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1|Page  Presenters’ names are in bold. Discussants’ names are underlined. Moderators’ names are in bold and underlined. Guides to Keyword Abbreviations located on pages 2-3. (Primary keyword, Secondary Keywords, Population type) Presentation Level – Region
Guides to Information in Schedule

Keyword Type Descriptions

Primary Keywords
1. Assessment/Diagnosis (Assess Dx)
2. Biological/Medical (Bio Med)
3. Clinical/Intervention Research (Clin Res)
4. Clinical Practice (Practice)
5. Community-Based Programs (Commun)
6. Culture/Diversity (Cul Div)
7. Ethics (Ethics)
8. Global Issues (Global)
9. Journalism and Trauma (Journalism)
10. Multi-Media (Media)
11. Prevention/Early Intervention (Prevent)
12. Research Methodology (Res Meth)
13. Social Issues – Public Policy (Social)
14. Technology (Tech)
15. Training/Education/Dissemination (Train/Ed/Dis)
16. Vicarious Traumatization and Therapist Self-Care (Self-Care)

Secondary Keywords
• Accident/Injury (Acc/Inj)
• Acute/Single Trauma (Acute)
• Affective Processes/Interventions (Affect/Int)
• Aggression/Aggressive Behavior (Aggress)
• Aging/Lifecourse (Aging)
• Anxiety (Anx)
• Assessment/Diagnosis (Assess Dx)
• Biological/Medical (Bio Med)
• Child Physical Abuse/Maltreatment (CPA)
• Child Sexual Abuse (CSA)
• Chronic/Repeated Trauma (Chronic)
• Clinical/Intervention Research (Clin Res)
• Clinical Practice (Practice)
• Cognitive Processes/Interventions (Cog/Int)
• Community-Based Programs (Commun)
• Community/Social Processes/Interventions (Comm/Int)
• Community Violence (Comm/Vio)
• Complex Trauma (Complex)
• Culture/Diversity (Cul Div)
• Death/Bereavement (Death)
• Depression (Depr)
• Developmental Processes/Interventions (Dev/Int)
• Domestic Violence (DV)
• (Epi)Genetic Processes/Interventions (Gen/Int)
• Ethics (Ethics)
• Ethnicity (Ethnic)
• Family Relationship Processes/Interventions (Fam/Int)
• Gender and Trauma (Gender)
• Genetics/Epigenetics (Genetic)
• Global Issues (Global)
• Health Impact of Trauma (Health)
• Human Rights (Rights)
• Illness/Medical Conditions (Illness)
• Intergenerational Trauma (Intergen)
• Journalism and Trauma (Journalism)
• Multi-Media (Media)
• Natural Disaster (Nat/Dis)
• Neglect (Neglect)
• (Neuro)Biological Processes/Interventions (Bio/Int)
• Neuro Imaging (Neuro)
• Quality of Life (QoL)
• Prevention/Early Intervention (Prevent)
• Primary Care (Care)
• Psychodynamic Research (Psych)
• Public Health (Pub Health)
• Rape/Sexual assault (Rape)
• Refugee/Displacement Experiences (Refugee)
• Research Methodology (Res Meth)
• Sexual Orientation and Trauma (Orient)
• Sleep (Sleep)
• Social Issues – Public Policy (Social)
• Substance Use/Abuse (Sub/Abuse)
• Survivors/Descendants of Historical Trauma (Surv/Hist)
• Technical Disaster (Tech/Dis)
• Technology (Tech)
• Terrorism (Terror)
• Theory (Theory)
• Torture (Torture)
• Training/Education/Dissemination (Train/Ed/Dis)
• Traumatic Grief (Grief )
• Vicarious Traumatization and Therapist Self-Care (Self-Care)
• War – Civilians in War (Civil/War)
• War -Military/Peacekeepers/Veterans (Mil/Vets)
# Tracks

This year, every concurrent session is tagged as part of a track. This will enable you to find the sessions pertinent to you more easily. On the schedule you will see the track listed in the left column.

- Cognitive Processes/Interventions Track
- Affective Processes/Interventions Track
- Other Interventions Track
- Child Trauma Track
- Bio-Med/Genetics Track
- Public Health Track
- Military Track
- NeuroTrack
- Assessments and Diagnosis Track

# Guides to Information in Schedule

## Regions

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## Population Types

1. Child/Adolescent (Child/Adol)
2. Adult (Adult)
3. Older People/Aging (Older)
4. Both Adult and Child/Adolescent (Lifespan)
5. Mental-Health Professionals (Prof)
6. Other Professionals (Other)

## Presentation Level

All presentations designate the knowledge/skill level required of the participant as either:
- Introductory (I)
- Intermediate (M)
- Advanced (A)

These are used as a general guide only since attendees have very diverse educational and professional backgrounds.

- **Introductory (I):** Presentations that all participants (including undergraduate students) with any appropriate background will be able to fully comprehend and/or appreciate. Presentations will discuss concepts that are considered basic skills/knowledge for those working in the field.

- **Intermediate (M):** Presentations that participants may more fully comprehend/appreciate if they have at least some work experience in the topic to be discussed.

- **Advanced (A):** Presentations consisting of concepts requiring a high level of previous educational background, or work experience, in the particular area/topic to be discussed as well as being most geared for specialists and those in advanced stages of their career.
The experience of a traumatic event and resulting negative effects (e.g., daytime distress, sleep deprivation) are significant public health concerns in terms of lost worker productivity, interpersonal dysfunction, impact on physical and mental health, and related costs for treatment. Of the many effects of trauma, sleep disturbances may be among the most persistent, pervasive, and pernicious. Individuals who experience chronic nightmares and sleep problems tend to show smaller gains and persistent nightmares following PTSD treatment (Nappi, Drummond, & Hall, 2012). Given that nightmares and sleep disturbances are considered the hallmark of PTSD (Rosas, Ball, Sullivan, & Caroff, 1989) and their treatment-resistant nature (Davis & Wright, 2007), specific psychological treatments have been developed to target sleep disturbances and nightmares. Exposure, Relaxation, and Rescripting Therapy (ERRT) is a promising psychological intervention developed to target trauma-related nightmares and sleep disturbances. ERRT has exhibited strong support in reducing the frequency and intensity of nightmares, as well as improving overall sleep quality in both civilian and veteran samples. In addition, significant decreases in PTSD and depression symptoms have been reported following treatment (Davis et al., 2011; Davis & Wright, 2007; Long et al., 2011; Swanson, Favorite, Horin, & Arnedt, 2009). ERRT is currently an evidence-based treatment (Cranston, Davis, Rhudy, & Favorite, 2011). The Center for Deployment Psychology is in the process of adopting ERRT as a first-line treatment recognizing the importance of targeting nightmares and sleep disturbances in veterans. This, in addition to a growing body of literature about sleep treatments and techniques involved in ERRT.

This full day workshop will provide hands-on training in conducting Skills Training in Affective and Interpersonal Regulation (STAIR) with an option for trauma-focused work (i.e., development and exploration of trauma narratives). Core emotion regulation and interpersonal skills interventions will be identified and demonstrated and strategies for matching additional skills interventions to specific clients will be reviewed. The transition from skills training to trauma-focused work will be discussed and the structure and process of creating the individual’s trauma narratives as an “autobiography” will be demonstrated. Differences in the implementation of STAIR in group versus individual format will be fully reviewed. Case examples will be provided, with a special emphasis on male and female veterans and women who have experienced military sexual trauma (MST). Examples of implementation of the program using telemental health (videoconferencing) will also be included.
Both disrupted attachment and traumatic impact are components of complex trauma in children and adolescents. In this workshop, based on over 25 years of experience treating children and adolescents with complex trauma, attachment, and dissociative presentations, Niki Gomez-Perales, therapist and author of Attachment-Focused Trauma Treatment for Children and Adolescents: Phase-Oriented Strategies for Addressing Complex Trauma Disorders (Routledge, June 2015), explores the integration of attachment focused and phase oriented treatments in real world therapy situations. Current research and theory in neurobiology supports the integration between attachment theory and therapy geared towards the resolution of childhood trauma. Attachment focused work is widely used in treating young people who have experienced disrupted attachment relationships. Phase oriented psychotherapy is the gold standard for treating complex trauma and dissociation. Many, if not most, of the children and adolescents who have experienced chronic early trauma have also experienced significant disruption in their early attachment relationships. This workshop explores specific, neurologically integrative techniques in working together with caregivers and young clients to apply phase oriented trauma focused treatment within an attachment framework. Identifying and engaging attachment figures, building and strengthening attachment relationships, and utilising these relationships in supporting the stabilisation of children and adolescents experiencing complex trauma and dissociative disorders will be addressed as the first phase of the work. Neurologically integrative techniques for exploring traumatic experience and developing a coherent trauma narrative will be explored as the second phase. Exploration of the role of the attachment figure in maintaining an appropriate developmental trajectory, developing a non-trauma related identity and moving forward into the future will be explored in the discussion of phase three treatment. Issues specific to the treatment of pre-verbal trauma, dissociative presentations and dissociative disorders will be addressed in a detailed way that will allow for the application of this approach to the treatment of even the most complex and challenging traumatised young people.
Military personnel are at increased risk for trauma exposure and mental health problems such as posttraumatic stress disorder. Military organizations are developing and implementing resilience training interventions to minimize these risks. Early military interventions focused primarily on minimizing the sequelae of combat zone trauma exposure (e.g., BATTLEMIND); recent efforts focus on intervening earlier on in the military career, during recruit training, to prevent the mental health sequelae of both ongoing stressful training and future trauma exposure. Military recruit resilience interventions incorporate many of the stress management skills used in clinical trauma care setting (e.g., cognitive restructuring). And yet it is not clear how basic clinical science on effective treatment following trauma can inform military resilience interventions implemented before trauma exposure has taken place. It is also unclear what impact, if any, military resilience interventions may have on the effectiveness of trauma treatment, given that trauma-exposed military personnel may come in to care having had significant exposure to clinical skills. This PMI will bring together researchers, clinicians, and policymakers from military organizations in four nations (U.S., Canada, Australia, New Zealand) to discuss ways to better bridge the gap between basic clinical science and preventive resilience interventions in applied military settings. The U.S. will present results from a group randomized trial with Basic Combat Training Soldiers that assessed the impact of training in performance psychology on soldier skills and performance; Lessons learned were converted into training provided by Drill Sergeants and a follow-up study assessed actual implementation. Canada will present results from a series of quasi-experimental (N=1000) studies and population health surveys on factors associated with the retention and application of clinical skills such as cognitive restructuring in recruit resilience interventions. Australia will present results from the Australian Defence Force (ADF) resilience program (BattleSMART) and initial findings from the Longitudinal ADF Study Evaluating Resilience (LASER-Resilience); the latter study provides data from recruits at the end of initial training and every 12 months for the first three years of their career. New Zealand (NZ) will present findings from a small resilience study on recruits, completed in 2013, looking at psychological distress and components of GRIT and self-efficacy over the duration of a 16-week recruit training course. Discussion summarizing findings across the four nations will address implications for clinicians, researchers, and policy makers in military and other high risk occupations.

Military and civilian researchers, clinicians, and policymakers are developing and implementing treatments (EBTs) developed to treat the immediate and long-term impacts of complex trauma, and will describe cultural adaptations that optimize their effectiveness with socio-culturally marginalized youth. Complex trauma, often involving repeated exposure to multiple forms of childhood abuse, neighborhood violence, and peer assaults, frequently in the context of parental neglect and racial/cultural discrimination, is especially common among inner city or rural youth. Adolescents exposed to complex trauma typically experience some combination of anxiety, depression, posttraumatic stress, and a range of avoidance responses, including substance abuse, deliberate self-injury, dysfunctional sexual behavior, suicidality, dissociation, and impulsive aggression. In response to the specific needs of traumatized youth, especially those in socially-marginalized environments, two of the presenters of this PMI (Drs. Cheryl Lanktree and Mandy Habib) have each co-developed empirically-based interventions specifically targeted to the effects of complex trauma. These approaches, Integrative Treatment of Complex Trauma for Adolescents (ITCT-A) and Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS), have been developed with the support of the National Child Traumatic Stress Network. ITCT-A includes multi-modal interventions; assessment-based individualized treatment; relational/attachment processing within the therapeutic relationship; attention to safety issues; cognitive and emotional processing; and affect regulation and distress reduction. SPARCS is a 16-session group treatment.

**Pre-Meeting Institute (PMI)**
Wednesday, November 4
8:30 a.m. to 12:00 p.m.
Salon D

**PMI 05 Two Empirically-Based Models for the Treatment of Complex Trauma in Adolescents: Central Components and Cultural Adaptations**

(Practice, Chronic-Complex-Cul Div, Child/Adol, M, Industrialized)

Lanktree, Cheryl, PhD; Habib, Mandy, PsyD; Jimenez, Dante, MA; Briere, John, PhD; Labruna, Victor, PhD
1 University of Southern California, Torrance, California, USA
2 Adelphi University, Garden City, New York, USA
3 Aliviane, Inc., El Paso, Texas, USA
4 University of Southern California, Los Angeles, California, USA
designed to improve emotional, social, academic, and behavioral functioning of adolescents exposed to chronic interpersonal trauma. Both treatment models have been adapted and implemented with high-risk youth in various service systems (e.g., outpatient, residential treatment, and juvenile justice) and pay specific attention to cultural and social dynamics that may facilitate or interfere with trauma treatment. Presenters will outline these two approaches and describe cultural adaptations effective in working with traumatized youth. In addition, the director of outpatient services to largely Hispanic traumatized youth in El Paso, Texas, Dante Jiminez, M.A. LP-C, will discuss cultural adaptations of empirically-based adolescent trauma treatments in the context of environmental danger, poverty, and racial maltreatment. Dr. John Briere, who has developed a number of culturally-sensitive treatment approaches for traumatized adolescents and adults, including co-developing ITCT-A, will discuss the three presentations, relating them to the existing empirical literature on trauma effects and treatment.

Pre-Meeting Institute (PMI)
Wednesday, November 4
8:30 a.m. to 12:00 p.m.
Salon F-H

PMI 07 The Neurobiology of Traumatic Stress: Key Findings and Methodologies
(Bio Med, Genetic-Neuro, Adult, I, Industrialized)

Hayes, Jasmeet, PhD; Pineles, Suzanne, PhD; Logue, Mark, PhD; Spielberg, Jeffrey, PhD; Admon, Roe, PhD
1 VA Boston Health Care System/Boston University, Boston, Massachusetts, USA
2 National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA
3 VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA
4 McLean Hospital, Belmont, Massachusetts, USA

Recent advances in neuroimaging, biochemistry, and genetics research have paved the way toward a greater understanding of the neurobiology of trauma and stress. As new technologies and methods are discovered and applied to neurobiological work, it becomes increasingly important for individuals interested in treating and studying PTSD to learn the tools necessary to evaluate the latest research findings. The purpose of this pre-meeting institute is to provide attendees an introduction to contemporary biological approaches used to study PTSD, including methodological advantages and limitations inherent in these approaches. The target audience includes clinicians, researchers, and students with basic or intermediate knowledge of the biological aspects of traumatic stress. We will review the following topics:

(1) Structural and Functional Neuroimaging of PTSD: These talks will include an overview of how neuroimaging data are collected, processed, and analyzed, and the inherent limitations and advantages of neuroimaging methods. Discussion will include an introduction to advanced tools such as graph theory to image neural networks that play a crucial role in the development and maintenance of PTSD.

(2) Considering Hormones in PTSD Research: Gonadal hormones have downstream effects on several neurobiological processes implicated in PTSD. Because estrogen and progesterone fluctuate at different phases of the menstrual cycle, scientists often have to make difficult decisions about how to conduct neurobiological research in samples that include premenopausal women. Discussion will include the theoretical importance of this topic, as well as practical aspects of measuring menstrual cycle phase.

(3) Genetics of PTSD: A mix of genetic and environmental influences determines an individual’s risk of psychiatric disorders such as PTSD. Discussion in this section will include methods used to understand and characterize the genetic determinants of PTSD risk including twin studies, candidate gene studies, and genome-wide association studies. Gene expression and epigenetic studies and how they are providing insight into the biological underpinnings of PTSD will also be discussed.

(4) A Causal Model of Neural Abnormalities in PTSD: By regarding the traumatic encounter as a reference point for disease onset, neurobiological studies of PTSD have a unique opportunity to allocate PTSD neural abnormalities to either predisposing (pre-exposure) or acquired (post-exposure) factors. This section will tie in various neurobiological methods discussed previously in the PMI including neuroimaging, genetic, environmental, twins, and prospective studies to construct a uniformed causal model of neural abnormalities in PTSD.
Half Day Afternoon PMI

Pre-Meeting Institute (PMI)
Wednesday, November 4
1:30 p.m. to 5:00 p.m.
Salon D

PMI 08 Transition to What?: Utilizing Research-based Policies, Services, and Treatment to Increase Resilience and Reduce Poly-Victimization of Transition-Age Youth
(Practice, Chronic-Complex-Dev/Int-Social, Lifespan, M, Industrialized)

Habib, Mandy, PsyD1; Ford, Julian, PhD2; Kagan, Richard, PhD3; Blaustein, Margaret, PhD4
1Adelphi University, Garden City, New York, USA
2University of Connecticut Health Center, Farmington, Connecticut, USA
3Parsons Child and Family Center, Albany, New York, USA
4Trauma Center at Justice Resource Institute, Brookline, Massachusetts, USA

There is a striking gap between research on adolescent brain development and services and policies affecting transition-age youth. Adolescents with histories of multiple traumas, disrupted attachments and developmental delays are often pushed towards ‘independence’ and service termination in accordance with policies, practices, and societal norms that leave them with few resources once they transition out of child-serving systems such as juvenile detention facilities, residential programs, foster homes, and alternative schools. As a result, these youth become vulnerable to a myriad of additional adverse experiences including homelessness, trafficking, incarceration, unemployment, psychiatric hospitalization, and poly-victimization. To address the needs of this high-risk population, shifts in both policy and practice must begin with an understanding of normative and high risk adolescent development and needs, and incorporate knowledge drawn from research and practice regarding the ways in which trauma exposure can derail development and profoundly alter a child’s life trajectory. This pre-meeting institute will open with a review of research on adolescent brain development, and the relevant literature on the risks, outcomes, and available resources for transitioning youth. Drawing on this literature as well as the evidence-base regarding the impact of complex trauma, core targets for intervention will be identified. Specifically, focal areas of intervention will emphasize the development of key cognitive, neurobiological, relational, and environmental factors associated with resilience, such as mindfulness training, physiological and cognitive self-regulatory capacities, and familial and community connections. Four complex trauma treatment model developers will describe approaches to working with transition-age youth in diverse settings, from single-system approaches to state-wide initiatives. Presenters will highlight techniques and methods drawn from Real Life Heroes: ARC (Attachment, Regulation, & Competency), SPARCS (Structured Psychotherapy for Adolescents Responding to Chronic Stress), and Trauma Affect Regulation: Guide for Education & Therapy (TARGET) that have been used to promote self-regulatory skills, support adaptive attachments, and facilitate the creation of meaning, purpose, and hope. Participants will be engaged in the content through experiential application of research and treatment tools. Following the group activity, integrative discussion will be led by a model developer (Ford) with substantial experience with state-wide initiatives affecting transition-age youth. The discussant will conclude with a synthesis of the content, including recommendations for state/federal policies, service system design and practice implications.

Pre-Meeting Institute (PMI)
Wednesday, November 4
1:30 p.m. to 5:00 p.m.
Salon E

PMI 09 Sharpening Socratic Skills
(Practice, Cog/Int-Death, Adult, M, N/A)

Resick, Patricia, PhD1; Dondanville, Katherine, PsyD2
1Duke University Medical Center, Durham, North Carolina, USA
2University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA

This half-day institute is designed for practitioners looking to sharpen their Socratic Questioning skills. The Socratic method is used in cognitive therapy to increase patients’ awareness of maladaptive thinking. Through Socratic dialogue, patients learn to recognize, examine and change thoughts that are based on inaccurate information or erroneous assumptions. Sharpening Socratic Questioning skills can enhance a practitioner’s effectiveness across multiple diagnoses and treatment modalities. Institute leaders’ expertise is in trauma-related cognitions and Cognitive Processing Therapy. The Institute will primarily focus on trauma-related cognitions and PTSD though it will incorporate methods for questioning cognitions related to general anxiety, depression, grief and loss, and moral injury. At its best, good Socratic questioning stimulates a patient’s curiosity about the assumptions core to their emotional difficulties creating a warm collaborative environment for learning and change. At its worst, poor Socratic dialogue can be experienced as an interrogation or a condescending lecture with fruitless gains and damage to the therapeutic relationship. This institute is designed for practitioners who have experience providing cognitive interventions. Institute participants will have an opportunity to guide the material based on their personal interests and clinical consultation needs. Though there will be some didactic materials presented, most of this session will be “hands-on.” The Institute leaders will model techniques, share personal case experiences, and utilize brief video clips to demonstrate different kinds of Socratic Questioning. Most importantly, Institute participants will be asked to take part in partially scripted and unscripted role
plays where they will practice and evaluate their use of the skills. The Institute will present different types of Socratic questions for a wide range of therapeutic goals over the course of treatment. Methods for working with patients who stay stuck will be discussed.

