samples in Western countries. Cross-national population epidemiologic surveys were analyzed to evaluate generalizability of the subtype in more diverse samples.

METHODS: Interviews were administered to 25,018 respondents in 16 countries in the World Health Organization World Mental Health Surveys. The Composite International Diagnostic Interview was used to assess 12-month DSM-IV PTSD and other common DSM-IV disorders. Items from a checklist of past-month nonspecific psychological distress were used to assess dissociative symptoms of depersonalization and derealization. Differences between PTSD with and without

these dissociative symptoms were examined across a variety of domains, including index trauma characteristics, prior trauma history, childhood adversity, sociodemographic characteristics, psychiatric comorbidity, functional impairment, and treatment seeking.

RESULTS: Dissociative symptoms were present in 14.4% of respondents with 12-month DSM-IV/Composite International Diagnostic Interview PTSD and did not differ between high and low/middle income countries. Symptoms of dissociation in PTSD were associated with high counts of re-experiencing symptoms and net of these symptom counts with male sex, childhood onset of PTSD, high exposure to prior (to the onset of PTSD) traumatic events and childhood adversities, prior histories of separation anxiety disorder and specific phobia, severe role impairment, and suicidality.

CONCLUSION: These results provide community epidemiologic data documenting the value of the dissociative subtype in distinguishing a meaningful proportion of severe and impairing cases of PTSD that have distinct correlates across a diverse set of countries.

36. Biol Psychiatry. 2013 Feb 15;73(4):379-87. doi: 10.1016/j.biopsych.2012.08.016. Epub 2012 Sep 26.

Cortisol response to social stress in parentally bereaved youth.

Dietz LJ, Stoyak S, Melhem N, Porta G, Matthews KA, Walker Payne M, Brent DA. Department of Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh, PA 15213, USA.

BACKGROUND: Parental bereavement is associated with increased risk for psychiatric illness and functional impairment in youth. Dysregulated hypothalamic-pituitary-adrenal (HPA) axis functioning may be one pathway through which bereaved children experience increased risk for poor outcomes. However, few studies have prospectively examined the association between parental bereavement and cortisol response while accounting for psychiatric disorders in both youth and their caregivers.

METHODS: One-hundred and eighty-one bereaved and nonbereaved offspring and their caregivers were assessed at multiple time points over a 5-year period after parental death. Offspring participated in an adaptation of the Trier Social Stress Task (TSST), and salivary cortisol samples were collected before and after exposure to social stressors. Mixed models for repeated measures were used to analyze the effects of bereavement status, psychiatric disorder in both offspring and caregiver, and demographic indices on trajectories of cortisol response.

RESULTS: After controlling for demographic variables and offspring depression, bereaved offspring demonstrated significantly different trajectories of cortisol

response compared with nonbereaved offspring, characterized by higher total cortisol output and an absence of cortisol reactivity to acute social stress. Within the bereaved group, offspring of parents who died by sudden natural death demonstrated significant cortisol reactivity to social stress compared with offspring whose parents died by suicide, who demonstrated more blunted trajectory of cortisol response.

CONCLUSIONS: Parentally bereaved youth demonstrate higher cortisol output than nonbereaved youth but are less able to mount an acute response in the face of social stressors.

37. Cogn Affect Behav Neurosci. 2013 Mar;13(1):186-96. doi: 10.3758/s13415-012-0123-9.

Individual differences in spatial configuration learning predict the occurrence of intrusive memories.

Meyer T, Smeets T, Giesbrecht T, Quaedflieg CW, Girardelli MM, Mackay GR, Merckelbach H.

Faculty of Psychology and Neuroscience, Maastricht University, P.O. Box 616, 6200 MD, Maastricht, The Netherlands. thomas.meyer@maastrichtuniversity.nl

