

September, 2013 PILOTS Topic Alert

Aguirre, R. T. P. and V. Pillai (2013). "Community traumatic events and the temporal distribution of suicide and calls to the suicide and crisis hotline: is there an impact?" *Traumatology* 19(3): 233-242.

Survivors of community traumatic events (CTEs) are thought to be at an increased risk for suicide. Current studies of the impact of CTEs on suicide have (a) produced varied results and (b) not accounted for co-occurrences or series of CTEs. The purpose of this study was to determine if a relationship exists between the temporal distribution of CTEs and the temporal distribution of suicide and calls to the crisis hotline in a Louisiana parish, taking into account co-occurrences and series of CTEs. The sample consisted of 11 years of data on suicidal deaths and 5 years of data on calls to the crisis hotline. Poisson regression was used to assess whether suicide patterns and hotline call volume were affected by CTEs. The distributions of suicide and calls to the crisis hotline were not affected by the presence of single, co-occurring, or series of CTEs. Though suicide prevention efforts are often increased after CTEs, this study indicates suicide prevention efforts should be ongoing and have a community-wide focus. Given the varied results across studies of CTE impact on suicide distributions, further research should focus on co-occurrence and series of CTEs rather than the historical trend of focusing on a single CTE. Also, psychological autopsies of people who died by suicide in the wake of a CTE should be conducted using phenomenology as the guiding qualitative paradigm.

Beals, J., S. M. Manson, et al. (2013). "Lifetime prevalence of posttraumatic stress disorder in two American Indian reservation populations." *Journal of Traumatic Stress* 26(4): 512-520.

PTSD has been found to be more common among American Indian populations than among other Americans. A complex diagnosis, the assessment methods for PTSD have varied across epidemiological studies, especially in terms of the trauma criteria. Here, we examined data from the American Indian Service Utilization, Psychiatric Epidemiology, Risk and Protective Factors Project (AI-SUPERPPF) to estimate the lifetime prevalence of PTSD in two culturally distinct American Indian reservation communities, using two formulas for calculating PTSD prevalence. The AI-SUPERPPF was a cross-sectional probability sample survey conducted between 1997 and 2000. Southwest (n = 1,446) and Northern Plains (n = 1,638) tribal members living on or near their reservations, aged 15-57 years at time of interview, were randomly sampled from tribal rolls. PTSD estimates were derived based on both the single worst and 3 worst traumas. Prevalence estimates varied by ascertainment method: single worst trauma (lifetime: 5.9% to 14.8%) versus 3 worst traumas (lifetime, 8.9% to 19.5%). Use of the 3-worst-event approach increased prevalence by 28.3% over the single-event method. PTSD was prevalent in these tribal communities. These results also serve to underscore the need to better understand the implications for PTSD prevalence with the current focus on a single worst event.

Cavanaugh, C. E., S. S. Martins, et al. (2013). "Mental disorders associated with subpopulations of women affected by violence and abuse." *Journal of Traumatic Stress* 26(4): 459-466.

Violence against women is a major public health problem associated with mental disorders. Few studies have examined the heterogeneity of interpersonal violence and abuse (IVA) among women and associated mental health problems. Latent class analysis was used to identify subpopulations of women with similar lifetime histories of IVA victimization and to examine 10 associated past-year mental disorders. Participants were 19,816 adult women who participated in Wave 2 of the National Epidemiologic Study on Alcohol and Related Conditions (NESARC). The 3-class model was best supported by the data. Class 1 (6.7%) had a high probability of witnessing domestic violence as a child. Class 2 (21.8%) had a low probability of all events except lifetime sexual assault. Class 3 (71.5%) had a low probability for all events. Mental disorders were more common among members of Classes 1 and 2 than Class 3. For example, members in Class 1 were approximately 8 and 9 times more likely than members in Class 3 to have had PTSD or a drug use disorder, respectively, during the past year. Of the 10 mental disorders, 5 were more common among members of Class 1 than of Class 2. Findings suggest the mental health consequences of IVA among women are extensive and interventions should be tailored for distinct subpopulations affected by IVA.

Cronholm, P. F., T. Ismailji, et al. (2013). "Academy on Violence and Abuse: highlights of proceedings from the 2011 conference, "Toward a new understanding"." *Trauma, Violence, and Abuse: A Review Journal*.

In April 2011, the Academy on Violence Abuse convened a network of experts for its second annual conference, "Developing the Science of Violence and Abuse: Toward a New Understanding". The conference served as a forum for highlighting the growing body of research regarding the biological consequences and adverse health consequences of abuse. In doing so, it underscored an important scientific premise: by evaluating the impact of violence and abuse from birth to death, one can better evaluate the social, behavioral, psychological, and biological context and pathways that result in the morbidity, mortality, and quality of life of all affected individuals and communities. In this article, we summarize content presented by the conference's keynote speakers and provide citations that speakers have submitted to support their statements.