Pre-Meeting Institute (PMI)
Wednesday, November 4
1:30 p.m. to 5:00 p.m.
Salon F-H

PMI 10 An Update on Categorical Data Analysis for Trauma Researchers: An Epidemiologic Approach
(Res Meth, Civil/War, N/A, M, N/A)

Sonis, Jeffrey, MD, MPH
University of North Carolina at Chapel-Hill, Chapel Hill, North Carolina, USA

Most trauma researchers receive strong training in the statistical analysis of data with continuous outcomes. However, the statistical techniques used in the analysis of continuous data are not appropriate for the analysis of outcomes with discrete categories, such as diagnosis (e.g., PTSD), symptom cluster (e.g. avoidance), remission, recurrence, or death. This pre-meeting institute will be an update on statistical techniques for analysis of data with discrete outcomes, from an epidemiologic perspective, for researchers whose primary training or expertise is in continuous data. The first hour of the institute will be devoted to the analysis of contingency tables. We will start with the analysis of the 2x2 table (i.e., dichotomous independent and dependent variables) and compare the use and interpretation of key measures of association and impact: risk ratio, odds ratio, risk difference, attributable risk and number needed to treat/harm. We will then explore the analysis of sets of 2x2 tables, emphasizing appropriate techniques for assessment of confounding and interaction (effect modification). The remainder of the institute will be devoted to regression techniques for categorical outcomes, including logistic regression for binary, ordinal and nominal outcomes and newer techniques for obtaining estimates of risk ratios when odds ratios are not good approximations of risk ratios. Generalized estimating equations, a useful approach for analysis of population-averaged longitudinal categorical outcomes will be introduced. All of the statistical issues covered in this pre-meeting institute will be explained with the use of a dataset involving trauma. Throughout the pre-meeting institute, we will emphasize the value and importance of estimating effect magnitude and precision, rather than calculating p values and statistical significance. The material in the first hour will be presented at an introductory level. The material in the section on regression will be presented at an intermediate statistical level; familiarity with linear regression will be assumed.
Keynote Panel
Wednesday, November 4
6:30 p.m. to 8:00 p.m.
Acadia

Katrina’s Children 10 Years Later: Crisis, Trauma, Recovery, Resilience
(Commun, Commun-Comm/Int-Complex-Nat/Dis, Child/Adol, I, Industrialized)

Osofsky, Joy, PhD\textsuperscript{1}; Osofsky, Howard, MD, PhD\textsuperscript{1}; Lawrason, Beverly, Assistant Superintendent\textsuperscript{2}; Speier, Anthony, PhD\textsuperscript{3}

\textsuperscript{1}LSU Health Sciences Center, New Orleans, Louisiana, USA
\textsuperscript{2}St. Bernard Parish Public Schools, Chalmette, Louisiana, USA
\textsuperscript{3}Louisiana State University Health Sciences Center, New Orleans, Louisiana, USA

The majority of children of all ages in parishes highly impacted by Hurricane Katrina experienced major initial and longer term traumatic stress. Most had major damage or loss of home with one or more displacements, common during the first year. Over a third of children were separated from primary caregivers after the loss of their home. Almost 25\% had relatives or friends injured; 14\% experienced death of a relative or friend. In addition to the immediate trauma, many had disruptions in their lives for many years. What is it like for children and adolescents 10 years later? The opening session will take a careful look a decade later at the experiences of children and adolescents in St. Bernard Parish. St. Bernard Parish, adjacent to New Orleans, suffered major devastation, with a subsequent oil explosion resulting in a question about whether the parish could or would be allowed to rebuild. The recovery, local community, state, and government responses, the reopening of school, and the role of schools in building resilience in the devastated community will be the focus of the session. Preparation and response efforts, together with implications for the resilience after major disasters will be emphasized.
Thursday, November 5

Keynote Address
Thursday, November 5
8:30 a.m. to 9:45 a.m.
Acadia

PTSD: From Neurobiology to Treatment

Krystal, John, MD
Yale School of Medicine, New Haven, Connecticut, USA

The effective treatment of PTSD is limited by the small number of validated pharmacotherapy options. The central hypothesis of this presentation is that new medication treatments will emerge from a deeper understanding of the neurobiology of this disorder. To illustrate ways that the neurobiology of PTSD is informing the development of new medication strategies, this presentation will highlight major advances in the neurobiology of PTSD and link these insights to novel therapeutic strategies. In doing so, this presentation will take a historical perspective and highlight advances from the 25 years of research within the Clinical Neuroscience Division of the National Center for PTSD of the U.S. Department of Veterans Affairs. It will begin by describing disturbances in brain noradrenaline signaling that contribute to anxiety-like symptoms of PTSD and link these alterations to the effectiveness of prazosin and other medications. It will highlight the interplay of noradrenaline signaling and Neuropeptide Y in resilience and PTSD, providing evidence that NPY might be a future target for pharmacotherapies. It will then describe alterations in serotonin (5HT) signaling in PTSD and link these abnormalities to the effectiveness of antidepressants, serotonin receptor antagonists, and second generation antipsychotic medications. In thinking about the future of PTSD treatment, this presentation will discuss the role of glutamate systems in brain neuroplasticity, highlighting opportunities and challenges in developing glutamatergic medications to promote fear extinction and enhance resilience. This presentation will then describe the path that led to the discovery of the rapid-acting antidepressant effects of the NMDA glutamate receptor antagonist, ketamine, and its application to PTSD treatment.
Pritha, PhD
Liddell, Belinda, PhD

Differential Reappraisal Neural Interventions for Refugees and Post-Conflict Populations: From Experimental Research to Treatment Interventions
(Global, Cog/Int-Refugee-Torture-Civil/War, Lifespan, M, Global)

Nickerson, Angela, PhD; Bryant, Richard, PhD
University of New South Wales, Sydney, NSW, Australia

Refugee and post-conflict mental health represents a critical public health concern internationally. Accordingly, research has documented elevated rates of psychological disorders among refugees and individuals living in post-conflict contexts. In this symposium, we will present four studies that advance knowledge regarding mechanisms underlying PTSD, and the treatment of this disorder in refugee and post-conflict populations. The first study is a neuroimaging investigation of the impact of torture exposure on neural correlates of emotion regulation. The second presentation will outline an experimental study examining the relative impact of cognitive reappraisal and emotional suppression in reducing trauma-related distress in resettled refugees. The third study presents results from a randomized treatment trial investigating the efficacy of cognitive behavior therapy in treating PTSD symptoms in childhood survivors of disaster and conflict. The final study presents a meta-analysis of psychological interventions for PTSD in post-conflict settings. Taken together, these studies highlight the importance of applying findings from experimental research and clinical trials to develop more effective psychological interventions for refugees and post-conflict populations.

Neural Correlates of Cognitive Reappraisal in Traumatized Refugees: Differential Modulatory Effects of Torture Exposure and PTSD Symptom Severity

Liddell, Belinda, PhD; Cheung, Jessica, PhD, Cpsych1; Nickerson, Angela, PhD; Felmingham, Kim, PhD2; Das, Pritha, PhD3; Malhi, Gin, PhD4; Bryant, Richard, PhD4

1University of New South Wales, Sydney, NSW, Australia
2University of Tasmania, Hobart, TAS, Australia
3University of Sydney, Sydney, NSW, Australia
4University of Sydney, St Leonards, NSW, Australia

Emotion dysregulation is implicated as a core mechanism underlying psychopathological profiles of traumatized refugees and torture survivors. While the neural basis of emotion regulation deficits in PTSD is well-evidenced, little is known about how these networks are functionally impaired in traumatized refugees. In this study, 70 refugees (50% with PTSD; 40% with torture histories) were trained in applying cognitive reappraisal strategies to regulate their emotional responses to highly arousing negative cues. They then completed a “Think” (applied cognitive reappraisal strategies) vs “Watch” (natural viewing condition) task whilst undergoing fMRI scanning. Region of interest analysis revealed a pattern of emotion “over-modulation” during the watch condition amongst torture survivors. This was reflected in elevated prefrontal and anterior cingulate engagement associated with the degree of torture severity. When instructed to think, this pattern did not shift indicating poor engagement in reappraisal amongst torture survivors. Non-torture survivors however, displayed evidence of improved regulation of amygdala-driven responses during reappraisal, associated with decreases in subjective negativity ratings. The findings have significant implications for understanding the mechanisms of effectively treating PTSD in traumatized refugees and torture survivors.

Emotion Regulation in Traumatized Refugees: An Experimental Investigation
(Clin Res, Cog/Int-Refugee-Torture, Adult, M, Global)

Nickerson, Angela, PhD1; Garber, Ben, MA1; Litz, Brett, PhD2; Hofmann, Stefan, PhD2; Asnaani, Anu, PhD2; Liddell, Belinda, PhD3; Bryant, Richard, PhD1

1University of New South Wales, Sydney, New South Wales, Australia
2VA Boston Health Care System/Boston University, Boston, Massachusetts, USA
3Boston University, Boston, Massachusetts, USA
4University of Pennsylvania School of Medicine, Pennsylvania, Pennsylvania, USA

Emotion dysregulation is an important psychological process that contributes to psychological symptoms in trauma survivors. While research indicates that refugees experience elevated rates of psychological disorders, few studies have investigated emotion dysregulation following refugee trauma and torture. This study employed an experimental paradigm to examine the relative efficacy of cognitive reappraisal and emotional suppression in reducing distress when viewing trauma-related images in 64 refugees with varying levels of PTSD. Participants were randomly assigned to receive instructions in cognitive reappraisal or emotional suppression, and then viewed a number of trauma-related images. Moderated regression analyses revealed significant interactions between trait suppression, PTSD symptoms and experimental condition. Simple slopes analyses indicated that, for refugees high in PTSD who were also high in trait suppression, the use of cognitive reappraisal increased feelings of fear, tension and anger in response to trauma-related images. A similar pattern of results was evidenced for heart rate data. Findings from this study challenge a “one size fits all” approach to emotion regulation, and highlight the importance of considering trait use of emotion regulation strategies in traumatized refugees. Implications for theoretical models and interventions will be discussed.
Treating Childhood Posttraumatic Stress in Following Disaster and Conflict in Aceh
(Clin Res, Cul Div Nat-Dis-Pub Health, Child/Adol, M, E Asia & Pac)

Dawson, Katie, PhD; Bryant, Richard, PhD
University of New South Wales, Sydney, New South Wales, Australia

Although there is considerable understanding of the mechanisms and treatment methods for people suffering from PTSD in western settings, there is little known about the extent to which this knowledge is applicable to people living in non-western communities. Relatedly there is much debate regarding the need to deliver trauma-focused treatments to such populations, especially those at risk of ongoing trauma exposure. This study reports the results of a proof-of-concept treatment trial with children affected by the 2004 tsunami in Aceh, Indonesia, which occurred after decades of civil conflict. Children (N = 72) were randomly allocated to a culturally adapted version of trauma-focused cognitive behavior therapy (CBT) or generic problem-solving (PS). Each condition received six individual sessions including one parent session. Children were assessed prior to treatment, and by blind assessment after treatment and at 6 months follow-up. HLM analyses indicated both conditions displayed marked reductions in PTSD, depression, and anger from pretreatment to follow-up. Interestingly, there were no differences between conditions. These findings point to the utility of psychosocial interventions, however question the relative superiority of trauma-focused interventions, especially in the context of ongoing adversity.

Symposium
Thursday, November 5
10:00 a.m. to 11:15 a.m.
Galerie 3 – Affective Processes/Interventions Track

From Experimental and Clinical Studies to the Development of Promising Early Interventions

Lommen, Miriam, PhD
Oxford University, Oxford, United Kingdom

The way in which a traumatic event is encoded in memory helps us understand why some people go on to develop PTSD symptoms while others do not. In this symposium we will focus on what factors influence encoding, and how these can be modified to prevent the development of PTSD symptoms. Dr. Rafaële Huntjens will present data on the effects of emotional arousal on memory encoding, focusing on the binding of temporal and spatial elements of memory. Prof. Kim Felmingham will present data from a prospective study looking at the predictive value of pre-trauma attentional bias on the development of PTSD in a military sample. Marcella Woud will talk about the influence of dysfunctional appraisals on PTSD symptoms and will discuss the potential of a cognitive bias modification task to alter these appraisals. Dr. Jennifer Wild will present data on the effectiveness of two different interventions, exposure and updating, on the development of intrusions after analogue trauma. This symposium will include a combination of experimental and clinical studies that inform us about the roles of emotional arousal and information processing on trauma memory and PTSD symptomatology. Two presentations will reveal how insight in trauma memory can be translated into early interventions for PTSD and discuss the potential of these innovative interventions.

Meta-Analysis of Psychological Treatments for PTSD and Depression in Low-and Middle-Income Countries
(Clin Res, Clin Res-Global-Refugee-Civil/War, Adult, M, Global)

Morina, Nexhmedin, PhD1 ; Malek, Mina, MA1 ; Nickerson, Angela, PhD2 ; Bryant, Richard, PhD2
1University of Amsterdam, Amsterdam, Noord-Holland, Netherlands
2University of New South Wales, Sydney, New South Wales, Australia

The majority of survivors of war live in low-and middle-income countries. In recent decades, several trials have evaluated the efficacy of psychological interventions for war-related PTSD and depression in these countries. We conducted a systematic review and meta-analysis of clinical trials that have assessed the efficacy of psychological treatments for adults with PTSD and/or depression in low-and middle-income countries. Following a systematic search in Medline, PsycINFO, and Pilots, we included 22 trials. Primary analyses were conducted with 12 randomized controlled trials (11 on PTSD and seven on depression). The aggregated between-group effect size comparing active treatments versus waitlist at post-treatment were large for both PTSD (g = 1.12) and depression (g = 1.17). Treatment gains remained stable at follow-up. Our findings indicate that psychological treatments are effective in reducing war-related PTSD and depression symptoms in low- and middle-income countries. Limitations of current literature and programs that can be both effective and sustainable in low-and middle-income countries will be discussed.

Binding Temporal Context in Memory: Impact of Emotional Arousal as a Function of State Anxiety and State Dissociation
(Clin Res, Cog/Int, Adult, M, N/A)

Huntjens, Rafaële, PhD
University of Groningen, Groningen, Netherlands

Encoding of stressful experiences plays an important role in the development of posttraumatic stress disorder. A crucial aspect of memory encoding is binding: The “gluing” of the temporal and spatial elements of an episode into a cohesive unit. This study investigated the effect of emotional arousal on temporal binding and examined whether temporal binding varied as a function of state anxiety and/or state dissociation. Participants saw picture sequences that varied in arousal and valence. Following each sequence, participants were presented with all the pictures.
simultaneously and had to sort the pictures in the original order. Temporal context binding was indexed by sorting accuracy. Binding was generally lower for high than low arousing pictures. Reduced binding of arousing material was specifically pronounced in participants with high state anxiety, whereas it appeared independent of state dissociation. These findings point to the relevance of impaired temporal binding as a component of aberrant memory encoding in stressful situations.

**Attentional Avoidance of Threat Predicts Post-Deployment PTSD Symptoms: An Event-Related Potential Study**


Felmingham, Kim, PhD¹; Palmer, Matt, BA (Hons), PhD²; Zuj, Daniel, PhD Candidate³; Lawrence-Wood, Ellie, PhD²; Van_Hoof, Miranda, BA (Hons), PhD³; Bryant, Richard, PhD³; McFarlane, Alexander, MD³

¹University of Tasmania, Hobart, Tasmania, Australia
²Centre for Traumatic Stress Studies, Adelaide, South Australia, Australia
³University of Adelaide, Adelaide, South Australia, Australia
⁴University of New South Wales, Sydney, New South Wales, Australia

Longitudinal research has identified key risk factors for developing PTSD following combat. Whilst some studies have reported that attentional bias towards threat is a risk factor for PTSD, recent studies suggest that attention avoidance from threat predicts post-deployment PTSD symptoms. Previous studies have examined attentional bias using reaction-time dot-probe tasks which cannot examine covert processes involved in attentional bias. This study examined attentional biases towards threat by recording event-related potentials (N100 reflecting automatic attention, and later conscious P300) to angry (-neutral) facial expressions in a passive viewing task. 90 defence personnel were tested on this paradigm immediately prior to deployment, as part of the Middle East Area of Operations Health Study (MEAO) study. Their PTSD symptoms were recorded four months following deployment using the PTSD Checklist. A multiple regression analysis revealed that pre-deployment level of PTSD symptoms and automatic attentional biases away from threat (N100) significantly predicted PTSD symptoms post-deployment, whilst level of war exposure, mild TBI status at pre-deployment, months of deployment, and conscious attentional biases (P300) were not significant predictors. These findings highlight the role of automatic attentional avoidance of threat as a risk factor for subsequent PTSD.

**Updating versus Exposure to Prevent Consolidation of Conditioned Fear**

(Prevent, Clin Res-Cog/Int-Prevent, Adult, M, Industrialized)

Wild, Jennifer, DPsych(Clin)¹; Pile, Victoria, DPsych(Clin)²; Barnhofer, Thorsten, PhD³

¹Oxford University, Oxford, Oxfordshire, United Kingdom
²King’s College London, London, Middlesex, United Kingdom
³Freie Universitaet, Berlin, Brandenburg, Germany

Targeting the consolidation of fear memories may offer a promising method for preventing the development of re-experiencing symptoms. Given that the most effective treatments for PTSD are verbally-based, it is surprising that no research has used verbal techniques to alter memories during the consolidation window. We investigated the degree to which individual differences in fear conditioning predict the development of PTSD symptoms. We compared the preventative effects of clinically informed psychological techniques administered during the consolidation window: exposure to the trauma memory and updating the meaning of the trauma. 115 healthy participants underwent a fear conditioning paradigm in which traumatic film stimuli (unconditioned stimuli) were paired with neutral stimuli (conditioned stimuli). Participants were randomly allocated to an updating, exposure or control group to compare effects on the conditioned fear response and PTSD symptoms. Results showed that stronger conditioned responses at acquisition significantly predicted the development of PTSD symptoms. The updating group, who verbally devalued the unconditioned stimulus within the consolidation window, experienced significantly lower levels of PTSD symptoms during follow-up than the other groups. These findings have implications for identifying those at risk and for developing preventative interventions.

**Global Health Issues Paper Session**

Thursday, November 5
10:00 a.m. to 11:15 a.m.
Galerie 4 – Public Health Track

**West Africa Ebola Outbreak: The Trauma Signature**

(Global, Comm/Int, Death, Illness, Pub Health, N/A, I, W & C Africa)

Shultz, James¹; Baingana, Florence²; Espinell, Zelde³; Mazurik, Laurie³; Helpman, Liat⁴; Neria, Yuval⁴

¹University of Miami Miller School of Medicine, Miami, Florida, USA
²Makerere University, Kampala, Uganda
³Sunny brook Health Sciences Centre, Toronto, Ontario, Canada
⁴Columbia University Department of Psychiatry and New York State, New York, New York, USA
⁵Columbia University and New York State Psychiatric Institute, New York, New York, USA

Introduction: The West Africa Ebola virus disease (EVD) pandemic dwarfed all previous outbreaks, surging through urban populations in Guinea, Sierra Leone, and Liberia, generating more than 24,000 cases (10,000 deaths) in the first 16 months. WHO vividly described how fear behaviors propelled virus transmission. Methods: Trauma signature (TSIG) analysis is an evidence-based method that explores the nexus of disaster exposures and psychological consequences to provide actionable guidance for effective mental health and psychosocial support (MHPSS), tailored...
An Exploration of Severe and Prolonged Trauma among LGBT Refugees/Asylees: Implications for Providers and Policymakers

Alessi, Edward 1, Kahn, Sarilee 2
1Rutgers University, Newark, New Jersey, USA
2McGill University, Montreal, Quebec, Canada

The number of lesbian, gay, bisexual, and transgender refugee/asylum seekers in the U.S. and Canada is growing rapidly (ORAM, 2012); however, scholars have only just begun to explore the effects of victimization on the mental health of this vulnerable population (Shildlof & Aloha, 2013). This study used qualitative methods to explore lifetime victimization experiences and self-reported mental health problems among 26 individuals granted refugee/asylee status in the U.S. (n=16) or Canada (n=10) on the basis of sexual orientation or gender identity. Participants (gay=20; lesbian=2; transgender=4) originated from Africa, Eastern Europe, the Caribbean, Latin America, and the Middle East and ranged in age from 21-49. We used the phenomenological approach (Moustakas, 1994) to analyze in-depth interviews lasting 75 to 120 minutes. Analysis revealed two themes: struggling to survive and nowhere to turn. Participants experienced severe and prolonged verbal, physical, and sexual abuse by family/community members, police, and state officials in their home country. Symptoms of depression, anxiety, and PTSD complicated adjustment to the host country. Moreover, participants lacked many of the protective factors shown to mitigate the effects of trauma in the general refugee population (Birman & Tran, 2008). We discuss implications for practice and policy with this population.

Prevalence of Posttraumatic Stress Symptom Clusters, Interpersonal Trauma, and their Relationship to Drug and Alcohol Use Problems among an International Sample of Latino Immigrants

Ramos, Zorangeli 1, Fortuna, Lisa 2, Alegria, Margarita 2
1Cambridge Health Alliance | Harvard Medical School, Cambridge, Massachusetts, USA
2Cambridge Health Alliance | Harvard Medical School, Somerville, Massachusetts, USA

Purpose: We identify the prevalence and correlates of PTSD symptom clusters, interpersonal trauma, and their association to alcohol and drug use problems in a sample (n = 567) of an epidemiological study of Latino immigrants in the United States and Spain. Methods: We ran multiple logistic models to predict odds of being positive for alcohol and drug problem using PTSD symptom clusters, sociodemographics, screening measures (PCL-5, BTQ, AUDIT, DAST), and trauma type. Prevalence of PTSD symptoms varied by site (54% in Boston, 48% in Madrid and, 44% in Barcelona). Screening positive for clinical and substance measures was significantly correlated to screening positive on the PCL. Individuals meeting criterion C of PTSD (numbing and avoidance) had increased odds of alcohol misuse, while those meeting criterion B (re-experiencing) had increased odds of drug misuse (p<0.001). We observed gender differences for females with criterion C. Interpersonal trauma was associated with increased odds of both alcohol and drug problems. Conclusions: The prevalence of PTSD symptoms in this international sample is relatively high. Certain PTSD clusters may differentially pose a risk for alcohol vs. drug misuse. This study highlights the need for dual path treatment among immigrant Latinos with interpersonal trauma exposure, and male gender.