The dual-representation model of posttraumatic stress disorder (PTSD; Brewin, Gregory, Lipton, & Burgess, Psychological Review, 117, 210-232 2010) argues that intrusions occur when people fail to construct context-based representations during adverse experiences. The present study tested a specific prediction flowing from this model. In particular, we investigated whether the efficiency of temporal-lobe-based spatial configuration learning would account for individual differences in intrusive experiences and physiological reactivity in the laboratory. Participants (N = 82) completed the contextual cuing paradigm, which assesses spatial configuration learning that is believed to depend on associative encoding in the parahippocampus. They were then shown a trauma film. Afterward, startle responses were quantified during presentation of trauma reminder pictures versus unrelated neutral and emotional pictures. PTSD symptoms were recorded in the week following participation. Better configuration learning performance was associated with fewer perceptual intrusions, r = -.33, p < .01, but was unrelated to physiological responses to trauma reminder images (ps > .46) and had no direct effect on intrusion-related distress and overall PTSD symptoms, rs > -.12, ps > .29. However, configuration learning performance tended to be associated with reduced physiological responses to unrelated negative images, r = -.20, p = .07. Thus, while spatial configuration learning appears to be unrelated to affective responding to trauma reminders, our overall findings support the idea that the context-based memory system helps to reduce intrusions.

38. J Sleep Res. 2013 Feb;22(1):76-82. doi: 10.1111/j.1365-2869.2012.01040.x. Epub 2012 Jul 30.

Quantitative electroencephalography during rapid eye movement (REM) and non-REM sleep in combat-exposed veterans with and without post-traumatic stress disorder.

Cohen DJ, Begley A, Alman JJ, Cashmere DJ, Pietrone RN, Seres RJ, Germain A. University of Pittsburgh School of Medicine, Pittsburgh, PA 15213, USA.

Sleep disturbances are a hallmark feature of post-traumatic stress disorder (PTSD), and associated with poor clinical outcomes. Few studies have examined sleep quantitative electroencephalography (qEEG), a technique able to detect subtle differences that polysomnography does not capture. We hypothesized that greater high-frequency qEEG would reflect 'hyperarousal' in combat veterans with PTSD (n = 16) compared to veterans without PTSD (n = 13). EEG power in traditional EEG frequency bands was computed for artifact-free sleep epochs across an entire night. Correlations were performed between qEEG and ratings of PTSD symptoms and combat exposure. The groups did not differ significantly in whole-night qEEG measures for either rapid eye movement (REM) or non-REM (NREM) sleep. Non-significant medium effect sizes suggest less REM beta (opposite to our hypothesis), less REM and NREM sigma and more NREM gamma in combat veterans with PTSD. Positive correlations were found between combat exposure and NREM beta (PTSD group only), and REM and NREM sigma (non-PTSD group only). Results did not support global hyperarousal in PTSD as indexed by increased beta qEEG activity. The correlation of sigma activity with combat exposure in those without PTSD and the non-significant trend towards less sigma activity during both REM and NREM sleep in combat veterans with PTSD suggests that differential information processing during sleep may characterize combat-exposed military veterans with and without PTSD.

39. Psychiatr Q. 2013 Mar;84(1):115-24. doi: 10.1007/s11126-012-9232-4. Mental health approaches to child victims of acts of terrorism.

Saraiya A, Garakani A, Billick SB.

New York University School of Medicine, 200 West 70th Street, Suite 16R, New York, NY 10023, USA.

It has long been recognized that human beings exposed to severe stress may develop psychological symptoms. With recent terrorist acts around the world including the New York City World Trade Center September 11, 2001 atrocity, there

has been a growing interest in the specific impact of terrorist acts on the victims and witnesses. One area that has received less study is the specific impact on children. This paper reviews some of the general effects of traumatic stress on children and the history of the research in this area including a specific discussion of post-traumatic stress disorder in children. This is followed by a review of how children might react to the trauma of a terrorist attack differentiating between three different subgroups of children (preschool age children, school-age children, and adolescents). Then there is a review of what a comprehensive evaluation of childhood victims of terrorism should entail. Finally, treatment modalities that have been shown to be effective are reviewed.

40. Psychiatr Q. 2013 Mar;84(1):11-26. doi: 10.1007/s11126-012-9223-5.

The relationship between forgiveness, spirituality, traumatic guilt and posttraumatic stress disorder (PTSD) among people with addiction.

Langman L, Chung MC.

Faculty of Health, Education and Society, School of Social Science and Social Work, University of Plymouth, Plymouth, UK.