Ford, J. D. (2013). "Trauma exposure and posttraumatic stress disorder in the lives of adolescents [editorial]." *Journal of the American Academy of Child and Adolescent Psychiatry* 52(8): 780-783.

Introduces an epidemiologic study that provides definitive evidence that trauma exposure is normative by the time children reach adolescence, and that adolescent PTSD prevalence levels approach those of adults.

Goslin, M. C., C. S. Stover, et al. (2013). "Identifying youth at risk for difficulties following a traumatic event: pre-event factors are associated with acute symptomatology." *Journal of Traumatic Stress* 26(4): 475-482.

This study examined factors related to children's acute symptoms following a potentially traumatic event (PTE) to more clearly identify domains that should be included in screenings of youth exposed to a PTE. In particular, the authors examined whether trauma category (i.e., sexual abuse/disclosure of abuse, intentionally perpetrated traumas other than sexual abuse, and unintentional traumas) was related to symptoms after controlling for other relevant factors. Participants were 112 youth presenting for clinical evaluation within a month of a PTE and their nonoffending caregivers. Using data from baseline assessments collected as part of a randomized controlled trial of a secondary prevention program, the following factors were tested in 3 hierarchical regression models: index PTE category, history of traumatic exposure, preindex event functioning, and parenting behaviors. Prior trauma exposure, preindex event functioning, and hostile parenting were uniquely related to children's symptoms in the acute posttraumatic period after controlling for time since the event and child age, but trauma category was not. Implications for identifying and referring children at high risk for poor outcomes in the early aftermath of a PTE are discussed. An exclusive focus on the event is insufficient and more comprehensive understanding of the child and family is required.

Holmes, M. R. (2013). "Aggressive behavior of children exposed to intimate partner violence: an examination of maternal mental health, maternal warmth and child maltreatment." *Child Abuse and Neglect* 37(8): 520-530.

OBJECTIVES: Over 4.5 million children each year are exposed to intimate partner violence (IPV). Furthermore, IPV rarely occurs without other forms of violence and aggression in the home. IPV is associated with mental health and parenting problems in mothers, and children experience a wide variety of short-term social adjustment and emotional difficulties, including behavioral problems. The current study investigated the influence of IPV exposure on children's aggressive behavior, and tested if this relation was mediated by poor maternal mental health, and, in turn, by maternal warmth and child maltreatment, and moderated by children's age and gender. Study findings highlight the indirect consequences of IPV in the home on children's aggressive behavior. **METHODS:** Secondary data analysis using structural equation modeling (SEM) was conducted with the National Survey of Child and Adolescent Well-Being (NSCAW). Children were between the ages of 3-8 ($n = 1,161$). Mothers reported past year frequency of physical assault by their partner, frequency of child psychological and physical abuse, maternal mental health, and children's aggressive behavior problems. Maternal warmth was measured by observation. **RESULTS:** IPV was significantly related to poor maternal mental health. Poor maternal mental health was associated with more child aggressive behavior, lower maternal warmth, and more frequent child physical and psychological abuse. Psychological abuse and low maternal warmth were directly related to more aggressive behavior while IPV exposure and physical abuse were not directly associated with aggressive behavior. Neither age nor gender moderated the modeled paths. **CONCLUSIONS:** Expanding knowledge about child outcomes is especially critical for children who were involved in investigations of child maltreatment by child protective services (CPS) in order to identify relevant risk factors that can lead to interventions. The results identified maternal mental health as an important variable in mediating the relationship between IPV exposure and aggressive behavior. One implication is for

multicomponent family interventions that could be tailored toward helping the mother cope with such mental health issues while also addressing deficits in children's social behavior development.

Keeshin, B. R., J. R. Strawn, et al. (2013). "Cortisol awakening response in adolescents with acute sexual abuse related posttraumatic stress disorder." *Depression and Anxiety*.

BACKGROUND: Little is known regarding changes in the hypothalamic-pituitary-adrenal axis (HPA axis) of adolescent girls with and without 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:** 24 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 minutes 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.

Leenarts, L. E. W., R. R. J. M. Vermeiren, et al. (2013). "Relationships between interpersonal trauma, symptoms of posttraumatic stress disorder, and other mental health problems in girls in compulsory residential care." *Journal of Traumatic Stress* 26(4): 526-529.

This cross-sectional study examined the relationships (using structural equation modeling) between exposure to early-onset interpersonal trauma, symptoms of PTSD, symptoms of complex PTSD, and other mental health problems. The participants were 92 girls recruited from 3 residential treatment facilities. Exposure to early-onset interpersonal trauma was directly related to mental health problems and symptoms of PTSD mediated the relationship between exposure to early-onset interpersonal trauma and mental health problems. Symptoms of complex PTSD did not significantly mediate this relationship. These findings have direct implications for rehabilitation efforts in girls in compulsory residential care.

Marsac, M. L., K. L. Kohser, et al. (2013). "Using a web-based game to prevent posttraumatic stress in children following medical events: design of a randomized controlled trial." *European Journal of Psychotraumatology* 4.