Psychological Costs of the Benefits of Transitional Justice

Neugebauer, Richard, PhD, MPH 1; Pozen, Joanna, JD 2; Fodor, Kinga, MA, PhD Student 1; Sezibera, Vincent, PhD 3; Ntaganira, Joseph, MD, PhD 4
1Columbia University and New York State Psychiatric Institute, New York, New York, USA
2Columbia University, New York, New York, USA
3Semmelweis University, Budapest, Pest, Hungary
4National University Of Rwanda, Butare, Southern Province, Rwanda

Transitional justice efforts, the judicial or non-judicial measures established by many countries to deal with a legacy of massive human rights violations, e.g., the Truth and Reconciliation Commission in South Africa, represent genuine and legitimate efforts to help communities come to terms with a deeply disturbing past. However, these efforts involve public testimonial evidence of brutal crimes, thereby raising a question as to possible psychological harm for witnesses and victims. We examine this question in the context of the local trials in Rwanda, gacaca courts, of persons alleged to have participated in the 1994 genocide. In the context of a cluster random survey of 500 Rwandans in 2011, we introduced a question as to whether the individual had learned of a death of a relative for the first time at gacaca. Approximately 25% of individuals indicated that they had so learned. Of these individuals, 38% met criteria for probable PTSD, whereas among the group that did not hear of additional losses, only 16.6% met such criteria. The contribution of transitional justice to long term successful co-existence and reconciliation may be substantial, but its potential for causing psychological harm,
Parents' own experiences of trauma impact their parenting, as well as their response to trauma experiences in their children. The intergenerational transmission of trauma can affect parents' attachment to their children beginning as early as prenatally (Schwerdtfeger & Goff, 2007). Parental posttraumatic stress is a risk factor for children's exposure to trauma and may be associated with maladaptive parenting practices (Leen-Felder et al., 2013). Parents' posttraumatic stress symptoms have been indicated as a potential risk factor for the development of PTSD symptoms in children, among a multitude of other psychological problems (Leen-Felder et al., 2013; Yehuda et al., 2001). Thus treatment for children with posttraumatic stress should both assess for and address parental posttraumatic stress. Leading evidence-based treatments for childhood traumatic stress involve parents and caregivers in integral ways. This presentation will illustrate how three different evidence-based practices were utilized to treat families with multigenerational trauma histories through case examples of trauma treatment utilizing Trauma-Focused Cognitive Behavioral Therapy, Child-Parent Psychotherapy, and Parent-Child Interaction Therapy. Culturally sensitive responses to parents' own exposure to violence, abuse, and other traumas, in the context of child and family therapy, will be discussed.

Workshop Presentation
Thursday, November 5
10:00 a.m. to 11:15 a.m.
Galerie 6 – Child Trauma Track

Lessons Learned From an Interdisciplinary Exploration of Trauma Informed Approaches to the Commercial Sexual Exploitation of Children
(Commun, CSA-Chronic-Comm/Vic-Rape, Child/Adol, M, N/A)

Halladay Goldman, Jane, PhD, MSW1; Grady, Jennifer, MSW2; Griffin, DeAnna, MA1; Kinnish, Kelly, PhD2; Branson, Christopher, PhD4
1National Center for Child Traumatic Stress, Los Angeles, California, USA
2National Center for Child Traumatic Stress, Durham, North Carolina, USA
3Georgia Center for Child Advocacy, Atlanta, Georgia, USA
4Mount Sinai School of Medicine, Dept of Psychiatry, New York, New York, USA

Victims of human trafficking are found within urban, suburban, and rural areas alike. The effects are devastating on the health, mental health, and development of vulnerable young people across the United States and globally. We are increasingly finding that many of the youth we serve have been victims of trafficking, yet we are ill-equipped to meet the needs of this population. The multi-types and occurrences of trauma these youth have experienced from an early age increase the risk for substance use/abuse, homelessness, juvenile justice involvement, and physical and mental health symptoms. Therefore, working with trafficked youth requires a multidisciplinary approach to service provision. Members of the NCTSN Trafficking Task Force will provide an overview of the problem from the perspective of different child-serving systems; and describe how they facilitated a roundtable with survivors, clinicians, intervention developers, medical providers, law enforcement, juvenile justice, and child welfare individuals who explored topics and strategies—related to trauma and trafficking—including screening, engagement, treatment, healthcare response, and judicial response. Participants will have opportunity to reflect on their own practice and the needs of their organizations, identify partners as resources for information, consultation, and training through interactive discussions.
Invited Symposium
Thursday, November 5
10:00 a.m. to 11:15 a.m.
Acadia – Affective Processes/Interventions Track

Family Perspectives on PTSD
(Clin Res, Affect/Int-CPA-Clinical Practice-Dev/Int, Adult, M, Industrialized)

Lanius, Ruth, MD, PhD
University of Western Ontario, London, Ontario, Canada

PTSD has been associated with impaired social cognition and interpersonal relationships, including parenting difficulties. This symposium will describe deficits in theory of mind, affect recognition, and empathy in individuals with PTSD and discuss their relevance to altered social functioning and the intergenerational transmission of trauma. Furthermore, the efficacy of a manualized cognitive behavioral conjoint treatment for PTSD patients and their partners on PTSD symptoms, relationship functioning, and the intimate partner’s psychological health will be illustrated. Finally, the biological mechanisms that may mediate the intergenerational transmission of trauma and implications for early interventions strategies for mothers at risk will be outlined.

Cognitive-Behavioral Conjoint Therapy for PTSD: Harnessing the Power of Interpersonal Relationships
(Clin Res, Clin Res-Clinical Practice, Adult, M, Industrialized)

Monson, Candice, PhD, Cpsych
Ryerson University, Toronto, Ontario, Canada

Cognitive-Behavioral Conjoint Therapy for PTSD (CBCT; Monson & Fredman, 2012) is a manualized psychotherapy with the simultaneous goals of improving PTSD and enhancing intimate relationships. Its efficacy has been established with a number of case studies, as well as four uncontrolled and controlled trials. This presentation will provide a brief overview of data supporting its efficacy in improving PTSD, relationship functioning, and intimate partners’ psychological well-being. In addition, an overview of the phases of treatment will be presented. Alternatives in service delivery (e.g., multi-dyad groups, massed dosing, dual PTSD couples, non-intimate dyads, tele-health), as well as methods to potentially enhance its efficacy (e.g., MDMA-augmentation) will be discussed. Challenges to implementation will also be shared.

What Gets Transmitted and How?
Biological Mechanisms Underlying the Intergenerational Transmission of Risk
(Social, CPA-Bio/Int-Surv/Hist-Intergen, Lifespan, M, Industrialized)

Gonzalez, Andrea, PhD
McMaster University, Hamilton, Ontario, Canada

Childhood maltreatment is associated with increased risk of psychopathology, cognitive dysfunction and impaired relationships, including parenting difficulties. Recently studies have shown that the consequences of childhood maltreatment may extend to the next generation. This presentation will provide an overview of data examining biological and neuropsychological mechanisms linking maternal reports of early life adversity to current parenting and offspring outcomes. A discussion regarding implications for interventions with at risk mothers will follow.

Structured Approach Therapy for Combat-Related PTSD and Intimate Relationship Problems: Clinical Findings
(Clin Res, Clin Res-Fam-Int-Mil/Vets, Adult, M, Industrialized)

Sautter, Frederic, PhD†; Glynn, Shirley, PhD‡; Cretu, Julia, PsyD§; Senturk, Damla, PhD¶
1 Tulane University Health Sciences Center, New Orleans, Louisiana, USA
2 VA Office of Mental Health Services and VA Greater Los Angeles Healthcare System, Los Angeles, California, USA
3 Southeast Louisiana Veterans Health Care System, & Tulane Psychiatry, New Orleans, Louisiana, USA
4 UCLA, Los Angeles, California, USA

A 12-session couple-based PTSD treatment, Structured Approach Therapy (SAT) has been developed to address the impact of combat-related PTSD on Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans. This presentation presents treatment outcome data measuring PTSD, attachment processes, and relationship adjustment from a randomized clinical trial comparing SAT with a 12-session PTSD Family Education (PFE) intervention. Data were collected from 57 OEF/OIF veterans meeting DSM-IV-TR criteria for PTSD and their cohabitating partners. Assessments were conducted before and after treatments, and at a three-month follow-up, measuring Veteran PTSD, veteran and partner relationship adjustment, attachment anxiety, and attachment avoidance. Findings from an intent-to-treat analysis show that OEF/OIF veterans completing SAT showed significantly greater reductions in self- (p<.0006) and clinician-rated (p<.0001) PTSD severity, relationship adjustment problems (p<.007), and attachment avoidance (p<.009) than veterans receiving PFE. Partners participating in SAT showed greater reductions in attachment anxiety (p<.008) than partners participating in PFE. The implications of these findings for clinical practice and our understanding of the effects of PTSD on relationship functioning will be clarified for the audience.
Social Cognition in Individuals with PTSD: Alterations in Theory of Mind, Affect Recognition and Empathy
(Assess Dx, Affect/Int-Assess Dx-Chronic-Dev/Int, Adult, M, Industrialized)

McKinnon, Margaret, PhD
McMaster University, Hamilton, Ontario, Canada

To date, few studies have examined social cognition among individuals with PTSD and affective disorders. Our work points towards alterations in Theory of Mind (the ability to infer the mental states of others), the recognition of emotion conveyed in speech prosody, and in empathy among adults with PTSD stemming from developmental trauma exposure. These alterations are likely to be mediated by well-known deficits in cognitive (e.g., working memory, attention) and affective (e.g., affect regulation) processing resources thought requisite to social cognitive function and that have been shown to be affected in PTSD. Preliminary work from our laboratory suggests further that dissociative symptoms contribute to the development and maintenance of alterations in social cognitive functioning among individuals with PTSD. This work has important implications for the intergenerational transmission of trauma, where alterations in the ability to interpret and respond to social cues may alter familial interactions among trauma survivors.

Symposium
Thursday, November 5
10:00 a.m. to 11:15 a.m.
Salon A-C – Bio-Med/ Genetics Track

Molecular Genetic Studies of PTSD: Novel Results from the Psychiatric Genetics Consortium for PTSD Investigators
(Bio Med, Bio Med-Genetic, Adult, M, Industrialized)

Amstadter, Ananda, PhD
Virginia Institute for Psychiatric and Behavioral Genetics, VCU, Richmond, Virginia, USA

The field has recently undergone tremendous growth in the area of molecular genetic investigations of posttraumatic stress disorder (PTSD). The first genome-wide association study (GWAS) for PTSD was published in 2013, and since then, numerous other GWAS investigations have been conducted. The Psychiatric Genetics Consortium for PTSD (PGC-PTSD) has brought together an impressive group of investigators who have molecular genetic data in trauma-exposed samples in an effort of collaborative science to leverage the power of increased sample sizes to make way on the genetic architecture of PTSD. This symposium, organized by the Genomics Special Interest Group of ISTSS and the PGC-PTSD, is bringing together four speakers who are part of the PCG-PTSD, who will be presenting molecular data on PTSD. Dr. Laramie Duncan, a lead statistician for the PGC-PTSD group, will be presenting the results from the group’s meta-analysis. Dr. Murray Stein will present PTSD GWAS data from Army STARRS, a large cohort study of US Army soldiers who have been assessed for PTSD and related disorders. Dr. Michael Hauser will present GWAS results on PTSD from a large study of US Iraq and Afghanistan Veterans. Lastly, Dr. Erika Wolf will present data on molecular variation interactions with PTSD diagnostic status in relation to metabolic syndrome.

Genomics of PTSD from the International Psychiatric Genomics Consortium, PTSD Group (PGC-PTSD)
(Bio Med, Bio Med-Bio/Int-Genetic, Adult, M, Global)

Duncan, Laramie, PhD1; Ratanatharathom, Andrew, MA, PhD Student2; Detroit Neighborhood Health Study, DNHS3; Ressler, Kerry, MD, PhD4; Almli, Lynn, PhD5; Nievengelt, Caroline, PhD6; Maihofer, Adam, MS6; Bierut, Laura, MD7; Yale-Penn Group, YPG8; Mid-Atlantic Mental Illness Research, Education, and Clinical Center Workgroup, DMPP9; Drakenstein Child Health Study, DCHS10; Liberzon, Israel, MD11; NC-PTSD Genetics Group, VA Boston12; Bryant, Richard, PhD13; Amstadter, Ananda, PhD14; Miller, Mark, PhD15; Ripke, Stephan, PhD16; Daly, Mark, PGDip Psych17; Koenen, Karestan, PhD18
1Harvard Medical School, Boston, Massachusetts, USA
2Columbia University, Mailman School of Public Health, New York, New York, USA

18|Page  Presenters’ names are in bold. Discussants’ names are underlined. Moderators’ names are in bold and underlined. Guides to Keyword Abbreviations located on pages 2 – 3. (Primary keyword, Secondary Keywords, Population type) Presentation Level – Region
Background: Post-traumatic stress disorder (PTSD) is a common psychiatric disorder with substantial unmet treatment need. Genetic variants contributing to PTSD are largely or completely unknown. Methods: PGC-PTSD – the largest collection of psychiatric genetics researchers focused on PTSD – has completed analysis for 19,090 participants. GWAS was performed on each dataset individually, followed by within-ancestry meta-analysis and then trans-ethnic meta-analysis. Results: One novel locus reached genome-wide significance in the overall meta-analysis (p=3.94e-8). This locus is intergenic on chromosome 4 and the strongest SNP was rs2839649 (OR=1.32, minor allele frequency =0.08, Info = 0.82). Further, polygenic analyses suggest shared genetic risk between PTSD and both bipolar disorder and schizophrenia. Finally, among the European ancestry participants, SNP-chip heritability estimates are 12% (LDSC) and 9% (GCTA). Discussion: In this collaborative study with sample size larger than any PTSD GWAS published to date, we identified a novel genomic locus associated with PTSD across African American, American and Latino samples. Analyses involving multiple loci provide compelling evidence of a genetic basis for PTSD, with partially shared genetic risk with other major psychiatric disorders.

Candidate SNPs Moderate the Effect of PTSD Severity in Association with Metabolic Syndrome

(Bio Med, Bio Med-illness-Generic, Adult, M, Industrialized)

Wolf, Erika, PhD; Logue, Mark, PhD; Fuhrman, Isaac, BA; Sadeh, Naomi, PhD; Milberg, William, PhD; McGlinchey, Regina, PhD; Miller, Mark, PhD

1National Center for PTSD at VA Boston Healthcare System & BUSHM, Boston, Massachusetts, USA

2VA Boston Healthcare System & BUSHM, Boston, Massachusetts, USA

3VA Boston Research Institute, Boston, Massachusetts, USA

4Harvard Medical School & VA Boston Healthcare System, Boston, Massachusetts, USA

PTSD is associated with increased risk for metabolic syndrome (mets), defined by obesity, high blood pressure, insulin resistance, and dyslipidemia. Mets is influenced by biological processes also involved in PTSD, including inflammation and stress responding. Genetic studies rarely find variants that predict multiple mets criteria thus it is unclear how genetic variants impact overall risk for the syndrome. We examined if the effects of PTSD on metabolic system differed by genotype by testing candidate single nucleotide polymorphisms (SNPs) from the mets literature in interaction with PTSD severity. This was evaluated in two samples (n = 203 and n = 226) of white, non-Hispanic trauma-exposed veterans. Of 87 candidate SNPs, three SNPs in two genes (ABCD1 and IGFBP1) interacted significantly with PTSD to predict mets across datasets (smallest p = .002), 27 SNPs interacted with PTSD to predict one mets criterion and 13 interactions were associated with two or more criteria; 7 interactions replicated across datasets. There were more than two times as many effects as expected by chance. Results suggest a synergistic effect wherein genetic risk variants affecting specific biological processes potentiate the negative health effects of PTSD, potentially culminating in a common pathophysiology that increases overall risk for mets.

A Genome Wide Association Study of PTSD in US Military Veterans

(Bio Med, Chronic-Mil/Vets, Adult, M, Industrialized)

Hauser, Michael, PhD; Kimbrel, Nathan, PhD; Dennis, Michelle, BA; MIRECC Workgroup, VA Mid-Atlantic; Garrett, Melanie, MS; Beckham, Jean, PhD; Ashley Koch, Allison, PhD

1Duke University, Durham, North Carolina, USA

2Department of Veterans Affairs Medical Center, Veterans Integrated Service Network (VISN) 6 Mental Illness Research, Education and Clinical Center (MIRECC), Durham, North Carolina, USA

3Durham VA Medical Center, Durham, North Carolina, USA

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5Duke University Medical Center, Durham, North Carolina, USA

6Durham VA/HR&D, Mid-Atlantic MIRECC, Duke University, Durham, North Carolina, USA

Posttraumatic stress disorder (PTSD) is a complex anxiety disorder that develops after exposure to either military or civilian traumatic stress. We are studying the genetics of PTSD in US Iraq and Afghanistan era veterans through the VA Mid-Atlantic Mental Illness Research, Education and Clinical Center (MIRECC). A total of 1708 samples were genotyped using the Illumina platform. An additive genetic model tested for increased risk of having current PTSD among trauma-exposed participants. Among the NHB subset, our top hits were within the Unc-13 Homolog C (UNC13C; rs73416909; p=5.68 x 10-6), and Down Syndrome Cell Adhesion Molecule (DSCAM; rs7729033; p=1.40 x 10-5). UNC13C is involved in synaptic vesicle priming, while DSCAM modulates neural cell adhesion. Among the NHB subset, our top hits were within the TBC1 Domain Family, Member 2 (TBC1D2; rs7866350; p=1.1 x 10-6), and the Synaptogyrin 2 (SYNGR2; rs2437775; p=6.4 x 10-6). TBC1D2 has been associated with multiple sclerosis, another neurologic disease. SYNGR2 is involved in dendritic spine development in hippocampal neurons of rats and has been associated with autism. While these are all interesting candidate genes with strong functional hypotheses linking them to PTSD risk, none reaches genome wide significance. Robust association results for PTSD await the meta-analysis of multiple large datasets.
Genomewide Association Studies of Post-Traumatic Stress in Army STARRS
(Bio Med, Gen/Int-Mil/IVets, Adult, M, Industrialized)

Stein, Murray, MD, MPH, FRCPs; Chen, Chia-Yen, ScD, MS2; Ursano, Robert, MD; Jain, Sonia, PhD; Cai, Tianxi, PhD2; Heeringa, Steven, PhD; Gelemter, Joel, MD; Kessler, Ronald, PhD; Smoller, Jordan, MD
1University of California, San Diego, La Jolla, California, USA
2Massachusetts General Hospital, Boston, Massachusetts, USA
3Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA
4UC San Diego / VA San Diego Health Care System, La Jolla, California, USA
5University of Michigan, Ann Arbor, Michigan, USA
6Yale University School of Medicine; VA Connecticut Healthcare System, West Haven, Connecticut, USA
7Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA

The Army Study to Assess Resilience in Servicemembers (Army STARRS) has evaluated posttraumatic stress disorder (PTSD) symptoms, suicidality, and numerous other trauma-related phenotypes in over 40,000 soldiers who gave blood and permission to conduct genetic analyses. Among the participants, there are nearly 5,000 individuals with lifetime PTSD and approximately 18,000 trauma-exposed individuals without lifetime PTSD. Our research team has conducted genomewide association analyses (GWAS) in an initial set of approximately 2,000 PTSD cases and 3,000 trauma-exposed controls and then attempted to replicate the findings in a second set of approximately 2,000 PTSD cases and 1,000 trauma-exposed controls. The participants in these studies are ancestrally diverse, and so analyses have been conducted within ancestral groups and then meta-analyzed across ancestral groups where appropriate. Results from these GWAS will be presented, along with analysis of biometrically informed “candidate” gene analyses. Also to be presented are longitudinal data from a set of analyses focused on a cohort of approximately 8,000 soldiers who were assessed prior to, and then again upon return from, a 6-9 month deployment to Afghanistan. The analysis of that unique cohort provides information about genetic factors that may influence resilience to traumatic stress.

Symposium
Thursday, November 5
10:00 a.m. to 11:15 a.m.
Salon D – Public Health Track

A Translational Approach to Posttraumatic Risk Behaviors across Trauma Exposed Patient Populations
(Clin Res, Acc/Inj-Pub Health-Mil/IVets, Lifespan, M, Industrialized)

Zatzick, Douglas, MD1; Danielson, Carla, PhD2
1University of Washington/Harborview Medical Center, Seattle, Washington, USA
2Medical University of South Carolina, Charleston, South Carolina, USA

For the first time DSM-5 formally incorporates behaviors that risk traumatic life event recurrence into posttraumatic stress disorder diagnostic criteria. This symposium will incorporate a full translational spectrum of presentations ranging from basic epidemiologic observations through clinical intervention trials. The symposium aims to better understand the interrelationships between PTSD and risk behaviors across adolescent and adult civilian and veteran trauma-exposed patient populations. Dr. O’Donnell will present novel basic clinical epidemiological findings suggesting that early post-injury distress predicts later recurrent traumatic life events including traumatic injury. Dr. Saunders will present basic clinical data on adolescent risk behaviors and comorbidity. Dr. Freed will present basic clinical epidemiologic data on risk for suicide and comorbid PTSD symptom development in OEF/OIF veterans. Dr. Zatzick will present randomized clinical trial data suggesting that posttraumatic risk behaviors can be effectively targeted by evidence-based intervention strategies. Chair led audience discussion will be encouraged.

Effectiveness Trials Successfully Targeting Posttraumatic Risk Behaviors after Traumatic Injury
(Clin Res, Acc/Inj-Prevent/Sub/Abuse, Lifespan, M, Industrialized)

Zatzick, Douglas, MD1; Ingraham, Leah, BS1; Neam, Victoria, BA1; Guiney, Roxanne, BA1; Kompar, Christopher, BS1; Sandgren, Kirsten, MSW1; Kelly, Cory Michael, BS1; Love, Jeff, BA1; Darnell, Doyanne, PhD1
1University of Washington/Harborview Medical Center, Seattle, Washington, USA
2University of Washington, Seattle, Washington, USA

DSM-5 now includes behavior that risk recurrent traumatic life events as a symptom in the composite PTSD diagnosis. A number of studies using motivational interviewing-based intervention strategies suggest that posttraumatic risk behaviors may be modified or even reduced. The current presentation will summarize results from two randomized effectiveness that successfully targeted post-injury alcohol use in adults and post-injury weapon carrying in
adolescents. In the first study 120 adult injury survivors were randomized to a care management intervention with embedded motivational interviewing versus usual care as usual. Patients in the care management intervention had significantly reduced (P < 0.5) alcohol abuse/dependence diagnoses (24% reduction, 95% CI -20%, -27%), compared to the usual care control group (13% increase 95% CI 8%, 18%) over the course of the year after the injury. In the second study injured adolescents (N=120), a third of whom reported weapon carrying prior to the intervention, were randomized to motivational interviewing embedded within care management or usual care. At 12-months after the injury, 4 (7.3%) of intervention patients versus 13 (21.3%) of control patients reported carrying a weapon (RR=0.31, 95% CI=0.11 to 0.90). These studies suggest that motivational interviewing based interventions can be used to target risk behaviors associated with trauma.