Spirituality and forgiveness have been shown to be associated with psychological well-being, while guilt has been associated with poor health. Little is known, however, about the relationship between forgiveness, spirituality, guilt, posttraumatic stress (PTSD) and psychological co-morbidity among people in recovery from addiction. Eighty-one people (F = 36, M = 45) in recovery from drug and alcohol addiction were recruited from two residential units and two drop-in centres in a city in the United Kingdom. They completed the Posttraumatic Stress Diagnostic Scale (PDS), the General Health Questionnaire-28 (GHQ-28), the Spiritual Involvement and Beliefs Scale (SIBS), the Heartland Forgiveness Scale (HFS), the Traumatic Guilt Inventory (TGI), the Michigan Alcoholism Screening Test (MAST-22) and the Drug Abuse Screening Test (DAST-20). The control group comprised of 83 (F = 34, M = 49) individuals who confirmed that they did not have addiction and completed the PDS & GHQ-28. 54 % of the addiction group met the criteria for full PTSD and reported anxiety, somatic problems and depression. They described themselves as spiritual, had strong feelings of guilt associated with their addiction, and had difficulty in forgiving themselves. Controlling for demographics, number of events and medication management, regression analyses showed that spirituality predicted psychological co-morbidity, whilst feelings of guilt predicted PTSD symptoms and psychological co-morbidity. Unexpectedly, forgiveness did not predict outcomes. This study supports existing literature, which shows that people with drug and alcohol addiction tend to have experienced significant past trauma and PTSD symptoms. Their posttraumatic stress reactions

and associated psychological difficulties can be better understood in the light of guilt and spirituality. Meanwhile, their ability to forgive themselves or others did not seem to influence health outcomes.

41. Child Care Health Dev. 2013 Mar;39(2):228-36. doi: 10.1111/j.1365-2214.2011.01359.x. Epub 2012 Feb 13.

Child maltreatment: the Lebanese children's experiences.

Usta J, Farver JM, Danachi D.

Department of Family Medicine, American University of Beirut, Lebanon.

BACKGROUND: This study examined the prevalence, risk factors and consequences associated with child maltreatment in the home.

METHODS: The sample was 1028 (556 boys; 472 girls) Lebanese children aged 8-17 years (M = 11.89; SD = 1.67). Children were administered an interview questionnaire that included the International Child Abuse Screening Tool, the Trauma Symptom Checklist and the Family Functioning in Adolescence Questionnaire. RESULTS: Approximately 30% of the children reported at least one incident of witnessing violence, 65% reported at least one incident of psychological abuse and 54% reported at least one incident of physical abuse over a 1-year period. The results showed an overlap between children's reports of witnessing violence in their homes and physical and psychological abuse that were associated with adolescents' trauma symptoms. Family-related variables significantly predicted three forms of child maltreatment.

CONCLUSION: These results highlight the importance of examining children's multiple experiences of violence in their homes in research designs, prevention efforts and policy mandates. However, it should be noted that estimates of prevalence (as opposed to estimates of the relation between variables which is relatively more robust to selection bias) are open to error because of the nature of our sample.

42. Psychooncology. 2013 Feb;22(2):324-9. doi: 10.1002/pon.2091. Epub 2011 Oct 21.

Mothers and fathers of children with cancer: loss of control during treatment and posttraumatic stress at later follow-up.

Norberg AL, Boman KK.

Department of Woman and Child Health, Childhood Cancer Research Unit, Karolinska Institutet, Stockholm, Sweden. annika.lindahl.norberg@ki.se

BACKGROUND: A child's cancer can lead to changes in parental role functioning, including loss of control. We studied the extent to which parental perceived loss

of control during a child's cancer treatment predicted posttraumatic stress symptoms (PTSS) after completion of treatment. METHOD AND PARTICIPANTS: The sample of this longitudinal study included 62 parents (36 mothers and 26 fathers) of children currently in treatment for malignant disease (T1) and after completion of treatment (T2). Loss of control was assessed at T1 using a self-report measure, that is the loss of control module of the Parental Psychosocial Distress-Cancer questionnaire. PTSS were assessed at T2 using the Impact of Event Scale-Revised. Main analyses were carried out for mothers and fathers separately.