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:** 70 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.

McLaughlin, K. A., K. C. Koenen, et al. (2013). "Trauma exposure and posttraumatic stress disorder in a national sample of adolescents." *Journal of the American Academy of Child and Adolescent Psychiatry* 52(8): 815-830.

OBJECTIVE: Although exposure to potentially traumatic experiences (PTEs) is common among youths in the United States, information on 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.

Putnam, K. T., W. W. Harris, et al. (2013). "Synergistic childhood adversities and complex adult psychopathology." *Journal of Traumatic Stress* 26(4): 435-442.

Numerous studies find a cumulative effect of different types of childhood adversities on increasing risk for serious adult mental and medical outcomes. This study uses the National Comorbidity Survey - Replication sample to investigate the cumulative impact of 8 childhood adversities on complex adult psychopathology as indexed by (a) number of lifetime diagnoses according to the DSM-IV; (b) number of 4 DSM-IV disorder categories (mood, anxiety, impulse control, and substance abuse disorders); and (c) coexistence of internalizing and externalizing disorders. 7 of the 8 childhood adversities were significantly associated with complex adult psychopathology. Individuals with 4 or more childhood adversities had an odds ratio of 7.3, 95% confidence interval [4.7, 11.7] for 4 disorder categories. Additive and multiplicative synergistic effects increasing adult psychopathology were found for specific pairwise combinations of childhood adversities. Synergistic patterns differed by gender suggesting that women are more impacted by sexual abuse and men by economic hardship. The absence of childhood adversities was protective, in that it significantly decreased an individual's risk for subsequent adult mental illness. The results support the clinical impression that increased childhood adversity is associated with more complex adult psychopathology.

Schaeffer, C. M., C. C. Swenson, et al. (2013). "Comprehensive treatment for co-occurring child maltreatment and parental substance abuse: Outcomes from a 24-month pilot study of the MST-Building Stronger Families program." *Child Abuse & Neglect* 37(8): 596.

This manuscript presents outcomes from a pilot study of Multisystemic Therapy-Building Stronger Families (MST-BSF), an integrated treatment model for the co-occurring problem of parental substance abuse and child maltreatment among families involved in the child welfare system. Participants were 25 mother-youth dyads who participated in MST-BSF and an additional 18 families with similar demographic and case characteristics who received Comprehensive Community Treatment (CCT). At post-treatment, mothers who received MST-BSF showed significant reductions in alcohol use, drug use, and depressive symptoms; they also significantly reduced their use of psychological aggression with the youth. Youth reported significantly fewer anxiety symptoms following MST-BSF treatment. Relative to families who received CCT, mothers who received MST-BSF were three times less likely to have another substantiated incident of maltreatment over a follow-up period of 24 months post-referral. The overall number of substantiated reabuse incidents in this time frame also was significantly lower among MST-BSF families, and youth who received MST-BSF spent significantly fewer days in out-of-home placements than did their CCT counterparts. These promising preliminary outcomes support the viability of a more rigorous (i.e., randomized) evaluation of the MST-BSF model.

Smith, N. B., C. D. Kouros, et al. (2013). "The role of trauma symptoms in nonsuicidal self-injury." *Trauma, Violence, and Abuse: A Review Journal*.

Reports of traumatic events by individuals who engage in nonsuicidal self-injury (NSSI) are common; yet, evidence for the relation between traumatic events and NSSI is inconclusive. This review explores the thesis that trauma symptoms, rather than the experience of a traumatic event per se, underlie this relation, specifically suggesting that trauma symptoms might serve as a mediator. The literature indicates that self-injury plays an important functional role in coping with trauma symptoms such that self-injury can provide an escape from intrusive thoughts and aversive emotional states, as well as end dissociation and periods of numbness through the generation of feelings. Additionally, trauma symptoms have been shown to mediate the relation between the occurrence of traumatic events and NSSI. Taken together, trauma symptoms may play an important role in the development and maintenance of NSSI. The review concludes with treatment implications and future directions for research.

Stolbach, B. C., R. Minshew, et al. (2013). "Complex trauma exposure and symptoms in urban traumatized children: a preliminary test of proposed criteria for developmental trauma disorder." *Journal of Traumatic Stress* 26(4): 483-491.

Recently, a new diagnostic construct, developmental trauma disorder (DTD), was proposed to describe the effects of chronic exposure to violence in combination with disruptions in caregiving systems. This study uses archival data to field test the consensus proposed diagnostic criteria for DTD in a sample of urban children (N = 214). Children with complex trauma histories as defined in the proposed DTD Criterion A were much more likely to meet the proposed DTD symptom criteria than children who did not meet the exposure criterion. This field trial of the proposed DTD criteria suggests that the proposed construct of DTD is useful for describing the symptoms induced by ongoing traumatic stressors and disrupted caregiving and that the proposed symptom criteria can differentiate children with histories of exposure to developmental trauma from other trauma-exposed children.