**Early Traumatic Stress Symptoms and their Role in Later Injury/Illness Risk**

(Clin Res, Health, Adult, M, Industrialized)

O'Donnell, Meaghan, PhD; Nathan, Alkemade, PhD; Bryant, Richard, PhD; Creamer, Mark, PhD; Silove, Derrick, MD, PhD; McFarlane, Alexander, MD; Forbes, David, PhD

1Australian Centre for Posttraumatic Mental Health, University of Melbourne, Carlton, Victoria, Australia
2ACPMH, University of Melbourne, Melbourne, Victoria, Australia
3University of New South Wales, Sydney, New South Wales, Australia
4The University of Adelaide, Adelaide, South Australia, Australia

Injury is a leading contributor to the global burden of disease. The mental health factors that contribute to the disease burden over time are poorly understood. The main aim of the study was to investigate the role that early traumatic stress symptoms after injury contributed to later injury/illness and disability. A total of 993 injury patients were randomly selected for this cohort study. Participants were assessed just prior to discharge from hospital and reassessed at 6 years post-injury. Characteristics about the injury, past psychiatric history; prior disability severity; acute traumatic stress symptoms (posttraumatic stress disorder, anxiety, and depression), pain severity were all measured just prior from discharge. At 6 years the occurrence of another serious injury or a serious illness over the preceding 6 year period and disability were assessed. A structural equation model was tested using MPlus. After controlling for characteristics of the injury, acute pain, past psychiatric history, and disability prior to the injury, acute traumatic stress symptoms significantly predicted a later serious injury or illness at 6 years. Both acute traumatic stress severity and later injury/illness significantly predicted 6 year disability severity. Further research should examine further whether later injury and illness are driven by different pathways.

**Risk Behavior, Malleable Mechanisms, and Other Clinical Features of Trauma-Exposed Teens Participating in an RCT for Integrative Treatment**

(Clin Res, CSA-Sub/Abuse, Child/Adol, M, Industrialized)

Danielson, Carla, PhD; Saunders, Benjamin, PhD; Adams, Zachary, PhD; de Arellano, Michael, PhD; McCart, Michael, PhD; Sheidow, Ashli, PhD; Chapman, Jason, PhD; McGuhan, Elizabeth, MSW; Soltis, Kathryn, BA

1Medical University of South Carolina, Charleston, South Carolina, USA
2National Crime Victims Research and Treatment Center/MUSC, Charleston, South Carolina, USA
3Oregon Social Learning Center, Eugene, Oregon, USA

The goal of this presentation is to report on the baseline characteristics of an unique sample of interpersonal traumatic event (ITE)-exposed teens participating in an ongoing NIDA-funded RCT evaluating a treatment for posttraumatic stress and substance use problems, with a particular focused on potential mechanisms proposed to mediate the association between ITE and risk behavior and to serve as mechanisms of action for the treatment. To date, 72 teens aged 13-18 (M=15.4, SD=1.2; 87% girls; 42% ethnic/racial minority; >50% multiple ITEs) have been enrolled in the study. Youth and caregivers complete interviews and measures at pre-treatment baseline and at multiple follow-ups. Baseline findings illustrate high prevalence of risky behavior among the sample, with youth reporting an average of 14.9 substance-use days and some youth using up to 72 days in the last 90 days. Mean age of first consensual sexual experience was 14.3 (SD=1.2), with a mean of 5.4 (SD=6.9) lifetime sexual partners. Analyses also revealed that emotional reactivity and hopelessness are highly prevalent and that these factors are related to risk behavior (e.g., 62% report using substances to help with managing anxiety and/or depression; three-fourths report difficulty feeling happiness or love). Clinical and research implications will be discussed.

**Suicide Risk and PTSD in Military Primary Care Populations: From Epidemiology to Practice**

(Clin Res, Depr-Prevent-Pub Health-Care, Adult, M, Industrialized)

Freed, Michael, PhD, EMT-B; Belsher, Brad, PhD; Novak, Laura, BS; Liu, Xian, PhD; Evatt, Daniel, PhD; Jaycox, Lisa, PhD; Bray, Robert, PhD; Engel, Charles, MD, MPH

1Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury / USUHS, Bethesda, Maryland, USA
2Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury, Bethesda, Maryland, USA
3Department of Defense, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, Bethesda, Maryland, USA
4RAND Corporation, Arlington, Virginia, USA
5RTI International, Research Triangle Park, North Carolina, USA
Suicide is the second leading cause of death among active component military members. 1% of military primary care visits endorse some suicide risk, with 25% of those visits rated as moderate or high risk. PTSD and depression are modifiable risk factors for suicide, and these disorders are regularly managed in military primary care. We analyzed correlates to suicide risk in 1038 military members with PTSD and/or depression symptoms eligible for the US Army’s primary care collaborative care program and who consented to participate in a related study. 10% endorsed at least one lifetime suicide attempt. Within the past 2 months, 14% endorsed thoughts of suicide, and 9% wanted to harm themselves. Although PTSD symptoms elevated suicide risk, when depression was added into the model, depression, and not PTSD, demonstrated a significant association with elevated suicide risk. Findings from the broader study suggest that despite the greater risk associated with depression, primary care providers still may be more comfortable managing depression than PTSD. Collaborative care programs reduce suicide risk in patients with mental health problems, and our findings support the need for primary care providers in military settings to identify and manage suicide risk for patients with PTSD and depression.

Symposium
Thursday, November 5
10:00 a.m. to 11:15 a.m.
Salon E – Military Track

Traumatic Events Experienced by Military Members in a Variety of Contexts: Mental Health Associations and Modifying Factors
(Global, Complex-Health-Rape-Mil/Vets, Adult, M, Industrialized)

Watkins, Kimberley, MA¹; Fikretoglu, Deniz, PhD²
¹Department of National Defence, Ottawa, Ontario, Canada
²Defence Research and Development Canada, Toronto, Ontario, Canada

As part of their operational requirements, military personnel may be exposed to an array of potentially traumatic situations, both those specific to their occupation and those that the general population may also encounter. The vast majority of the research on traumatic stressors in the military has focused on combat exposure, yet other types of trauma, and other influential factors, may also be associated with declines in mental health. This symposium investigates several types of traumatic experiences, their associations with mental health, and modifying factors among members of the Canadian Armed Forces (CAF), in multiple contexts. The first study examines the moderating role of alexithymia in the association between early childhood and other life events and mental health among CAF recruits surveyed during basic training. The second presentation also uses moderation techniques, exploring the effect of gender on the association between combat and post-deployment psychological well-being. The third study investigates this association in more detail, examining the association between specific combat exposures and post-deployment mental health. Finally, the fourth study examines the prevalence, context, and risk factors for military work-related sexual trauma in the CAF, both on deployment and in garrison.

The Moderating Effect of Alexithymia on the Relationship between Pre-Military Life Events and Mental Health in Canadian Armed Forces Recruits
(Global, Affect/Int-CPA-Cog/Int-Health, Adult, M, Industrialized)

McCuaig Edge, Heather, PhD; Lee, Jennifer, PhD
Department of National Defense, Canada, Ottawa, Ontario, Canada

Research has shown that adverse childhood experiences (ACE) or traumatic life events can have an impact on later mental health disorders including post-traumatic stress disorder (PTSD) and depression. Emotions and alexithymia can also play a role in the association between ACE and later mental health problems. The aim of the present study was to examine the influence of alexithymia on the
Association of Combat Exposure with Mental Health Disorders among Canadian Armed Forces Members

(Global, Health-Res Meth-Mil/Vets, Adult, M, Industrialized)

Sudom, Kerry, PhD; Watkins, Kimberley, MA; Zamorski, Mark, MD

Department of National Defence, Ottawa, Ontario, Canada

Past research has shown that combat exposure can be detrimental to military members' mental health. Existing research has measured combat exposure in a variety of ways, most commonly as a total count of experiences. However, measurement of combat exposure in this way does not provide information on the specific aspects of combat that are most strongly associated with mental health. This study investigated the associations of specific combat experiences with posttraumatic stress disorder (PTSD) and major depressive disorder (MDD) among Canadian Armed Forces (CAF) personnel surveyed after return from deployment in Afghanistan. It was found that each combat experience was, on its own, associated with increased likelihood of PTSD, and most were related to MDD. The strongest combat-related predictor of both PTSD and MDD was the perceived responsibility for the death of an ally. The inability to help injured civilians and the powerlessness to respond due to the rules of engagement (ROE) were also strongly associated with PTSD. Conversely, certain combat experiences (e.g., shooting, calling in fire) were associated with lower odds of post-deployment PTSD or MDD.

Identification of the contributors to deployment-related mental health problems is important to the military, in order to focus efforts on prevention or attenuation of combat-related mental health problems.

The Moderating Effect of Gender on the Association between Combat Exposures and Post-Deployment Mental Health

(CulDiv, Health-Mil/Vets, Adult, M, Industrialized)

Silins, Stacey, PhD; Watkins, Kimberley, MA; Zamorski, Mark, MD

Department of National Defence, Ottawa, Ontario, Canada

Combat exposure while on deployment has been linked to the development of mental health issues among service personnel (Hoge et al., 2007). Evidence suggests that women in the military are more likely to be diagnosed with a mental health disorder after returning home from deployment (Wojcik et al., 2009). Given the relatively recent and increased presence of women in combat roles, more research disentangling the gender differences of post-deployment health in the context of combat exposure is needed (Polusny et al., 2014). To this end, the present study investigated whether combat exposures were differentially associated with mental health outcomes based on participants' sex, in a sample of Canadian Armed Forces (CAF) personnel (N=11,272) returning from deployment in Afghanistan. Both female gender and increased combat were independently associated with increased PTSD symptom burden and poorer mental health (as measured by the SF-36 Mental Health Component Summary). In addition, a small but significant interaction effect between gender and combat exposure was found: Women with higher levels of combat reported disproportionately higher PTSD symptom burden and poorer mental health than their male counterparts. These results highlight the need for continued research examining the potential risk factors and particular deployment experiences of servicewomen in combat situations.

Prevalence, Circumstances, and Correlates of Work-related Sexual Trauma in the Canadian Military

(Global, Rape-Mil/Vets, Adult, M, Industrialized)

Watkins, Kimberley, MA; Bennett, Rachel, MSc; Zamorski, Mark, MD

Department of National Defence, Ottawa, Ontario, Canada

Female military personnel may be at increased risk for sexual trauma, with US survey data showing an annual prevalence of unwanted sexual contact of 6.1%. The majority of military sexual trauma research, however, is based on US personnel, uses survey data on unrepresentative samples (e.g., treatment-seeking veterans) or with low response rates, and has not distinguished between work-related and other forms of sexual trauma. The present study explores these issues using the 2013 Canadian Forces Mental Health Survey (n = 6700, response rate 80%). Lifetime sexual trauma was assessed using the PTSD module of the Composite International Diagnostic Interview (CIDI). Military work-related sexual trauma (MST) was defined as unwanted touching or sexual assault which occurred in the military workplace, on deployment, or was perpetrated by military or civilian personnel. Lifetime MST was reported in 2.5% of personnel, with women reporting much higher rates (14%) than men (0.7%). MST occurred in an important minority of cases of lifetime sexual trauma (35% in women, 10% in men). Among women, those who deployed were at increased risk for MST; approximately one-quarter of MST occurred on deployment, and more than half occurred in the workplace in garrison. Information on the prevalence, circumstances, and correlates of MST will inform the prevention and control of MST.

relationships of ACE and traumatic life events with PTSD and depressive symptoms amongst Canadian Armed Forces recruits. Participants included 19,094 Regular Force recruits who completed a baseline health survey between 2003 and 2009. Hierarchical linear regressions suggested that increased ACE and traumatic life events were associated with higher levels of depressive and PTSD symptoms, as were "difficulty interpreting feelings" (DIF), "difficulty describing feelings" (DDF), and "externally oriented thinking" (EOT) facets of alexithymia. Preliminary moderation results pointed to significant interactive effects of ACE and traumatic life events with DIF and EOT facets of alexithymia in the prediction of later depression and PTSD symptoms. Levels of mental health difficulties among recruits who have experienced ACE or traumatic life events may therefore vary, depending on their levels of EOT or DIF. Implications for future longitudinal research and policy are discussed.
Application of Machine Learning to Diagnostic and Prognostic Brain Imaging in Anxious Populations
(Assess Dx, Anx-Res Meth-Mil/Vets-Neuro, Lifespan, M, Industrialized)

Simmons, Alan, PhD¹; Strigo, Irina, PhD²
¹San Diego VA/University of San Diego, San Diego, California, USA
²UCSF/SF VAMC, San Francisco, California, USA

Application of machine learning methodologies may provide a road map for effective application of brain imaging to clinical purposes. We describe application of machine learning and classification approaches to understanding the underlying properties of disorders that are difficult to dissociate, effectively apply to diagnosis of a single complex clinical case, and effectively predict which individuals which best respond to cognitive interventions. We will show coherent findings and utility in these approaches in understanding stress disorders in patient populations.

Comparison of Multimodal Brain Imaging Classification Approaches in War Veterans
(Assess Dx, Anx-Res Meth-Civil/War-Neuro, Adult, M, Industrialized)

Simmons, Alan, PhD¹; Matthews, Scott, MD¹; Buchsbaum, Monte, MD²
¹San Diego VA/University of San Diego, San Diego, California, USA
²University of California, San Diego, La Jolla, California, USA

Advancements of technology and applied statistical approaches have the potential to change how we understand and study the brain regarding the field of mental health. There are a number of machine learning approaches (such as Support Vector Machine (SVM) Random Forests, and Neural Networks) that can be applied to imaging based patient classification. We investigated the sensitivity and specificity of these methods for classification based on psychiatric diagnosis (DSM-IV) in a multimodal imaging (MRI, fMRI, PET) sample of 47 male veterans with mixed PTSD, TBI and depressive symptoms using both regional networks and voxel-based approaches. We found a high degree of similarity between the machine learning approaches and relatively high group prediction using traditional DSM-IV diagnosis. Particularly the cingulate, prefrontal, and insula cortex appeared to be most important in effective prediction of diagnosis. This work suggests that multimodal imaging together with machine learning techniques can provide clearer understanding of the biological processes of overlapping psychiatric conditions.

Classifying Brain Response to Experimental Pain in a Subject with Mixed Gastrointestinal, Eating Disorder and Depressive Symptoms: fMRI Case Study
(Assess Dx, Anx-Res Meth-Mil/Vets-Neuro, Lifespan, M, Industrialized)

Strigo, Irina, PhD²; Bernard, Rebecca, PhD²; Huang, Jeannie, MD, MPH²; Kaye, Walter, MD²
¹UCSF/SF VAMC, San Francisco, California, USA
²University of California, San Diego, San Diego, California, USA

Patients with Eating disorders (ED) often present functional and/or organic gastrointestinal (GI) disorders and commonly complain of GI symptoms, including abdominal pain, and emotional symptoms, including depression. Here we describe a patient who presented a mixed diagnosis of GI pain, ED and depressive symptomology, and was characterized by high trait anxiety and perfectionistic personality. Using functional brain imaging during a validated experimental somatic pain paradigm we found that patient’s response to pain anticipation and experience showed the expected activation pattern within the regions implicated in anticipatory and pain responses, namely insula and anterior cingulate cortices. Importantly, using brain response to pain anticipation and experience within the insula, as well as self-report on several psychological measures and employing machine learning approach we classified this patient into a diagnostic category that overlapped with individuals with GI pain. This work is the first to demonstrate the use of supervised learning models for single patient classification.

Neural Correlates of Emotion Identification Predict Treatment Response in PTSD
(Assess Dx, Clin Res-Neuro, Adult, M, Industrialized)

Spadoni, Andrea, PhD¹; Norman, Sonya, PhD²; Simmons, Alan, PhD¹
¹San Diego VA/University of San Diego, San Diego, California, USA
²National Center for PTSD, San Diego, California, USA

Baseline brain activity may provide important information to optimize individual response to PTSD treatment. Thirty-one OEF/OIF Veterans with PTSD completed an emotion identification task during functional neuroimaging prior to initiation of Prolonged Exposure Therapy. We performed a classification analysis (support vector machine algorithm) on the pre-treatment functional data (mean percentage signal change to Fear-, Sad-, and Happy-Oval conditions) to predict treatment outcomes (remission versus no remission of PTSD). Twenty-four individuals completed therapy (> 8 sessions), and 40% of these subjects no longer met PTSD DSM-IV criteria. Activation across 6 regions correctly classified 79% of the sample using a Fear-Oval contrast ($\chi^2 = 5, p < 0.05$). These regions included 3 frontal: right inferior frontal gyrus, left rolandic operculum, and left medial superior frontal gyrus, and 3 posterior regions: right superior occipital gyrus, left superior parietal gyrus, and left superior temporal gyrus. The model best predicted which Veterans
would remain diagnosed with PTSD (87% sensitivity). These results suggest that pre-treatment neural response to an emotional identification task may provide a useful marker of who will respond favorably to exposure-based treatment. Prospective identification of non-responders could provide the basis for triage and targeted adjunctive services.

Panel Presentation
Thursday, November 5
10:00 a.m. to 11:15 a.m.
Balcony J-K – Other Interventions Track

Implementing Evidence Informed Post-Disaster Interventions in Diverse Settings
(Clin Res, Cui Div-Terror-Train/Ed/Dis-Civil/War, Adult, M, Industrialized)

Naturale, April, PhD, MSSW1; Hamblen, Jessica, PhD2; Watson, Patricia, PhD3; Pytovarenko, Martha, MPsyCh4; Vickers, Susan, JD5

1ICF International, Fairfax, Virginia, USA
2VA National Center for PTSD/White River Junction VA Medical Center, White River Junction, Vermont, USA
3National Center for PTSD, Executive Division, White River Junction, Vermont, USA
4Ukrainian Institute of Cognitive and Behavioral Therapy, Lviv, Ukraine
5MA Office for Victim Assistance; Victim Rights Law Center, Boston, Massachusetts, USA

Following disasters and terrorism, the high demand for behavioral health services, coupled with cultural factors and limited availability of well-trained providers, creates a demand for disaster behavioral health support and training that is modified and delivered according to the local needs of the community. This panel will describe three settings in which disaster behavioral health tools and training strategies were modified to fit the demands of the local need, including dissemination of a 12-session cognitive behavioral intervention for post-disaster distress that has been used following national and international disasters including the attack on World Trade Center, Hurricane Katrina and the Boston Marathon bombing, a virtual Skype school set up to respond to the needs in the aftermath of the Ukrainian revolution, and a multi-site training for flooding in Canada. Panelists will discuss programmatic challenges of integrating our current science and clinical knowledge to not only train but support a multi-component program of care following terrorism, mass violence and armed conflict, describe evaluation strategies for each of these initiatives, and engage the audience in a discussion of next steps.
The Role of Emotion Regulation in the Early Response to Trauma
(Clin Res, Affect/Int-Assess Dx, Adult, I, Industrialized)

Macia, Kathryn, PhD Student1; Carlson, Eve, PhD2
1Palo Alto University, Palo Alto, California, USA
2National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA

Cross sectional research has suggested that emotion regulation capacities influence PTSD severity, but little is known about the role of emotion regulation soon after trauma in development of PTSD. We examined mediating and moderating mechanisms of emotion regulation in a longitudinal study of adults exposed to traumatic injury of themselves or a family member (n=165). Personal history, personality variables, and early symptoms were assessed within 14 days, emotion regulation and negative posttraumatic cognitions were assessed one week later, and PTSD symptoms were assessed 2 months postrauma. Path and structural equation analyses revealed: (1) emotion regulation mediated the relationship between early PTSD symptoms and symptoms at 2 months; (2) the relationship between baseline posttraumatic cognitions and later PTSD symptoms was mediated by emotion regulation; (3) emotion regulation moderated the relationship between concurrent posttraumatic cognitions and later PTSD symptoms such that the effect of cognitions on symptoms was attenuated as emotion regulation deficits increased; (4) caretaker dysfunction predicted attachment-related personality disorder, which together explained one third of the variance in emotion regulation following trauma. Findings are consistent with a theoretical model in which emotion regulation capacities mediate adult responses to traumatic stress.

Measuring Sudden Strong Emotions to Assess Emotion Regulation Skills in Trauma Survivors
(Assess Dx, Affect/Int-Assess Dx-Clin Res, Adult, I, N/A)

Carlson, Eve, PhD1; Dalenberg, Constance, PhD2; Lindley, Steven, MD, PhD3
1National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
2Alliant International University, San Diego, California, USA
3VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

Early trauma and insecure attachment can impair emotion regulation capacities and result in strong responses to stress. Most emotion regulation measures collect reports on dispositional emotion regulation strategies that require accurate insight and reporting about emotions and behaviors. For clinical use, these measures are limited because they cannot easily capture change, and because lower capacities for self-awareness and mentalizing in those with severe problems with emotion regulation make their reports less accurate. We developed the Distress Response Scale (DRS) to assess the frequency over the past week of episodes of sudden, strong anxiety, anger, and dysphoria because these seem likely to be noticed and accurately reported. Factor analysis on data (N=703) from one community and three clinical samples revealed a univariate structure measured well by 7 items. Internal consistency was high (α=.93), and in 3 clinical samples, scores were correlated with PTSD (r=.65), dissociation (r=.69), the MCMI anxiety and borderline scales (r=.55,.45), and age of first trauma (r=-.31). Data collected in "real time" in recent trauma survivors showed that spikes in anxiety, anger, and depression were related to corresponding DRS items. This brief measure could be useful for screening for and measuring emotion regulation problems in clinical research and treatment.