RESULTS: The majority of the parents, 55% (n = 34), reported loss of control on more than half of the assessed domains. Only 5% (n = 3) reported no loss of control whatsoever. At T2, some degree of PTSS was reported by 89% (n = 55). These outcomes were similar for mothers and fathers. Loss of control at T1 predicted stronger PTSS at T2 primarily among mothers.

CONCLUSION: The experience of loss of control during cancer treatment is a salient risk factor for later PTSS in mothers. The situational threat to the regular parental role is discussed as an explanation to this observation. Interventions should address informational needs, parent participation in care, and professional support to maintain a sense of control and functioning in their parental role.

43. Child Care Health Dev. 2013 Mar;39(2):171-7. doi: 10.1111/j.1365-2214.2011.01328.x. Epub 2011 Oct 12.

Child coping, parent coping assistance, and post-traumatic stress following paediatric physical injury.

Marsac ML, Donlon KA, Winston FK, Kassam-Adams N.
Center for Injury Research & Prevention, The Children's Hospital of Philadelphia, Philadelphia, PA 19104, USA. marsac@email.chop.edu

BACKGROUND: Following a physical injury, many children exhibit long-term psychological reactions such as post-traumatic stress symptoms (PTSS). Children's coping strategies, and the ways that others help them cope with injury (i.e. coping assistance), are understudied, potentially malleable variables that could be targeted in preventive interventions. The objectives of the current research were to describe child coping behaviour and parent coping assistance following a child's injury, and to investigate the relationships among coping, coping assistance and child PTSS.

METHOD: Participants included 82 children with injuries and one parent of each child. Children completed measures of coping and coping assistance 2 weeks after their injury (T1). Children also completed measures of coping and PTSS at a

3-month follow-up (T2). Parents reported on the coping assistance they provided to their child at T1.

RESULTS: Children reported using an average of six coping strategies (out of 10) with wishful thinking, social support, distraction, and cognitive restructuring endorsed most frequently. Child-reported social withdrawal and resignation 2 weeks after his or her injury (T1) were related to subsequent PTSS (T2). Social withdrawal at T2 was related to concurrent child PTSS (T2). Children were more likely to seek social support when their parents reported helping their child cope. No relationships were identified between active coping behaviours or parent coping assistance and PTSS outcomes.

CONCLUSIONS: Findings suggest that children's coping strategies (particularly social withdrawal and resignation) play a possibly important, complex role in the development of traumatic stress symptoms. When parents help their child cope, children are more likely to seek out social support, suggesting that they will be more able to ask their parents for help as needed. Future research should identify effective strategies to prevent PTSS including how parents can best support their child following paediatric injury.

44. Int J Clin Oncol. 2012 Jun;17(3):272-5. doi: 10.1007/s10147-011-0286-3. Epub 2011 Jul 12.

Posttraumatic stress symptom (PTSS) and posttraumatic growth (PTG) in parents of childhood, adolescent and young adult patients with high-grade osteosarcoma.

Yonemoto T, Kamibeppu K, Ishii T, Iwata S, Tatezaki S. Division of Orthopaedic Surgery, Chiba Cancer Center, 666-2 Nitona-cho, Chuo-ku, Chiba, 260-8717, Japan. tyonemot@chiba-cc.jp

BACKGROUND: Posttraumatic stress symptom (PTSS) and posttraumatic growth (PTG) were surveyed in parents of childhood, adolescent and young adult patients with high-grade osteosarcoma.

METHODS: A questionnaire survey was performed in parents of patients with osteosarcoma (51 families). The Impact of Event Scale-Revised (IES-R) and posttraumatic growth inventory (PTGI) were employed for the evaluation of PTSS and PTG, respectively. The mean scores were compared with those in preceding studies employing the same scales. In addition, the correlation between the IES-R and PTGI scores was investigated in the parents.

RESULTS: Fifty-eight subjects of 34 families (30 fathers and 28 mothers) replied to the questionnaire. The mean IES-R score in the parents was 18.5, which was higher than that in patients with osteosarcoma (9.7) in our previous study. The mean PTGI score in the parents was 44.9, which was higher than that in university students (33.9) reported by Taku et al. A positive correlation was noted between

the IES-R and PTGI scores in the parents.

CONCLUSIONS: The PTSS level tended to be higher in the parents rather than in patients with osteosarcoma. The PTG level increased as the PTSS level rose in the parents.