Cumulative Trauma and Health-Related Functioning: The Mediating Role of Emotion Regulation
(Clin Res, Chronic-Clin Res-Health, Adult, I, Industrialized)

Henn-Haase, Clare, PsyD1; Falvey, Erin, PhD2; Saito, Jean, MPH, MSW1; Garvert, Donn, MS1; Cloitre, Marylene, PhD2
1New York University Langone Medical Center, Department of Psychiatry, New York, New York, USA
2Private Practice, San Diego, California, USA
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4National Center for PTSD, Menlo Park, California, USA
5National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA

Cumulative trauma adversely impacts emotional and physical health and health-related functioning. Studies have reported emotion regulation and social bonds buffer effects of general stress on morbidity, mortality and quality of life. No study has evaluated the role of emotion regulation and social bonds as mediators between cumulative trauma and health-related functioning in PTSD patients. Latent Class Analyses among 176 treatment seeking women with PTSD characterized the impact of emotional and physical problems on functioning as measured by the Medical Outcomes Scale SF-12. Three groups were identified: (1) relatively little...
impact of emotional or physical health problems on functioning (27%), (2) emotional problems as contributing to problems in functioning, and (3) the largest group identified both emotional and physical health problems as contributors to poor functioning (48%). The third group experienced more types of childhood traumas but equivalent number of adult events suggesting the salient influence of childhood trauma on physical health. Path analyses using the entire sample found that cumulative trauma predicted health-related functional impairment. However, emotion regulation capacity (DERS) fully mediated this relationship, suggesting the importance of emotion regulation in influencing both physical and mental health related problems in functioning.
Concurrent Session 2

Symposium
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Galerie 2 – Cognitive Processes/Interventions Track

Treating Trauma in Psychosis with Trauma-focused Treatments (PE vs EMDR vs WL). Primary and Secondary Effects
(Clin Res, CPA-CSA-Chronic-Cog/Int, Adult, M, Industrialized)

van der Gaag, Mark, Prof.
VU University Amsterdam, Amsterdam, Noord Holland, Netherlands

An RCT (N=155) was performed for the treatment of patients with psychosis and PTSD. Patients were randomized to 8 sessions Prolonged Exposure vs EMDR vs Waiting list. In this symposium, we will present the primary outcomes (PTSD-symptoms), but also several secondary outcomes, including psychosis symptoms, depression, social functioning, dissociation (post treatment and 6 months follow-up). Also adversities of the trauma-focused treatments will be presented, such as crisis interventions, suicide attempts, re-victimization, symptom exacerbation, worsening, and burden of the treatment (most variables were measured each treatment session) during and after treatment. In addition to regular measures (self-reports or clinical interviews), in a subgroup of patients (those with daily auditory verbal hallucinations), we used Experience Sampling Method to obtain daily experiences before and after the treatment, and thus provides primary and secondary outcomes on a more detailed level. All data presentations will be introduced by an overview of secondary outcomes of Prolonged Exposure. Our conclusion is that trauma-focused treatment shows excellent primary outcomes, but also some significant secondary gains, in the absence of adversities during the treatments. Even for this severely impaired and high comorbid group of patients trauma-focused treatments are effective and safe.

Objectives: To assess effects on hallucinations, delusions, depression, suicidality, dissociation and social functioning of PTSD treatment versus a waitlist condition in patients with psychosis. Method: In the Treating Trauma In Psychosis study 155 patients in treatment as usual for a psychotic disorder (MINI+) were randomly assigned to EMDR, Prolonged Exposure or Waiting List for their co morbid PTSD (CAPS). Both treatment conditions were superior to Waiting List in diminishing PTSD[1]. Secondary outcome variables were monitored before and after treatment and at 6 month follow-up. The PSYRATES measured hallucinations and delusions, the GPTS paranoid thoughts, the BDI-II depression and suicidality, the CAPS-items 28-30 dissociation and the PSP social functioning. Results: The treatment conditions caused neutral to positive changes in all secondary outcome variables. Details will be shown in this presentation. Conclusions: This study adds strong arguments that in clinical practice psychotic patients should be included in PTSD treatment.

Treating PTSD in Psychosis with Trauma-Focused Treatment (PE vs EMDR vs WL): Primary Effects and Adverse Events
(Clin Res, CSA-Chronic-Clin Res, Lifespan, M, Industrialized)

van der Berg, David, MA
ParnassiaBavoGroup, den Haag, Zuid-Holland, Netherlands

Objectives: Examine efficacy and safety of prolonged exposure (PE) therapy and eye movement desensitization and reprocessing (EMDR) therapy in patients with psychotic disorders and comorbid PTSD. Method: A single-blind RCT with three arms (n=155): PE therapy, EMDR therapy and waiting list (WL), set in thirteen outpatient mental health services. Baseline, post-treatment and 6-months follow-up assessments were made. Results: Subjects in the PE and EMDR conditions showed a greater reduction of PTSD symptoms than those in the WL condition (PE: between-group effect size, 0.78, p<.001; EMDR: 0.65, p<.001). Treatment effects were maintained at 6-month follow-up for both PE and EMDR. In addition, data about adverse events during and after treatment are presented. During treatment, crisis interventions, suicide attempts, symptom exacerbation and re-victimization were measured. Treatments did not result in adverse events. Conclusions: Standard PE and EMDR protocols are effective, safe and feasible in PTSD patients with severe psychotic disorders, including present symptoms. A priori exclusion of individuals with psychosis from evidence-based PTSD treatments may not be justifiable.

Treatting PTSD in Psychosis with Trauma-focused Treatment (PE vs EMDR vs WL): Secondary Effects on Symptoms of Psychosis, Depression, Suicidality, Dissociation and Personal and Social Functioning
(Clin Res, CPA-CSA-Complex, Adult, M, Industrialized)

de Bont, Paul, MA
Radboud University, Nijmegen, Gelderland, Netherlands
Daily life: An Experience Sampling Study

van der Vleugel, Berber, MA
Universiteit van Amsterdam, Amsterdam, Noord-Holland, Netherlands

Objective: The Experience Sampling Method (ESM) obtains reports of experiences (moods, thoughts, feelings and behaviors) at the moment of their occurrence. The information is collected within the natural context of the participants’ day-to-day lives, which offers unique opportunities to understand experiences in their ecological context and enhances the validity of the assessment.

Method: All patients with daily auditory verbal hallucinations included in the clinical trial Treating Trauma in Psychosis, participated in this side-study. They were required to report on their current affect, thoughts, severity of symptoms and activity when prompted at pseudo random times by an electronic device (the PsyMate®), for 10 times a day for at least 6 consecutive days. Participants carried the device prior to the start and after completion of the randomly assigned treatment. Results: Thirty-nine patients with daily auditory verbal hallucinations were included in this side-study. Twenty-nine of them completed the post-treatment sampling period as well. Data are currently analyzed and findings will be presented in this symposium. Conclusions: The Experience Sampling Method is feasible for patients with severe psychotic and posttraumatic stress symptoms. Its findings shed light on daily life experiences, before and after treatment.

Treating Trauma in Comorbid Patients: An overview of Secondary Outcomes of Prolonged Exposure (PE)
(Clin Res, CPA-CSA-Chronic-Clinical Practice, Adult, M, Industrialized)

van Minnen, Agnes, PhD1; Zoellner, Lori, PhD2; Hamed, Melanie, PhD2; Mills, Katherine, PhD2
1University Nijmegen, Nijmegen, Gelderland, Netherlands
2University of Washington, Seattle, Washington, USA

Treating Trauma in Comorbid Patients: An overview of Secondary Outcomes of Prolonged Exposure (PE)
(Clin Res, CPA-CSA-Chronic-Clinical Practice, Adult, M, Industrialized)

van Minnen, Agnes, PhD1; Zoellner, Lori, PhD2; Hamed, Melanie, PhD2; Mills, Katherine, PhD2
1University Nijmegen, Nijmegen, Gelderland, Netherlands
2University of Washington, Seattle, Washington, USA

Although PE is an effective psychological treatment for PTSD-patients, some clinicians are hesitant to use PE with comorbid patients because they believe that comorbid conditions may worsen during PE. However, because most PTSD-patients have comorbid psychiatric disorders, it is highly relevant to gain more knowledge about the question: what are the effects of PE on comorbid symptoms and associated symptomatic features? Findings from 18 randomized controlled trials of PE were reviewed that assessed the most common comorbid conditions (major depression, anxiety disorders, substance use disorders, personality disorders, and psychotic disorders) and additional symptomatic features (suicidality, dissociation, negative cognitions, negative emotions, and general health and work/social functioning). We found that comorbid disorders and additional symptomatic features either stay stable during PE or decline along with the PTSD symptoms. Therefore, our conclusion is that among the populations that have been studied to date, there is no reason for excluding PTSD patients from PE due to fear of increases in comorbid conditions or additional symptomatic features.

Affective Processes/Interventions Track
Paper Session
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Galerie 3 – Affective Processes/Interventions Track

The Role of Behavioral and Neural Correlates of Emotional Processing in Predicting Recovery from PTSD
(Bio Med, Affect/Int-Bio/Int-Mil/Vets-Neuro, Adult, M, N/A)

van Roolij, Sanne, PhD1; Kennis, Mitzy, MSc2; Vink, Matthijs, PhD3; Geuze, Elbert, PhD2
1Emory University, Atlanta, Georgia, USA
2Military Mental Health Research/UMC Utrecht, Utrecht, Utrecht, Netherlands
3University Medical Center Utrecht, Utrecht, Utrecht, Netherlands

Trauma-focused therapy (TFT) is the treatment of choice for PTSD, but it is not effective in about 30-50% of patients. The aim of this study is to improve understanding of recovery from PTSD by investigating behavioral and neural aspects of emotional processing in the context of TFT. Two clinical interviews and fMRI scans were collected from 47 war veterans with PTSD (pre- and post-treatment) and 25 healthy war veterans with a 6-8 month interval. Based on post-treatment symptom severity a distinction was made between remitted and persistent patients. Behavioral and fMRI measures of trauma-unrelated emotional processing were compared for the three groups. Pre- and post-treatment analyses revealed more incorrect behavioral responses, and higher dACC and insula responses in persistent patients compared to remitted patients and combat controls at both time points. Moreover, amygdala, dACC and insula activation significantly predicted persistence of symptoms. Remitted patients did not differ from combat controls pre- or post-treatment on any of the measures. This study highlights a pattern of brain activation that could be considered a marker for lack of recovery from PTSD after TFT. Increased dACC, insula and amygdala activation could imply an attentional bias to negative stimuli. This can prevent the processing of safety information, which is essential for successful TFT.

Temporal Dynamics of Emotion in Posttraumatic Stress Disorder Symptom Clusters in a Clinical Sample
(Res Meth, Affect/Int-Anx, Adult, I, Industrialized)

Schoenleber, Michelle, PhD; Berghoff, Christopher, MA; Gratz, Kim, PhD; Tull, Matthew, PhD
Evidence supports the importance of emotion lability to PTSD (Santangelo et al., 2014), but research has not examined how different emotions shift together over time. Thus, temporal dynamics of emotion were examined in PTSD at the level of individual emotions (Anxiety, Anger, and Self-Conscious Emotion) and mixed emotions. Patients in residential substance use treatment with Criterion A events (N=158; 52% female; M age=34.3) completed a diagnostic interview to assess PTSD and severity of symptom clusters. State emotion ratings, made 10 times during lab sessions with multiple emotion-inducing tasks, were used to assess change at an individual-level (lability) and mixed-level (synchrony). Participants with (vs. without) current PTSD reported higher Anger and Anxiety labilities (t=2.76, p<.01) and Anger-Anxiety synchrony (t=2.34, p=.05). Hierarchical multiple regressions were used to examine the interplay between lability and synchrony in relation to PTSD symptom severity by cluster. Results revealed several significant interactions; Anger-Anxiety synchrony was positively associated with both Reexperiencing and Avoidance symptoms when Anger lability was high (b=.40, p=.05) but not low. In addition, Anger-Anxiety synchrony was positively associated with Numbing symptoms when Anxiety lability was low (b=-.34, p=.05) but negatively associated when lability was high (b=-.34, p=.05).

The Nomological Network of a Behavioral Distress Tolerance Task in Trauma-Exposed Combat Veterans

(Assess Dx, Affect/Int-Res Meth-Mil/Vets, Adult, M, Industrialized)

Brown, Ruth, PhD1; Mortensen, Johnnie, Undergraduate2; Hawn, Sage, BS3; McDonald, Scott, PhD4; Thomas, Suzanne, PhD5; Amstadter, Ruth, PhD6

1Virginia Institute for Psychiatric and Behavioral Genetics, VCÚ, Richmond, Virginia, USA
2Virginia Commonwealth University, Richmond, Virginia, USA
3Virginia Institute for Psychiatric and Behavioral Genetics, Richmond, Virginia, USA
4Hunter Holmes McGuire VA Medical Center, Richmond, Virginia, USA
5Medical University of South Carolina, Charleston, South Carolina, USA

Behavioral and self-report measures of distress tolerance have not always yielded expected concurrent validity raising questions about the validity of the measures, the utility of the concept, and the relative contribution of DT in the processes underlying risk and resilience following trauma exposure. This paper presents the results of a series of Multitrait-Multimethod analyses to explore the nomological network of a behavioral DT task, the computerized Mirror Tracing Task (MIRROR), compared to self-report measures including the Distress Tolerance Scale, Impulsive Behavior Scale, 10-Item Connor-Davidson Resilience Scale, and the COPE in a sample of trauma-exposed combat veterans (n=182) from an ongoing study (PI: Amstadter). Finally, a series of multiple regressions were conducted to determine the relative contribution of the MIRROR and self-report measures to the prediction of posttraumatic stress disorder (PTSD) and depression. Preliminary results suggest that perseverance on the MIRROR shows differential relationships with the specific subscales of the self-report measures (e.g. DTS Tolerance subscale r = .19, p<.01) and is associated with PTSD however, effect sizes are small with only 3% shared variance. Results suggest that there is little generalization of DT across measures and DT may be highly context-specific.

Elementary School Classroom Stress Reduction Using a Trauma-Informed Narrative Intervention

(Yale University School of Medicine, New Haven, Connecticut, USA)

Johnstone, David, PhD; Lubin, Hadar, MD

This study evaluated the effect of a manualized, trauma-informed intervention in public elementary schools. 2800 Kindergarten-8th grade children in 7 schools were given a trauma-informed narrative intervention on a weekly basis throughout the school year over a two year time period. Disruptive classroom behaviors diminished on average 42% in the first year, and 68% by the second year, in comparison to students in control schools and the district at large. Teachers reported significant improvements in students’ concentration, and decreases in physical fighting and suspensions. The intervention is based on a List of Adverse Childhood Events that is posted in each classroom and forms the basis for weekly discussions. A fictional person, named Miss Kendra, who has experienced stressful experiences herself, is presented as the author of the list. The students are told that they can write personal letters to her about what is worrying them. Then Miss Kendra (counselors) writes back to each child, who receives their letter within a few days. Over 13,000 letters have been received to date. The program met with significant challenges in gaining acceptance by the school system, and in managing the issues related to mandatory reporting of child abuse when it was disclosed in the letters. Rates of reported abuse, other outcome data, and how challenges were met will be presented.
Assessment/Diagnosis Paper Session
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Galerie 4 – Assessment/ Diagnosis Track

Modeling the Trajectories of Civilian and Military Trauma Symptoms in a Representative Sample of U.S. National Guard and Reserve: A Latent Class Growth Modeling Approach
(Assess Dx, Assess Dx-Health-Mil/Vets, Other, M, Industrialized)

Fink, David, PhD Student; Lowe, Sarah, PhD; Ursano, Robert, MD; Fullerton, Carol, PhD; Gifford, Robert, PhD; Galea, Sandro, MD, DrPH
1Columbia University, Mailman School of Public Health, New York, New York, USA
2Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA
3Uniformed Services, University of the Health Sciences, Bethesda, Maryland, USA
4Boston University, Boston, Massachusetts, USA

Trajectory analysis has been increasingly used in trauma research to identify homogenous symptom patterns in a larger heterogeneous population. However, the extent to which the type of trauma experienced affects PTSD symptom trajectories, both in regards to the shape of the trajectories and proportion of survivors falling into each trajectory, remains unclear. Therefore, we aimed to document PTSD symptom trajectories in a representative sample of US National Guard and Reserve (RNG) (N=2002) from 2008 to 2012. We chose this population because of their likelihood to experience both military and civilian traumas, which can vary greatly in expectedness, chronicity, type of threat, and time during life course. We employed latent class growth analysis to model trajectories in respondents who completed two or more study waves and had either a potentially traumatic military event, civilian event, or both. For both military and civilian trauma, we found evidence of 3 trajectories that were similar in shape and frequency: resistant (75% and 79%, respectively), chronic subthreshold (20% and 16%, respectively), and chronic PTSD (5% for both). Taken together, the results suggest that PTSD symptom trajectories are similar for RNG service members across military and civilian trauma.

Gender Differences in the Long-Term Associations between PTSD and Depression among Detroit Residents
(Assess Dx, Comm/Vio-Depr-Social, Adult, M, Industrialized)

Horesh, Danny, PhD; Lowe, Sarah, PhD; Galea, Sandro, MD, PhD; Uddin, Monica, PhD; Koenen, Karestan, PhD
1Bar-Ilan University, Ramat Gan, Israel
2Columbia University, Mailman School of Public Health, New York, New York, USA
3University of Illinois, Champaign, Illinois, USA
4Columbia University School of Public Health, New York, New York, USA

Objective: To examine the long-term associations between depression and PTSD symptom clusters (intrusion, avoidance, hyperarousal), and the moderating role of gender in these associations. Methods: 942 residents of Detroit neighborhoods were interviewed at 3 waves, 1 year apart. At each wave, they were assessed for PTSD, depression, trauma exposure, and stressful life events. Results: participants reported very high rates of lifetime trauma exposure, and a heavy burden of PTSD and depression across time. Females reported higher levels of depression and PTSD across time, as well as a more moderate trend of recovery from both disorders compared to males. A cross-lagged analysis revealed a reciprocal "fueling" process (i.e., bidirectional associations) between both disorders across time. However, differential associations were found between depression and individual PTSD clusters. The paths between early depression and later PTSD clusters were generally weaker for males than for females. An opposite gender-related trend was observed for the paths between early PTSD clusters and later depression. Conclusions: Living in a stressful urban environment may carry severe psychological implications. Across time, PTSD symptom clusters and depression may be driving each other in a mutual fashion. Gender differences in PTSD-depression comorbidity may carry important clinical implications.

Are Posttraumatic Stress Disorder and Depression Independent Sequelae of Trauma? Results from an Epidemiological Sample of Chinese Earthquake Survivors Using Latent Profile Analysis
(Assess Dx, Depr-Health-Nat/Dis, Adult, M, E Asia & Pac)

Cao, Xing, MA, PhD Student; Wang, Li, PhD; Cao, Chengqi, PhD Student; Zhang, Jianxin, PhD
Key Laboratory of Mental Health, Institute of Psychology, Chinese Academy of Sciences, Beijing, China

Posttraumatic stress disorder (PTSD) and depression are highly comorbid in association with serious clinical consequences. Nevertheless, to date, no study using latent class or latent profile analysis (LCA/LPA) has examined patterns of co-occurring PTSD and depression symptoms among natural disaster survivors, nor has the distinctiveness of DSM-5 PTSD and depression symptoms been clarified in the aftermath of trauma. The present study filled these gaps by using LPA to examine self-reported PTSD and depression symptoms in an epidemiological sample of 1196 Chinese earthquake survivors. A 4-class solution characterized by low symptoms (53.9%), predominantly depression (18.2%), predominantly PTSD (18.9%) and combined PTSD-depression (9.0%) patterns fit the data best. Demographic characteristics and earthquake-related exposures were specifically or consistently associated with the non-parallel profiles varying in physical health impairment. The distinctiveness of DSM-5 PTSD and depression symptoms following an earthquake suggests that PTSD and depression are independent sequelae of trauma.
rather than a manifestation of a single form of psychopathology. The current findings highlight the need for identifications of natural disaster survivors at high risk for PTSD and/or depression, and interventions individually tailored to one’s symptom presentations.

Acute Post-Trauma Psychological Assessments and Subsequent Pathology: The Potential for Broad Clinical Intervention beyond Treatment for PTSD (Prevent, Acute-Assess Dx-Clin Res-Health, Lifespan, M, Global)

Garfin, Dana Rose, PhD: Chan, Michelle, BS; Holman, E. Alison, PhD
University of California, Irvine, Irvine, California, USA

Acute Stress Disorder (ASD) has limited power to predict Posttraumatic Stress Disorder (PTSD). Yet acute (< 1 month) assessments of post-trauma psychological responses may predict and help identify individuals at risk for other long-term health-related outcomes. We conducted a systematic review to examine this possibility. Electronic databases (e.g., PubMed, PsychInfo, CINAHL, Web of Science, and SCOPUS) were searched for studies with an acute post-trauma psychological assessment and at least one follow-up assessment of a physical or mental health outcome, other than PTSD. 665 articles were identified; 35 met inclusion criteria. Twenty examined physical health outcomes and 22 examined non-PTSD mental health outcomes. In both short- (< 1 year) and long- (≥ 1 year) term follow-ups, acute post-trauma responses were associated with negative outcomes including more pain, disability, healthcare utilization, cardiovascular ailments, depression, anxiety, and cumulative psychiatric disorders, and poorer post-operative recovery and quality of life. Overall, methodologically rigorous longitudinal studies support the utility of measuring acute post-trauma psychological responses. High distress in the immediate aftermath of trauma is an important marker for potential long-term pathology and may indicate need for early post-trauma interventions.

Symposium
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Galerie 5 – Other Interventions Track


Norman, Sonya, PhD1; Schnurr, Paula, PhD2
1National Center for PTSD, San Diego, California, USA
2National Center for PTSD, Department of Veterans Affairs, White River Junction, Vermont, USA

Research on how biological mechanisms influence individual responses to psychotherapy for PTSD is critical to improving treatment outcomes. However, such research is still in its infancy and many challenges (e.g., logistic, budgetary) exist to integrating biomarker measurement into psychotherapy trials. Three ongoing psychotherapy efficacy trials that are each measuring at least one biomarker as a mediator or moderator of change will be described. The procedures by which the trials are incorporating biological measures into the study, challenges, and strategies to overcome challenges will be explained. The first presenter will describe several studies using psychophysiological startle as an objective marker of PTSD severity and response to treatment and as a target engagement to measure drug + psychotherapy response. The second study compares two first-line PTSD treatments (Prolonged Exposure and sertraline) and their combination and examines emotion processing and regulation in IMRI, HPA axis function, and genetics and genomics across treatment. The third study compares two psychotherapies for concurrent PTSD and alcohol use disorder and includes measures of sleep, neurobiological, and genetic biomarkers. The discussant will highlight challenges and solutions across studies and discuss future directions in biomarker measurement in psychotherapy efficacy research.

Maximizing the Utility of a Single Site Randomized Controlled Psychotherapy Trial (Clin Res, Res Meth-Sleep-Genetic-Neuro, Adult, M, Industrialized)

Norman, Sonya, PhD1; Haller, Moira, PhD2; Spadoni, Andrea, PhD2; Drummond, Sean, PhD4; Ristbrough, Victoria, PhD2; Hamblen, Jessica, PhD2; Trim, Ryan, PhD2; Blanes, Erika, MPH3
1National Center for PTSD, San Diego, California, USA
2VA San Diego Healthcare System, San Diego, California, USA
3San Diego VA/University of San Diego, San Diego, California, USA
4VA San Diego Healthcare System / UCSD, San Diego, California, USA
This talk describes how a randomized controlled trial (RCT) comparing two psychotherapies for the treatment of concurrent PTSD and alcohol use disorder (AUD) is using a model of collaborative, affiliated grants to make it possible to include measures of select biomarkers as predictors and mediators of treatment outcome. Funding for the RCT was secured first, then the separate investigators received grants to add biomarker measures to the RCT. The affiliated grants are examining whether sleep disruption (through polysomnography and actigraphy), neural substrates of aversive anticipation and alcohol cue reactivity (through fMRI) and the presence of a specific gene (COMT) are associated with PTSD and/or AUD recovery. Challenges to this collaborative approach include long consenting procedures (over an hour) and high participant measurement burden. The lag in funding between the primary RCT and the affiliated grants reduced the number of participants that can be recruited into the affiliated studies. A bias in the data would affect multiple studies. Strengths include efficiency in regard to recruitment and retention (e.g., participant’s data is used for multiple studies) and resources (pooled resources allow for extra therapist time on the primary study). A notable strength is the potential maximization of the knowledge to be gained from a single site RCT.

Using Psychophysiological Startle as an Objective Marker of PTSD Severity and Response to Treatment (Assess Dx, Bio Med-Mil/Vets, Adult, M, N/A)

Rothenberg, Barbara, PhD, ABPP; Gerardi, Maryrose, PhD; Jovanovic, Tanja, PhD; Norrholm, Seth, PhD; Ressler, Kerry, MD, PhD

1Emory University School of Medicine, Atlanta, Georgia, USA
2Atlanta VAMC/Emory University, Decatur, Georgia, USA

This presentation will begin with results from an RCT from an NIMH-sponsored study with Virtual Reality Exposure Therapy (VRE) combined with either 50 mg d-Cycloserine (DCS), pill placebo, or 0.25 mg alprazolam (Xanax) for Iraq Veterans (n = 156) with PTSD. Assessments include interviews, self-report measures, salivary cortisol, and psychophysiological assessment. The psychophysiological indices included measurement of the acoustic startle response. Pre-Virtual Reality (VR) cortisol levels did not differ between conditions (p=0.59). A RM-ANOVA of cortisol change scores (from pre to 15 min post-VR) revealed a significant time x condition interaction, F(4,72)=2.58, p<.05, with the change score decreasing more in the DCS group post-treatment compared to the alprazolam and placebo groups (both p's<0.05). Treatment had a significant effect on the startle response during the VR scenes only in the DCS group, F(2,12)=6.24, p<.01. After correcting for group differences in startle response at baseline, the DCS group again showed a significant percent change from baseline with time, F(2,12)=51.65, p<.001, while the other groups did not. We will present using psychophysiological startle to assess the target engagement to determine the most effective dose of medication to facilitate exposure therapy and the use of psychophysiological assessment in the emergency room to predict later PTSD.


Rauch, Sheila, PhD, ABPP; Venners, Margaret, MPH; MSW; Tuerk, Peter, PhD; Simon, Naomi, MD; King, Anthony, PhD; Libenzon, Israel, MD; Kim, Myra, ScD; Phan, Luan, MD; Allard, Carolyn, PhD; Norman, Sonya, PhD

1University of Michigan / VA Healthcare System, Ann Arbor, Michigan, USA
2US Department of Veteran Affairs, Ann Arbor, Michigan, USA
3Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA
4Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
5VA Ann Arbor Healthcare System/ University of Michigan, Ann Arbor, Michigan, USA
6University of Michigan, Ann Arbor, Michigan, USA
7University of Illinois Chicago, Chicago, Illinois, USA
8VA San Diego Healthcare System / UCSD, San Diego, California, USA
9National Center for PTSD, San Diego, California, USA

This talk covers a large, multi-site PTSD treatment study that examines effectiveness of proven PTSD treatments (Prolonged Exposure (PE), sertraline, and their combination) and biomarkers related to predictors of response and mechanisms of change. Through submission to a DOD Broad Agency Announcement, funding was secured at a level to examine effectiveness and biomarkers not possible through standard randomized trial funding mechanisms. A direct head to head comparison of these proven treatments in military service members will provide outcomes that are directly relevant to their care. Specifically, the strengths of the study team incorporating sites with expertise in PTSD psychotherapy and medication study conduct will provide the highest quality data on how these treatments work in this population. Further, clinical follow-up for 52 weeks from randomization will provide additional information on maintenance of gains and function that are of key importance. Biological assessment of emotional processing and regulation in fMRI, HPA axis, genetics, and genomics are conducted with all participants across the study to examine factors predictive of response and factors related to change over all treatments and for specific intervention conditions. Discussion will focus on design selection factors involved in design choices (i.e., cost and reliability of data).
A growth edge for research on traumatic stress in adolescence concerns the need to better fine-tune our understanding of the underlying processes accounting for the well-replicated finding that childhood trauma is associated with adolescent delinquency. In particular, research is needed that identifies the variables that moderate and mediate outcomes associated with trauma among youth at risk or involved in the justice system. To this end, the present symposium brings together four papers from independent laboratories involving diverse samples of adolescents in order to shed light on mechanisms that are associated with delinquent outcomes in the aftermath of trauma. The first paper differentiates specific facets of emotion dysregulation that mediate the association between trauma exposure and posttraumatic stress symptoms in a sample of traumatized youth. The second paper examines the associations among trauma, gender, emotion regulation, and psychophysiological reactivity amongst juvenile justice-involved adolescents. The third paper investigates the role of trauma-related cognitions, including pessimism and acquired callousness, as moderators of the link between trauma and delinquency. The fourth paper examines sensitivity and specificity of measures for identifying the large proportion of detained youth who have experienced poly-victimization.

The Impact of Interpersonal Trauma Exposure on Emotion Dysregulation Difficulties and Posttraumatic Stress Symptoms among Detained Youth
(Prevent, Aggress-Comm/Vio-Dev/Int-DV, Child/Adol, M, Industrialized)

Bennett, Diana, MS, PhD Student; Chaplo, Shannon, Doctoral Student; Modrowski, Crosby, BA; Kerig, Patricia, PhD
University of Utah, Salt Lake City, Utah, USA

Previous research has demonstrated that childhood trauma is associated with emotion dysregulation (ED), and that specific types of trauma exposure (TE) are related to specific posttraumatic stress symptoms (PTSS). However, no studies to date have investigated whether emotion dysregulation (ED) could help explain the association between TE and PTSS. This study investigated the association between TE (interpersonal versus non-interpersonal), 6 facets of ED, and PTSS. Participants included 757 detained youth (200 girls) aged 12-18 (M=16.1; SD=1.3). Analyses were performed in MPlus using a structural equation modeling approach. To test for mediation, direct pathways were specified between TE and the ED subscales, as well as between the ED subscales and PTSS clusters, with indirect effects specified between TE and PTSS via ED. Significant direct effects were observed for interpersonal but not non-interpersonal TE. Similarly, indirect effects were found consistent with the hypothesis that ED dimensions of lack of emotional clarity, non-acceptance of emotional responses, limited access to emotion regulation strategies, and difficulties engaging in goal directed behavior acted as mediators of the association between interpersonal trauma exposure and PTSD, highlighting the role that emotion dysregulation plays between interpersonal trauma exposure and posttraumatic symptoms.

Gender Differences in Relations among PTSD Symptoms, Respiratory Sinus Arrhythmia and Emotion Regulation Difficulties

McGee, Andrew, BS; Bennett, Diana, MS, PhD Student; Kerig, Patricia, PhD; Chaplo, Shannon, Doctoral Student
University of Utah, Salt Lake City, Utah, USA

Research has confirmed associations between posttraumatic stress disorder (PTSD) and both emotion dysregulation and psychophysiology. Respiratory sinus arrhythmia (RSA) in particular has been established as an important marker of arousal regulatory ability, and dysregulated emotion in traumatized populations has been shown to have links to negative mental health outcomes, poor trauma recovery, and further victimization. However, little of this research to date has included traumatized youth, nor has attention been paid to potential gender differences in the ways that specific facets of emotion dysregulation might mediate the associations between trauma exposure and RSA. To address these questions, the present study included 135 youth (34 girls, 101 boys; Mage = 15.98, SD = 1.29) recruited from a juvenile detention center. Youth provided self-reports of PTSD symptoms on the PTSD-R1 and emotion dysregulation on the Difficulties in Emotion Regulation Scale (DERS). RSA was recorded before, during, and after a 3-minute emotion-eliciting video. Bootstrapped moderated mediation analyses demonstrated that the DERS subscale of lack of emotional clarity statistically mediated the impact of PTSD symptomology on RSA change in boys only. These findings indicate the need to further examine gender differences in biomarkers of emotional dysregulation post-trauma.
Youth Trauma Exposure and Delinquent Behaviors: The Role of Cognitive Moderators in Combination with Callousness
(Clin Res, Comm/Vio-Dev/Int, Child/Adol, M, Industrialized)

Allwood, Maureen, PhD
John Jay College, CUNY, New York, New York, USA

Trauma-related cognitions, such as pessimism about one’s future, have been associated with delinquent behaviors among youth. There is also mounting evidence that similar to trauma-related cognitions, for some youth, callousness and unemotional traits, which we typically associate with delinquency, may emerge secondary to stressful and traumatic life experiences (Kimonis et al., 2012). Given the joint associations with trauma exposure and with delinquent behaviors, callousness and pessimism about one’s future may indeed be associated through direct or indirect paths. It is particularly important to address whether these trait-like characteristics, that are associated with trauma exposure, together or separately, moderate the established associations between trauma exposure and delinquency. The current study hypothesized that the trauma exposure—delinquent behaviors association would be moderated by both callousness and pessimism about the future, such that the magnitude of the association increases in the context of high callousness and high pessimism (separately and combined). Participants in this ongoing study were over 150 racially/ethnically diverse community youth (ages 12 to 18). Findings indicate that both callousness and pessimism are associated with aggression and more general delinquent behaviors. Hierarchical regression analyses will be conducted.

Testing Decision Rules for the MAYSI-2 TE Scale to Identify Poly-victimization in Justice-Involved Youth
(Assess Dx, Assess Dx-Clinical Practice, Child/Adol, M, N/A)

Cruise, Keith, PhD1; Hinz, Holly, MA, PhD Student2; Marcin, Genna, Undergraduate3; Ford, Julian, PhD4
1Fordham University, New York, New York, USA
2Fordham University, Bronx, New York, USA
3University of Connecticut Health Center, Farmington, Connecticut, USA

The Massachusetts Youth Screening Instrument (MAYSI-2; Grisso & Barnum, 2006) is commonly used screening measure for mental health concerns in justice-involved youth. There is evidence of sound psychometrics and clinical utility of the standard MAYSI-2 clinical in juvenile justice samples but less evidence for the validity of the MAYSI-2 Traumatic Experiences (TE) scale with question as to how this scale can best be used to screen for trauma exposure and PTSD symptoms. This study further tested utility of the TE scale by investigating it’s utility in identifying detained youth classified as poly-victims (Finkelhor, Ormrod, & Turner, 2007). Multinomial logistic regressions indicated that the TE scale significantly predicted poly-victimization for females (b = .60, p < .001). For males, both the Alcohol/Drug Use scale (b = .22, p < .01), and the TE scale (b = .34, p < .01) predicted poly-victimization. ROC analyses were significant for the TE scale in identifying the polyvictimized group relative to a low adversity group with an AUC = .744, SE = .041, p < .05 for females and AUC = .664, SE = .046, p < .05 for males. Cut scores and screening decision rules based on single and multiple MAYSI-2 scales are discussed.

Symposium
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Acadia – Assessment and Diagnosis Track

Comparing and contrasting DSM-5 and ICD-11 PTSD, and ICD-11 Complex PTSD
(Assess Dx, Clinical Practice-Complex, Adult, M, Industrialized)

Bisson, Jonathan, MD
Cardiff University School of Medicine, Cardiff, Wales, United Kingdom

The divergence of the DSM-5 criteria for PTSD and the proposed ICD-11 criteria for PTSD, along with the introduction of Complex PTSD as an ICD-11 diagnosis, are likely to have a major impact on clinical and research approaches to detection, prevention and treatment. It is important that evidence is gathered to help us understand the implications of the differences between these three diagnoses and plan for them when ICD-11 replaces ICD-10 in 2017. The four presentations in this symposium consider PTSD and Complex PTSSD in studies of four different populations; one of a clinical population, one of a population of adult survivors of institutional child-abuse, one of a research cohort of individuals who describe symptoms of PTSD, and on of a US military population. They shed light on the magnitude of the differences between DSM-5 PTSD and ICD-11 PTSD and complex PTSD. These and the impact of demographic and other factors on the presence of the three overlapping but different disorders will be discussed.

PTSD = PTSD?
(Assess Dx, Assess Dx-Chronic-Complex, Older, M, Industrialized)

Lueger-Schuster, Brigitte, PhD; Knefel, Matthias, MS, PhD Student
University of Vienna, Vienna, Vienna, Austria

There are broad differences in conceptualization of posttraumatic stress disorder (PTSD) in DSM-5 and the proposal of ICD-11. It is unclear how this will affect the concordance of PTSD according to those classification systems, and if gender related differences will occur. In a sample of adult survivors of institutional child-abuse (preliminary-N = 106, 52.8% men), we used the PCL-5, the ICD-11 PTSD and CPTSD Questionnaire (research version), and the SCID (DSM-IV) to assess PTSD. Preliminary results
suggest that DSM-5 classifies a largely different population than ICD-11 with PTSD: 18.9% fulfill criteria for DSM-5 PTSD, while 45.7% fulfill criteria for ICD-11 PTSD (or Complex PTSD). Only one individual (0.9%) with DSM-5 PTSD has no ICD-11 PTSD, 40 individuals (37.7%) with ICD-11 PTSD have no DSM-5 PTSD. All compared PTSD diagnoses (DSM-IV, DSM-5, ICD-11) overlap limited. Women show higher rates of DSM-5 PTSD and ICD-11 PTSD; there is no gender difference for ICD-11 Complex PTSD. Both PTSD and complex PTSD presuppose symptomatology of posttraumatic stress disorder (PTSD) and complex PTSD. Both PTSD and complex PTSD presuppose exposure to a traumatic stressor, although the two disorders have distinct but related conceptual symptom frames. We aimed to investigate symptom profiles in patients attending the Rivers Centre for Traumatic Stress, Edinburgh, UK. A case series of participants (n=200) completed measures of childhood and adulthood life events, PTSD, emotional regulation, self-esteem and interpersonal problems. We have hypothesized:
1. A distinct symptom profile between PTSD and complex PTSD as proposed in ICD-11.
2. Sustained exposure to repeated or multiple types of traumatic stressors would be a greater risk factor for complex PTSD than PTSD.
3. Complex PTSD would be associated with more severe functional impairment than PTSD.

Data collection is about to be completed and analysis is ongoing.

A comparison of DSM-5 and ICD-11 PTSD, and ICD-11 Complex PTSD
(Assess Dx, Clinical Practice-Complex, Adult, M, Industrialized)

Bisson, Jonathan, MD1; Roberts, Neil, DPsych(Clin)2
1Cardiff University School of Medicine, Cardiff, Wales, United Kingdom
2Cardiff and Vale University Health Board, Cardiff, United Kingdom

In 2013, DSM-IV was replaced by DSM-5 and in 2017 ICD-10 will be replaced by ICD-11. As a result, the criteria required for a diagnosis of PTSD will be very different for the two classification systems. The all Wales PTSD Registry study collects detailed information from individuals who describe symptoms of PTSD. Everyone is interviewed using the CAPS-5 and a recently developed structured interview to assess the presence and severity of ICD-11 PTSD and Complex PTSD. An analysis of the first 100 individuals recruited found rates of PTSD of 78% for DSM-5 and 68% for ICD-11. Only 54% satisfied the criteria for both systems; 24% had PTSD according to DSM-5 only and 13% according to ICD-11 only. 45% satisfied the criteria for ICD-11 complex PTSD. This presentation will include an analysis of the first 200 individuals recruited and consider the predictive value of demographic and other factors such as social support and the nature of the trauma for DSM-5 and ICD-11 PTSD and Complex PTSD. The implications for PTSD sufferers, clinicians and others of the divergence between the classification systems will be considered.

Comparison of PTSD Criteria Using DSM-5 and ICD-11 in U.S. Soldiers
(Assess Dx, Clinical Practice-Mil/Vets, Adult, M, Industrialized)

Hoge, Charles, MD1; Riviere, Lyndon, PhD1; Wilk, Joshua, PhD2; Forbes, David, PhD2; O’Donnell, Meaghan, PhD2
1Walter Reed Army Institute of Research (WRAIR), Silver Spring, Maryland, USA
2Australian Centre for Posttraumatic Mental Health, University of Melbourne, Carlton, Victoria, Australia

Background. The DSM-5 and ICD-11 committees took very different approaches to the structure of the PTSD definition, with the revised DSM-5 definition expanding to 20 symptoms and the ICD-11 definition simplified to 6 core symptoms. Studies comparing these two definitions have produced conflicting results, with most studies not maintaining independence of scale items or controlling for survey order effects. Methods. The 20 item PCL-5 was compared with the 6 items from the original PCL-S that mapped to ICD-11 in 1,822 infantry soldiers, including 946 who deployed to Iraq or Afghanistan. Soldiers randomly received either of two surveys that were identical except for the order of the two PCL versions. Results. The prevalence of meeting PTSD screening criteria was 12.3% by DSM-5 and 9.5% by ICD-11, with relatively high discordance (kappa=0.58). Among combat-exposed soldiers, the prevalence was 17.5% and 14.6%, respectively (k=0.57). The two definitions showed similar overlap with depression and generalized anxiety, but the ICD-11 definition showed somewhat lower association with functional impairment. Conclusions. Based on independent surveys that controlled for order effects, the ICD-11 definition produced a significantly lower prevalence of PTSD and did not show greater clinical utility compared with the DSM-5 definition. Discordance was high between the two definitions.
Invited Panel
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Salon A-C – Bio-Med/ Genetics Track

What I Have Changed My Mind About and Why
(Practice, Bio Med-Res Meth-Train/Ed/Dis-Theory, N/A, I, Global)

Yehuda, Rachel, PhD1; Spiegel, David, MD2; Southwick, Steven, MD3; Davis, Lori, MD4; Neylan, Thomas, MD5; Krystal, John, MD6
1J. J. Peters Veterans Affairs Medical Center; Mount Sinai School of Medicine, Bronx, New York, USA
2Stanford University School of Medicine, Stanford, California, USA
3National Center for PTSD Clinical Neurosciences Division/Yale University Dept. of Psychiatry, West Haven, Connecticut, USA
4Tuscaloosa VA, Tuscaloosa, Alabama, USA
5San Francisco VA Medical Center and UCSF, San Francisco, California, USA
6Yale School of Medicine, New Haven, Connecticut, USA

Are we open to changing our views about trauma and PTSD, or do we look to reify established ideas that have become comfortable and convenient? If we are truly learning from our patients, new information should challenge older ideas. Our field was born from grass roots activism, and nurtured by political and social idealism to acknowledge the plight of victims of violence and tragedy. Has what we have learned over the years led to editing of initial formulations and treatment of trauma survivors? In this panel, we invite five outstanding clinician-scholars with perspective and experience to exchange thoughts about what views they have changed and why, based on clinical or research experience. Dr. David Spiegel has changed his mind about which patients or problems might improve with therapy; Dr. Steven Southwick has changed his mind about the role of processing trauma in therapy; Dr. Lori Davis has changed her mind about the centrality of pharmacotherapy in PTSD treatment; Dr. Thomas Neylan has changed his mind about the importance of fear conditioning and stress circuitry in the neurobiology of PTSD; and Dr. John Krystal has changed his mind about how to obtain the most accurate clinical information from patients. Dr. Rachel Yehuda will be moderating this session ensuring that the presenters will discuss seminal and game-changing, rather than modest, view changes.

Workshop Presentation
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Salon D – Public Health Track

Creating a Trauma-Informed Public Health System: Transforming Trauma and Promoting Resilience through Workforce Development
(Train/Ed/Dis, Commun-Complex-Pub Health-Social, Other, M, Industrialized)

Dorado, Joyce, PhD1; Epstein, Kenneth, PhD, LCSW2
1UCSF-San Francisco General Hospital, San Francisco, California, USA
2San Francisco Department of Public Health, San Francisco, California, USA

Organizations, like people, are susceptible to trauma’s effects, including hyperarousal and reactivity, and loss of safety and cohesion (Bloom, 2013). A San Francisco Dept. of Public Health (SFDPH) Director and the UCSF Healthy Environments and Response to Trauma in Schools (HEARTS) Director will deliver a workshop on the SFDPH Trauma-Informed Systems (TIS) Initiative, an SFDPH/UCSF partnership to make SFDPH a trauma-informed, safe and supportive work environment and system of care. The TIS Initiative is organized around 6 Core Principles built upon TIS work nationally (e.g., SAMHSA, 2014; Thrive, 2012); includes a mandatory training for all 9000 DPH employees that creates shared language and understanding about how trauma affects health, relationships, and systems; and provides practical tools. Additionally, grounded in implementation science, the TIS initiative involves structures that support and sustain change: embedded Champions Learning Communities; a Train the Trainer program; alignment and collaboration across other public systems; focus on leadership; and continuous evaluation. We will present curriculum highlights with activities and handouts, lessons learned, and program evaluation data. We will also discuss the creation of an SFDPH-led, SAMSHA-funded regional coordinating center for TIS that includes Children, Youth & Family Systems of Care from 7 Bay Area counties.
Symposium
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Salon E – Military Track

Help Seeking for Mental Health Problems in Military and Veteran Personnel
(Prevent, QoL-Prevent-Mil/Vets, Adult, M, Industrialized)

Greenberg, Neil, MD, MsC
King’s College London, London, United Kingdom

Military personnel encounter a range of highly challenging stressors during their time in active duty. However, there is a wealth of evidence that help-seeking behaviours within this group are less than ideal and the majority of personnel who suffer with mental health difficulties either do not seek help for them or delay doing so for a considerable time period during which time they function poorly and may develop other co-morbid disorders. This symposium will explore this topic with data presented from the UK and Canada.

Help seeking, Stigma and Leadership in the UK Armed Forces
(Prevent, Commun-Prevent-Mil/Vets, Adult, M, Industrialized)

Greenberg, Neil, MD, MsC
King’s College London, London, United Kingdom

Approximately 60% of military personnel, who experience mental health problems, do not seek help, yet many of them could benefit from professional treatment. Across military studies, one of the most frequently reported barriers to help-seeking for mental health problems are concerns about stigma. It is however less clear how stigma influences mental health service utilisation. This presentation will synthesise a series of novel research studies on stigma, focusing on those in the military with mental health problems. The studies show that reported stigma increases with the onset of new mental health problems and decreases as the disorders resolve. Military personnel who report high levels of stigma in the context of poor mental health status appear to be especially likely to fail to seek help. Additionally our data show that perceptions of leadership are positively correlated with help-seeking behaviours. Taken together these studies suggest that a stigma reduction programmes should aim to both influence leadership attitudes as well as focusing on individuals who are at increased risk of developing post traumatic mental health difficulties.

Development of an Optimal Integrated Care Pathway for Veterans Discharged from the Armed Forces
(Commun, Assess Dx-Commun-Complex-Mil/Vets, Adult, M, Industrialized)

Kitchiner, Neil, PhD
Bisson, Jonathan, MD
1University Hospital of Wales, Cardiff, United Kingdom
2Cardiff University School of Medicine, Cardiff, Wales, United Kingdom

Background: There is a lack of evidence to manage veterans with service related mental health problems. This research aimed to develop an optimally effective, feasible, and acceptable integrated care pathway. Methods: A prototype Integrated Care Pathway was developed through an initial modelling phase. Systematic reviews informed a portfolio of information for key stakeholders to discuss in a series of focus groups and semi-structured interviews. They included sixteen mental health professionals with expertise in the fields of mental health provision for military personnel, and six veterans with a history of mental ill. Data were analysed through Inductive Thematic Analysis and used to inform the content, delivery, and guidance of an Integrated Care Pathway. The prototype was piloted with 20 veterans in two pilot studies, and refined on the basis of their quantitative and qualitative feedback. Results: The final Integrated Care Pathway was agreed with additional guidance notes. It included three pathways covering referral, intervention and management of veterans. Qualitative and quantitative results supported its efficacy in terms of reducing mental health symptoms and its acceptability to veterans. Conclusions: A specific veteran ICP shows promise as an effective and acceptable way of treating veterans with service related mental health problems.

Predictors of Long-Term Treatment Outcome in Combat and Peacekeeping Veterans with Military-Related PTSD
(Clin Res, Clinical Practice-Mil/Vets, Adult, M, Industrialized)

Richardson, Don, MD
Contractor, Atake, MA
Armour, Cherie, PhD
St. Cyr, Kate, MSc
Elhai, Jon, PhD
Sareen, Jitender, MD, FRCPC
1University of Western Ontario, Depts of Psychiatry and Psychology, London, Ontario, Canada
2University of Toledo, Toledo, Ohio, USA
3University of Ulster, Coleraine, Northern Ireland, United Kingdom
4University of Western Ontario, London, Ontario, Canada
5University of Manitoba, Winnipeg, Manitoba, Canada

Posttraumatic stress disorder (PTSD) is a common psychiatric condition associated with military deployment. This study examined the predictors of long-term treatment outcomes in a cohort of 151 treatment seeking veterans, with military related PTSD. The diagnosis of PTSD was made using the Clinician-Administered PTSD Scale. As part of “treatment-as-usual,” all patients complete at intake and at each follow-up appointment, the PTSD Checklist-Military Version, Beck Depression Inventory, and the Short Form Health Survey (SF-36 or SF-12). All patients received psychoeducation about PTSD and combined pharmacotherapy and psychotherapy. Analyses
demonstrated a significant and progressive improvement in PTSD severity over the two-year period [Yuan-Bentler χ² (40, N = 117) = 221.25, p < .001]. We found that comorbid depressive symptom severity acted as a significant predictor of PTSD symptom decline (β = -.44, SE = .15, p = .004). However, neither alcohol misuse severity nor the number of years with PTSD symptoms (chronicity) were significant predictors of treatment response. This study highlights the importance of treating comorbid symptoms of depression aggressively in veterans with military related PTSD and that significant symptom reduction, including loss of probable PTSD diagnosis, are possible in an outpatient setting for veterans with chronic military-related PTSD.

Symposium
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Salon F-H – Neuro Track

Advances in Applied Neuroimaging: Using MRI to Diagnose PTSD, Detect Age-Related Structural Abnormalities, Define Fear Conditioning Mechanisms, and Delineate Treatment-driven Neurocircuitry Changes
(Bio Med, Assess Dx-Clin Res-Mil/Vets-Neuro, Adult, A, Industrialized)

Engdahl, Brian, PhD
Brain Sciences Center, Minneapolis VA Medical Center, Minneapolis, Minnesota, USA

Neuroimaging research is improving our ability to diagnose PTSD, is increasing our awareness of PTSD-specific alterations in brain structure, is revealing fear conditioned changes in functional connectivity, and is enhancing our knowledge of PTSD treatment responses. We use functional magnetic resonance imaging (fMRI) with our adult participants, who have survived many types of trauma including combat, rape and other violent crime, childhood abuse, and motor vehicle accidents. The experimental designs use 1) pure resting state scans that diagnose PTSD with high accuracy, 2) scans that reveal PTSD-related hippocampal structural abnormalities that may be accelerated by aging, 3) scans of emotional activation that detect overgeneralized conditioned fear responses (a model of PTSD symptoms) and 4) pre- and post-PTSD therapy scans that can zero in on changes in emotional neurocircuitry that may underlie PTSD symptom improvement (mindfulness-based exposure therapy and a comparison group therapy were contrasted). These neurobiological alterations are essentially miscommunication patterns that define PTSD and mechanisms of development and recovery. They are revealed by this widely available neuroimaging method. Their substantial implications for enhanced understanding of the disorder and improved assessment and treatment will be discussed.

Age Modulates the Effect of PTSD on Hippocampal Subfield Volume

Hayes, Jasmeet, PhD¹; Lafleche, Ginette, PhD²; Verfaellie, Mieke, PhD³
¹VA Boston Health Care System/Boston University, Boston, Massachusetts, USA
²Boston University Medical Center, Boston, Massachusetts, USA
³VA Boston Healthcare System & Boston University School of Medicine, Boston, Massachusetts, USA

PTSD and aging have been separately associated with decreases in hippocampal subfield volume, including the...
dentate gyrus and CA1 fields. However little is known regarding the interaction of these variables on hippocampal subfield volume. Given that the subfields have distinct and specialized functions, there may be specificity as to which subfields are affected most in PTSD, aging, and the interaction. The current study examined the association between PTSD symptom severity in hippocampal subfields including the dentate gyrus/CA4, CA1, CA2/3, as well as total hippocampal volume using Freesurfer’s automated subfield segmentation software. 97 Iraq and Afghanistan War veterans between the ages of 21 and 49 were included in the study. Hierarchical linear regression revealed a significant PTSD symptom severity by age interaction on the right dentate gyrus [ΔF (1,92) = 5.9, P < 0.02, R2 = 0.10] and right CA1 field [ΔF (1,92) = 7.7, P = 0.01, R2 = 0.11], suggesting that PTSD-related abnormalities in specific hippocampal subfields may be accelerated with aging. Furthermore, the results suggest that automated methods may be useful in examining hippocampal subfields in large samples.

Fear Learning Circuitry is Biased Toward Generalization of Fear Associations in Posttraumatic Stress Disorder

Morey, Rajendra, MD
Duke University / Durham VA Medical Center, Durham, North Carolina, USA

Fear conditioning is an established model for investigating PTSD. However, symptom triggers may only vaguely resemble the initial traumatic event. We extended the fear-conditioning model to assess generalization of the conditioned-fear response on fear processing neurocircuitry in PTSD. Veterans with PTSD (n=32) and trauma-controls (n=35) were assessed with fMRI and behavioral/diagnostic instruments. Subjects were fear-conditioned to a low fear-expressing face. Post-conditioning generalization tasks used stimuli that varied along a neutral-to-fearful continuum. PTSD patients had more memory distortion of the fear-conditioned stimulus biased toward the stimulus expressing the highest fear-intensity. Fear generalization in PTSD was biased toward stimuli with higher emotional intensity than the original fear-conditioned stimulus in the fusiform (p<.02), insula (p<.01), calcarine (p<.05), locus coeruleus (p<.04), thalamus (p<.01), and IFG (p=.07). Amygdala-calcarine (p<.01) and amygdala-thalamus (p=.06) functional connectivity increased in PTSD for high-intensity stimuli during generalization, whereas amygdala-vmPFC (p=.04) connectivity increased in controls for low-intensity stimuli, representing safety-learning. Our results provide a putative neurobiological model for fear generalization that contributes to triggering PTSD symptoms by threat cues that resemble the index trauma.

A New Objective PTSD Diagnostic Tool: The Synchronous Neural Interaction (SNI) Test Based on Resting State Functional Magnetic Resonance Imaging (fMRI)
(Assess Dx, Bio Med-Res Meth-Mil/Vets-Neuro, Adult, A, Industrialized)

Georgopoulos, Apostolos, MD, PhD1; James, Lisa, PhD1; Belitskaya-Levy, Ilana, PhD2; Liberson, Israel, MD2; Christova, Peka, PhD1; Lu, Ying, PhD2; Engdahl, Brian, PhD1
1Brain Sciences Center, Minneapolis VAMC, Minneapolis, Minnesota, USA
2VA Palo Alto Health Care System / Stanford University / CSPP - AIF, Palo Alto, California, USA
3University of Michigan, Ann Arbor, Michigan, USA

METHOD: Studies were conducted at the Minneapolis (MN) and Ann Arbor (MI) Veterans Affairs Medical Centers. Healthy veterans (N=21 and 14 for the MN and MI studies, respectively) and veterans with PTSD uncomplicated by other disorders (N=15 and 14 for the MN and MI studies, respectively) completed resting state functional Magnetic Resonance Imaging (fMRI) scans in 3 Tesla scanners. The Least Absolute Shrinkage and Selection Operator (LASSO) penalized regression analysis was used to fit a prediction model for PTSD. To estimate the cross-validated Area Under the Curve (AUC), sensitivity and specificity of the prediction model, the two layers of cross-validation were repeated as many times as sample sizes allowed. RESULTS: Despite the differences in participant characteristics, both studies achieved high prediction accuracy. The cross-validated sensitivity and specificity of the prediction models were 93% and 90%, respectively, in the MN study and 95% and 98%, respectively, in the MI study. The cross-validated estimates of AUC were 96% and 98%, respectively, for MN and MI studies. CONCLUSIONS: This is strong preliminary evidence that resting state fMRI can serve as an objective PTSD diagnostic tool that can shed light on PTSD pathophysiology, serve as an objective marker of treatment response, and therefore improve diagnosis and treatment.

Altered Activity in Dorsal Medial Prefrontal Cortex and Caudate Nucleus in OEF/OIF Combat Veterans following a Mindfulness-based Exposure Therapy
(Bio Med, Bio/Int-Mil/Vets-Neuro, Adult, A, Industrialized)

King, Anthony, PhD1; Block, Stefanie, BS, MS2; Sripada, Rebecca, PhD2; Liberson, Israel, MD2
1VA Ann Arbor Healthcare System/University of Michigan, Ann Arbor, Michigan, USA
2VA Ann Arbor Health Care System/University of Michigan Medical School, Ann Arbor, Michigan, USA
3University of Michigan, Ann Arbor, Michigan, USA

Mindfulness-based approaches have been proposed as useful for combat PTSD. We developed a 16 week PTSD group intervention combining mindfulness and in vivo exposure (“Mindfulness-based Exposure Therapy”, MBET). MBET showed better retention of OEF/OIF PTSD patients than a comparison group therapy, Present Center Group Therapy (PCGT, p<.01), and MBET had clinically
meaningful symptom improvement (CAPS Hedges g = 0.78, p = .005). Here we examine potential neural effects of MBET compared to PCGT using pre- and post-therapy 3T fMRI scans of OEF/OIF PTSD patients (MBET N=12, PCGT N=10). fMRI tasks included resting state functional connectivity (rsFC) and viewing emotional faces, analyzed in flexible repeated measures ANOVA in SPM8. Main effects of Time (i.e. either therapy) included increased caudate/putamen responses to Neutral and Angry faces, and increased rostral ACC activity when viewing Fearful faces. PTSD symptom improvement (regression with CAPS score change) was associated with increased rostral ACC and dmPFC activity in both groups. A Therapy x Time interaction was seen in dorsal medial prefrontal cortex (dmPFC) [3, 53, 1] kE = 72, SVC p < .05 (MBET group increase in activity from pre- to post-therapy). These pre-post therapy neuroimaging results suggest changes in emotional neurocircuitry that may underlie PTSD symptom improvement.

Panel Presentation
Thursday, November 5
1:00 p.m. to 2:15 p.m.
Balcony J-K – Public Health Track

Getting Beyond the Bedside—But Not Forgetting the Bench
(Practice, Clin Res-Clinical Practice-Train/Ed/Dis, N/A, M, Global)

Schnurr, Paula, PhD1; Hanson, Rochelle, PhD2; Zatzick, Douglas, MD2; Kayser, Debra, PhD1; Ruzek, Josef, PhD2
1 National Center for PTSD, Department of Veterans Affairs, White River Junction, Vermont, USA
2 Medical University of South Carolina, Charleston, South Carolina, USA
3 University of Washington/Harborview Medical Center, Seattle, Washington, USA
4 University of Washington, Seattle, Washington, USA
5 VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

Translational research has evolved beyond the "bench-to-bedside" model of moving basic science into clinical care. It is now widely recognized that dissemination and implementation are essential steps in the translational continuum. However, implementation science is still a relatively young field and few investigations have studied implementation in the traumatic stress arena. This panel brings together experts who have been using implementation science to enhance the delivery of new treatments into care across diverse settings and populations: the first has been implementing trauma-focused evidence-based interventions for youth and their families using a community focused approach; the second has adapted evidence-based psychotherapy for use in low and medium resource settings within and outside the US; the third has implemented efforts that target screening and intervention for PTSD and comorbidity in acute care medical settings; the fourth has developed a practice-based implementation network to enhance measurement-based care and the fifth is studying implementation of evidence-based psychotherapy, both in US veterans healthcare settings. The session will focus on the issues confronting implementation of best practices for the care of trauma survivors, including how to bring findings from implementation science back to basic research to create a dynamic implementation cycle.
The Dissociative Subtype of PTSD: Theory, Clinical and Biological Studies, and Treatment Implications

Lanius, Ruth, MD, PhD
University of Western Ontario, London, Ontario, Canada

The DSM-5 includes a Dissociative Subtype of PTSD (D-PTSD) based on the presence of experiences of depersonalization and derealization. In this symposium we describe new findings concerning the clinical, treatment, and theoretical implications of D-PTSD. Dr. Erika Wolf will present a study examining the effect of D-PTSD on treatment response using data from a RCT of Prolonged Exposure in female military veterans and active duty service members. Dr. Cherie Armour will present findings of two latent profile analyses using PTSD and dissociation data from Canadian treatment seeking veterans and Danish survivors of rape and sexual assault. Dr. Brian Marx will present findings from a study following a large cohort of US veterans of the wars in Iraq and Afghanistan, which suggest that military sexual trauma and experiencing positive affect during stressor exposure are related to D-PTSD. Finally, Dr. Frewen will present new data concerning the structure of dissociative experiences in relation to DSM-5 PTSD symptomatology in a large community sample, a neurophenomenological theory of trauma-related dissociation, and resting-state neuroimaging findings differentiating D-PTSD from PTSD without dissociation. Dr. Ruth Lanius, a neuropsychiatrist whose research program has been instrumental in recognizing the D-PTSD subtype in DSM-5, will be our discussant and chair.

The Effect of the Dissociative Subtype of PTSD on Treatment Response

Wolf, Erika, PhD1; Lunney, Carole, MA2; Schnurr, Paula, PhD2
1National Center for PTSD at VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA
2VA National Center for PTSD, Executive Division, White River Junction, Vermont, USA

We examined if the dissociative subtype of PTSD was associated with differential response to PTSD treatment in a sample of 284 female Veterans and active duty service members who participated in a randomized controlled trial of Prolonged Exposure and Present-Centered Therapy for PTSD. Latent growth curve models suggested that the dissociative subtype, defined via latent profile analyses, was associated with a significantly weaker response to both treatments (p = .008) over the course of the 6-month follow-up period as compared to the high PTSD severity group without dissociation. Despite this, participants with the subtype showed near equivalent mean PTSD severity scores by 6-month follow-up as did those with high PTSD symptoms and no dissociation. The groups did not differ from one another in treatment dose or treatment dropout. Further, dissociative symptoms declined markedly in response to both treatments (p < .001). While the dissociative subtype was associated with weaker treatment efficacy, the magnitude and clinical significance of this effect was quite modest and individuals with the subtype demonstrated significant improvement in both PTSD and dissociative symptoms. Findings run counter to common clinical perceptions and provide support for the use of exposure therapy in individuals with the dissociative subtype of PTSD.

Assessing the Dissociative PTSD Subtype and Associated Predictors in Two Independent Samples of Canadian Veterans and Danish Rape and Sexual Assault Survivors

Armour, Cherie, PhD1; Karstoft, Karen-Ing, PhD, Cpsych2; Richardson, Don, MD3; Eklit, Ask, MSc4
1University of Ulster, Coleraine, Northern Ireland, United Kingdom
2Research and Knowledge Center, The Danish Veteran Center, Ringsted, Zealand, Denmark
3University of Western Ontario, Depts of Psychiatry and Psychology, London, Ontario, Canada
4University of Southern Denmark, Odense, Denmark

The DSM-5 currently includes a dissociative-PTSD subtype. Several studies have confirmed this subtype in both Veteran and civilian samples. Studies have begun to assess specific factors which differentiate between dissociative vs. non-dissociative PTSD. This presentation will discuss the dissociative-PTSD subtype using data from Danish survivors of sexual assault and rape (N = 351; 100% female) and treatment seeking Canadian veterans (N=432; 94% male). Utilizing Latent Profile Analyses we discovered a discrete group of individuals representing a dissociative-PTSD subtype (13.7% & 13.1% respectively) and a group reporting severe PTSD in the absence of dissociation. In the Danish data we assessed if these two groups could be differentiated from each other based on scores related to depression, anger, hostility, and sleeping difficulties. In the Canadian veteran data we assessed if dissociative PTSD vs. severe PTSD could be differentiated from each other based on a number of traumatic experiences, depression and anxiety scores. Results pertaining to the Danish data revealed significantly higher mean scores on measures of depression, anxiety, hostility, and sleeping difficulties in the dissociative PTSD group. However, there were no significant results uncovered in relation to the Canadian veteran data. The implications of these findings will be discussed.
Risk Factors and Correlates of the PTSD Dissociative Subtype
(Assess Dx, Assess Dx-Mil/Vets, Adult, M, N/A)

Marx, Brian, PhD; Green, Jonathan, PhD; Bovin, Michelle, PhD; Wolf, Erika, PhD; Annunziata, Anthony, PhD; Rosen, Raymond, PhD; Keane, Terence, PhD
1National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
2VA - National Center for PTSD, Boston, Massachusetts, USA
3VA Boston Healthcare System, National Center for PTSD; Boston University School of Medicine, Boston, Massachusetts, USA
4National Center for PTSD at VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA
5VA Boston Healthcare System, Boston, Massachusetts, USA
6New England Research Institutes, Inc., Watertown, Massachusetts, USA
7VA Boston Healthcare System, National Center for PTSD, Boston, Massachusetts, USA

Evidence regarding characteristics (e.g. gender breakdown) and correlates of the PTSD dissociative subtype is mixed (Stein et al., 2013; Wolf et al., 2012). No prior research has examined the relation between peritraumatic emotions and the dissociative subtype. The current study explored these phenomena in a large mixed gender veteran sample.

Participants were 845 OEF/OIF/OND veterans enrolled in Project VALOR who met criteria for PTSD on the SCID-5. Three groups were created: participants without PTSD (NPG; 33.6%), with PTSD but without any dissociative symptoms (PG; 41.7%), and with PTSD and any dissociative symptoms (24.7%; PDG). PTSD symptom severity was highest in the PDG [F(2,1244)=297.65, p<.001]. Controlling for PTSD symptom severity in subsequent analyses, sex [Χ2(2)=5.86, p=.053] and race [Χ2(10)=12.02, p=.284] were unrelated to group membership. Those in the PDG were more likely to report peritraumatic joy, current somaticizing symptoms, and a prior military sexual trauma (MST). PTSD group membership was unrelated to psychosocial impairment or suicid ide risk. MST may be a risk factor for the PTSD dissociative subtype. Our finding that those who met criteria for the PTSD dissociative subtype are more likely to recall positive emotions in relation to their traumatic event suggests potential challenges in successfully using exposure-based treatments with this group.

Symptomatology and Neurobiology of the Dissociative Subtype of PTSD: Self-Report and FMRI studies
(Assess Dx, Assess Dx-Bio Med-Complex, Adult, M, N/A)

Frewen, Paul, PhD; Brown, Matthew, BA (Hons); Steuwe, Carolin, BA (Hons); Lanius, Ruth, MD, PhD
1University of Western Ontario, London, Ontario, Canada
2Ev. Krankenhaus Bielefeld, Bielefeld, Germany

A dissociative subtype of PTSD (D-PTSD) has been described based on the endorsement of depersonalization and derealization. This presentation will describe our results in an online community sample of 2507 regarding the symptom structure of D-PTSD assessed by the PCL-5, whereby a 5-class solution identified two PTSD classes who endorsed dissociative experiences associated with either 1) severe or 2) moderate PTSD symptom severity (D-PTSD classes). Those in the severe dissociative class were particularly likely to endorse histories of childhood physical and sexual abuse. A principal axis factor analysis also identified six latent factors within the DSM-5 symptom space: 1) Reexperiencing, 2) Emotional Numbing/Anhedonia, 3) Dissociation, 4) Negative Alterations in Cognition & Mood, 5) Avoidance, and 6) Hyperarousal. We will also describe results concerning the relative frequencies and intercorrelations among endorsement of dissociative vs. non-dissociative PTSD symptoms, as well as their relative associations with other dissociative experiences and childhood trauma histories, as tests of the hypotheses of the 4-D model of trauma-related dissociation. Finally, we will overview the results of a neuroimaging study of 49 persons with PTSD investigating resting-state connectivity within regions of interest (e.g., amygdala) between persons with (n=13) vs. without D-PTSD (n=36).
Concurrent Session Three

Cognitive Processes/Interventions Paper Session One
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Galerie 2 – Cognitive Processes/Interventions Track

A Treatment Outcome Study of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) with a Quebec Sample of Sexually Abused Children
(Clin Res, CSA, Child/Adol, I, Global)

Hébert, Martine, PhD1; Tourigny, Marc, PhD2
1Universite du Quebec a Montreal (UQAM), Montreal, Quebec, Canada
2Universite de Sherbrooke, Longueuil, Quebec, Canada

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) (Cohen, Mannarino, & Deblinger, 2006) is identified as a best practice to alleviate negative consequences associated with child sexual abuse. Yet, the question of transportability of such evidence-based treatments in different settings is relevant and the vast majority of outcome studies have been conducted in the US. The present study offers data as to the effects of the TF-CBT as implemented in a Child Advocacy Center in Montreal (Quebec, Canada). A pretest/posttest design was used with a sample of 105 sexually abused children (6 to 12 years old) participating in TF-CBT compared to a comparison group of 71 children benefiting from usual care services. Results indicate that children in TF-CBT reported fewer post-traumatic symptoms, less feelings of guilt and relied less on avoidance coping than children in the comparison group (effect size d ranging from .40 to .73). Parental reports also revealed that children in TF-CBT presented less behavior problems and dissociation relative to children in the comparison group (d = .43 to .89). The results provide further evidence of the efficacy of TF-CBT. Challenges in fidelity implementation, namely in regards to length of treatment will be discussed.

Does Trait Rumination Moderate the Effect of Induced Rumination onAnalogue Trauma Intrusions?
(Clin Res, Affect/Int-Cog/Int-Depr-Theory, Adult, M, Industrialized)

Kubota, Rie, PhD Candidate; Nixon, Reginald, PhD
Flinders University, School of Psychology, Adelaide, South Australia, Australia

Trauma-related rumination is a maladaptive cognitive process following trauma exposure. Trait rumination is a risk factor for the development of PTSD including distressing trauma intrusions. Past laboratory research has found mixed results for the effect of induced rumination on trauma intrusions, and it has been speculated that general ruminative tendency plays a role. We examined the effects of induced rumination on analogue trauma intrusions and associated distress. Study 1: University students (N = 60) viewed a video depicting interpersonal violence scenes and then underwent either a rumination or distraction procedure. Baseline levels of rumination were measured. Intrusion frequency and associated distress were assessed during 2-minute periods immediately after manipulation and after exposure to video-reminders as well as during 1-week and at 1-week follow-up. As expected, trait rumination was found to moderate the effect of induced rumination on intrusion frequency, but not distress. However this effect was only found immediately following the manipulation. Study 2: A study is ongoing using an improved rumination induction (currently n = 24; target N = 60). The full results of Study 2 will be reported at the conference, with the prediction that the improved rumination induction will result in longer-lasting effects on intrusions.

Mindfulness-Based Exposure Therapy for PTSD: A Controlled Clinical Pilot Study with OEF/OIF Combat Veterans
(Clin Res, Clin Res-Cog/Int-Mil/Vets, Adult, M, Industrialized)

King, Anthony, PhD1; Porter, Katherine, PhD2; Favorite, Todd, PhD, ABPP3; Rauch, Sheila, PhD, ABPP4; Liberzon, Israel, MD4
1VA Ann Arbor Healthcare System / University of Michigan, Ann Arbor, Michigan, USA
2VA Ann Arbor Health Care System, Ann Arbor, Michigan, USA
3University of Michigan / VA Healthcare System, Ann Arbor, Michigan, USA
4University of Michigan, Ann Arbor, Michigan, USA

Pilot studies suggest mindfulness-based interventions (8-week MBRS and MBCT groups) as useful for PTSD. We developed a 16-week PTSD-specific group intervention “Mindfulness-Based Exposure Therapy” (MBET), incorporating mindfulness meditation, self-compassion exercises, and in vivo exposure (to avoided activities, no trauma exposure). A pilot trial with 39 OEF/OIF veterans with combat PTSD was conducted at a VA PTSD clinic (https://clinicaltrials.gov/ct2/show/NCT01347749), N = 26 were assigned to MBET and N = 13 a comparison intervention, Present-Centered Group Therapy (PCGT). PTSD symptoms (CAPS) were assessed at pre- and post-therapy by a blinded assessor. (Some patients also underwent pre-post fMRI scans). MBET had better retention than PCGT (p<.01). PTSD improved significantly pre- to post-therapy in MBET completers (CAPS 15.7 point decrease, p=.005 Hedges g=.78) and in intent-to-treat (ITT) analysis (12.0 point decrease g=.65 p=.005). PCGT also had significant improvement in ITT (7.3 point decrease g=.44)

44 | Page  Presenters’ names are in bold. Discussants’ names are underlined. Moderators’ names are in bold and underlined. Guides to keyword abbreviations located on pages 2-3. (Primary keyword, Secondary Keywords, Population type) Presentation Level – Region
p < .04) but not in completer analysis (8.8 point decrease, p = 0.23). Between group effect size (g = .43, p < .098) was trend level. Thus mindfulness and self-compassion meditation appear well tolerated by OEF/OIF combat veterans with PTSD, and the MBET group had statistically significant and clinically meaningful improvements in PTSD symptoms (i.e. CAPS decrease > 10 points).

**Trait Rumination Predicts Onset of Post-Traumatic Stress Disorder through Trauma-Related Cognitive Appraisals: A 4-year Longitudinal Study**

(Clin Res, Acute-Anx-Cog/Int-Depr, Adult, M, Industrialized)

Spinhoven, Philip, PhD1; Penninx, Brenda, PhD2; van Hemert, Bert, MD, PhD3; Elzinga, Bernet, PhD1

1Leiden University, Leiden, Netherlands
2University of Amsterdam, Amsterdam, Netherlands
3Leiden University Medical Center, Leiden, South-Holland, Netherlands

Trauma-related rumination and worry predict chronic PTSD. This study examined whether habitual rumination and worry also make persons more vulnerable to the onset of PTSD, because habitual ruminators and worriers will be more prone to cognitively appraise trauma exposure in a negative way. A sample of 2981 adults aged 18-65, consisting of healthy controls and persons with past or current depressive and/or anxiety disorders were assessed at baseline and at follow-up four years later (n = 2402). At follow-up, 359 participants reported exposure to a traumatic event during the last four years of whom 52 (14.4%) had developed PTSD. Pre-trauma self-reported depression severity and trait rumination predicted onset of PTSD during follow-up, controlling for demographic and clinical history variables, as well as psychiatric diagnoses at baseline. The relation of trait rumination with onset of PTSD was partly mediated by the cognitive appraisal of the traumatic event and not by the affective reaction to trauma exposure. Repetitive negative thinking in the form of (trauma-related) rumination may be a risk factor for onset of PTSD amenable to prevention and intervention.

**Symposium**

**Thursday, November 5**

2:45 p.m. to 4:00 p.m.

**Galerie 3 – Affective Processes/Interventions Track**

**Posttraumatic Stress Disorder and Sleep: Not a Dream Team!**

(Clin Res, Affect/Int-Anx-Clin Res-Sleep, Adult, M, Industrialized)

Lommen, Miriam, PhD

Oxford University, Oxford, United Kingdom

Sleep disturbances like insomnia and nightmares are the rule rather than the exception in patients with posttraumatic stress disorder (PTSD). The exact relationship between these sleep disturbances and PTSD, however, is not yet known. In this symposium we will present clinical and experimental studies that shed light on this fascinating duo. Dr. Birgit Kleim will present data on the effects of sleep on emotional processing by investigating the development of intrusions after a trauma film in a sleep and non-sleep group. Daniel Zuj will present a study examining the relation between impaired sleep and extinction learning in trauma-exposed individuals with and without PTSD and a non-trauma exposed control group. Dr. Miriam Lommen will present a study that tested whether sleep influenced treatment outcome in patients who received PTSD treatment. Elizabeth Woodward compared the effects of standard and intensive cognitive therapy for PTSD on sleep complaints, and discussed the effects of PTSD treatment on objective sleep measures. In this symposium, new information on the relationship between sleep and PTSD will be presented. The clinical implications of these scientific insights will be discussed, including questions like if, when, and how to deal with sleep problems when treating patients with PTSD.

**Sleep to Prevent Posttraumatic Stress Disorder? Sleep after Trauma Exposure in the Laboratory Reduces Intrusive Memories and Depotentiates their Affective Tone**

(Present, Acute-Clin Res-Bio/Int-Sleep, Adult, M, Industrialized)

Kleim, Birgit, PhD1; Wysokowsky, Julia, MSc2; Schmid, Nuria, MSc1; Rasch, Björn, PhD3

1University of Zurich, Zürich, ZH, Switzerland
2Uni du Quebec a Montreal, Zürich, ZH, Switzerland
3UC Davis School of Medicine, Fribourg, FR, Switzerland

Objective: Sleep's role in the context of experiencing trauma has been a topic of considerable debate. Objective of the present study was to test the possible protective role of sleep on intrusive emotional memory formation after trauma exposure. Methods: Sixty-five healthy women viewed a...
neutral and a trauma film in the laboratory. Participants were randomly allocated to either a group that slept following film viewing or a group that remained awake. Sleep was recorded with EEG in a subgroup of participants in the sleep group. All participants recorded intrusive memories in the week following the film. Results: We provide direct evidence that sleep early after trauma has a protective effect on the formation of intrusive trauma memories, one of the core symptoms of posttraumatic stress disorder (PTSD). Individuals who slept experienced fewer and less distressing intrusive trauma memories compared to those who remained awake. Duration spent in stage N2 as opposed to light N1 sleep, a higher number of fast parietal sleep spindles and a lower REM sleep density predicted intrusion frequency. Conclusions: Our results have clinical implications and set the ground for early intervention sleep studies following trauma and prevention of chronic PTSD.

Reduced Sleep Quality and Impaired Fear Extinction Learning as Predictors of PTSD Severity

(Clin Res, Res Meth-Sleep-Theory, Adult, M, Industrialized)

Zuj, Daniel, PhD Candidate; Palmer, Matt, BA (Hons), PhD; Vickers, James, PhD; Felmingham, Kim, PhD
University of Tasmania, Hobart, Tasmania, Australia

Prior research demonstrates that poor sleep quality and reduced extinction of fear are important factors in the development and maintenance of PTSD. Furthermore, recent studies in healthy subjects show that effective fear extinction is influenced by sleep quality. The aim of the present study was to investigate the link between sleep and fear extinction in predicting PTSD. This study examined subjective sleep quality and fear extinction in 67 individuals varying in levels of trauma exposure and PTSD symptoms; i.e., trauma non-exposed controls, (2) trauma-exposed controls without PTSD, and (3) trauma-exposed individuals with clinical levels of PTSD. Participants underwent a one-day differential fear conditioning and extinction paradigm with a mild electric shock as the unconditioned stimulus and skin conductance response as the measure of conditioned fear expression. Sleep quality was measured using the Pittsburgh Sleep Quality Index and PTSD symptom severity was obtained via the PTSD Checklist. Multiple regression analyses revealed total sleep quality and impaired fear extinction learning to be significant predictors of PCL total score. Mediation analyses revealed that impaired sleep did not mediate the relationship between impaired fear extinction and PTSD symptom severity.

Sleep and Treatment Outcome in Posttraumatic Stress Disorder: Results from an Effectiveness Study

(Clin Res, Clin Res-Clinical Practice-Sleep, Adult, M, Industrialized)

Lommen, Miriam, PhD; Grey, Nick, PhD; Clark, David, PhD; Wild, Jennifer, DPysch(Clin); Stott, Richard, PhD; Ehlers, Anke, PhD

1Oxford University, Oxford, United Kingdom
2King’s College, London, London, United Kingdom
3King’s College London, University of London, London, United Kingdom

Background Most patients with posttraumatic stress disorder (PTSD) suffer from sleep problems. There is growing concern about possible detrimental effects of sleep problems on PTSD treatment efficacy. In this study we investigated the relationship of changes in PTSD symptoms and sleep across treatment sessions, and whether sleep quality and sleep duration predicted treatment outcome. Method Self-reported sleep quality and duration, and PTSD symptoms were assessed weekly in a consecutive sample of 247 patients who received cognitive therapy for PTSD (CT-PTSD; Ehlers & Clark, 2000). Parallel latent growth modeling tested the relationship between changes in sleep and PTSD symptoms, and whether sleep disturbance predicted poorer response to treatment. Results Improvements in sleep occurred in parallel with improvement in PTSD symptoms during therapy. Sleep quality and duration at the start of therapy did not predict the decrease in PTSD symptoms over treatment. Conclusion Results suggest that CT-PTSD leads to simultaneous improvement in sleep and PTSD symptoms. Self-reported sleep problems at the start of treatment did not interfere with therapeutic gains in terms of PTSD symptoms, suggesting that PTSD patients who report sleep problems do not necessarily need treatment to improve their sleep in order to benefit from trauma-focused treatments such as CT-PTSD.

The Effects of Cognitive Therapy for Posttraumatic Stress Disorder on Sleep Disturbances.

(Clin Res, Clin Res-Sleep, Adult, M, N/A)

Woodward, Elizabeth, PhD Student; Ehlers, Anke, PhD
Oxford University, Oxford, United Kingdom

Sleep disturbances, such as insomnia, are common in people with posttraumatic stress disorder (PTSD). They are among the most distressing symptoms (see Nappi, Drummond & Hall, 2012), and are often key in motivating patients to seek treatment (Schreuder et al., 1998). Growing evidence suggests that sleep disturbances may play a role in maintaining PTSD (Gehrman et al., 2013) and may persist following otherwise effective PTSD treatment (Gutner, Monson, Bruce & Reisick, 2013), raising the question of whether insomnia should be targeted directly in the treatment of PTSD. However many of the results of previous studies on PTSD treatment effects on sleep are somewhat inconsistent, possibly due to methodological differences in sleep measurement. In this talk, results from a recent randomised controlled trial (Ehlers et al., 2014) will be presented, showing that self-reported hours of sleep are significantly improved with standard (3 month) trauma focused cognitive therapy (TF-CT) for PTSD, and improve faster when therapy is delivered in an intensive (7 day) format. Preliminary data will then be presented from a second study investigating the effects of TF-CT on sleep, using both objective (actigraphy) and validated self-report measures of sleep.
Effects of Violence in the USA
Paper Session
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Galerie 4 – Public Health Track

Behavioral Health Providers Utilizing Evidence Based Practices to Treat Trauma and its Effect on Compassion Satisfaction, Compassion Fatigue, and Burnout
(Self-Care, Clin Res-Health, Prof, I, N/A)

Christ, Shelley, DNP Student, BSN, RN; McCoy, Kathleen, Dsc
Brandman University, Irvine, California, USA

This is an investigation of the effect that utilizing evidence-based practices (EBP) to treat trauma has on compassion fatigue (CF), compassion satisfaction (CS), and burnout (BO) in a multidisciplinary sample of mental health (MH) providers licensed by the state of Connecticut. Data was gathered using a demographic questionnaire, the Trauma Practices Questionnaire (TPQ) (Craig & Sprang, 2007), and the Professional Quality of Life Scale (PQL) (Stamm, 2005-2012). A stratified sample of participants representing psychiatrists, licensed certified social workers (LCSW), advanced practice registered nurses (APRN), alcohol and drug (A&D) counselors, marriage and family therapists (MFT), professional counselors, and master’s prepared social workers (MSW) were randomly selected. Results were analyzed using SPSS in two stages completing a chi square along with ANOVA and an 14-step hierarchical regression analysis. The findings revealed that MH providers utilizing EBP to treat trauma self-report less CF and CS than providers who do not utilize EBP.

Understanding Indigenous Narratives of Posttraumatic Stress: Stories of Trauma and Recovery from American Indian Women
(CulDiv, Comm/Int-Pub Health-Res Meth-Social, Lifespan, M, Industrialized)

Belcourt, Annie, PhD1; Pearson, Cynthia, PhD2; Schultz, Katie, MSW2
1University of Montana, Missoula, Montana, USA
2University of Washington, Seattle, Washington, USA

Epidemiological studies of trauma exposure within American Indian and Alaska Native (Native) populations find that while Native women experience equivalent trauma exposure to Native men; Native women are more likely to develop Diagnostic PTSD. This elevated psychiatric risk is largely due to exposure to intimate partner and sexual forms of trauma women experience. This finding further underscores the need for effective intervention development. This requires an understanding of resiliency and indigenous healing within the unique sociocultural context of indigenous communities. This paper sought to understand resiliency, risk, and PTSD symptoms through community-based analyses of qualitative and quantitative data towards the cultural adaption of an empirically based intervention within a Pacific Northwest Native community. Qualitative findings indicate that effective healing interventions should address the disruptions of trust, safety, power/control, respect/esteem, and emotional intimacy with regard to symptoms of PTSD reported in this community. Qualitative analysis identified culturally situated descriptions of PTSD symptoms (hyperarousal, hypervigilance, avoidance, and reexperiencing) and resiliency (culturally defined sources of strength such as social support, spirituality, culture, and self-esteem).

Lifetime Adversity and Responses to the Boston Marathon Bombings in a Representative National Sample of Americans
(Social, Acute-Anx-Comm/Vio-Terror, Adult, M, Industrialized)

Garfin, Dana Rose, PhD; Holman, E. Alison, PhD; Silver, Roxane, PhD
University of California, Irvine, Irvine, California, USA

Different types of lifetime adversity may uniquely contribute to reactions to subsequent collective trauma exposure. Using a longitudinal design, we examined relationships between prior adverse experiences and psychological responses to the 2013 Boston Marathon bombings (BMB). Representative samples from metropolitan Boston (N=846), New York (N=941) and the rest of the US (N=2888) reported acute reactions to and experiences surrounding the BMB. Six months later, lifetime adversity, posttraumatic stress (PTS) symptoms, ongoing fear/worry about terrorism, and functional impairment were assessed. Exposure to prior adversity was grouped by: a) DSM-5 criteria for traumatic vs. non-traumatic events, and b) seven fine-grained categories of adversity: injury to self, injury to close other, violence, bereavement, social-environmental stressor, relationship stressor, and community disaster. Adult and childhood exposures were also compared. Differential relationships between type of adverse event and outcome were exhibited. For example, lifetime trauma (especially violence) and non-traumatic childhood adversity were associated with negative outcomes; lifetime social-environmental stressors predicted ongoing fear/worry about terrorism. Fine-grained assessment of lifetime adversity may help identify trauma survivors at risk for subsequent problems following collective trauma.
Toward an Understanding of the Relationship between Resilience and Posttraumatic Growth in New Orleans Mental Health Responders Working in a Post Hurricane Katrina Environment

(Practice, Clinical Practice-Nat/Dis-Self-Care, Prof, I, N/A)

Tosone, Carol, PhD¹; Bauwens, Jennifer, PhD²
¹New York University, New York, New York, USA
²Clinical Social Work Journal/Other, Princeton, New Jersey, USA

There is some conceptual ambiguity between Resilience and posttraumatic growth (PTG) in the professional literature, with some suggesting that PTG is a form of Resilience and others that PTG is a superior construct. This study aimed to provide further clarity by examining the relationship between Resilience and PTG in a group of New Orleans Mental Health Responders (N=219) personally and professionally exposed to Hurricane Katrina. Findings indicate that the correlation between Resilience and PTG is, as expected, positive and statistically significant (r = .15, p = .024). When controlling for variables associated with Resilience and PTG respectively, Compassion Satisfaction has the greatest overlap. Primary/Secondary Shared Trauma, Posttraumatic Stress, and Compassion Fatigue exhibit moderately strong relationships to Resilience but rather weak relationships to PTG. Conversely, the two remaining control variables, Life Events and Shared Trauma/Professional Posttraumatic Growth, exhibit stronger relationships to PTG than to Resilience. These findings support the interrelationship of resilience and posttraumatic growth, but suggest that each have specific variables more associated with one than the other.

Master Clinician
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Galerie 5 – Other Interventions Track

Finding Feeling: Treating Traumatic Dissociation
(Clin Res, Chronic-Complex-Neuro, Adult, M, Global)

Spiegel, David, MD
Stanford University School of Medicine, Stanford, California, USA

Trauma is a both a physical and psychological disruption, a discontinuity in experience. The helplessness associated with it challenges a person’s sense of agency and therefore their customary control over mind and body. Dissociative Disorders constitute a failure of integration of identity, memory, or consciousness, and most often occur in the aftermath of trauma. A Dissociative Subtype has been added to the diagnosis of Post-Traumatic Stress Disorder the DSM-5. This requires all of the DSM-5 PTSD symptoms plus depersonalization and/or derealization. This addition was made on the basis of latent class analyses, epidemiological data linking early life trauma, and neuroimaging evidence of frontal overactivity and limbic inhibition. Effective treatment of dissociative response to trauma involves a primary focus on psychotherapy, with adjunctive use of medication for symptom control. There is evidence that those with these dissociative symptoms benefit from psychotherapies that emphasize stabilization, mood regulation, and relapse prevention, in addition to working through trauma-related memories. This talk will address the array of treatments available for PTSD and dissociation, including those that are phase-oriented and involve hypnosis. The presence of prominent dissociative symptoms can and should affect the choice of both psychotherapy and medication.
Workshop Presentation
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Galerie 6 – Child Trauma Track

Turn it Up: Music as a Medium for Engagement and Change in Trauma-Focused Therapy
(Practice, Complex-Media, Child/Adol, M, N/A)

Griffin, Jessica, PsyD1; Wozniak, Jessica, PsyD2; Cohen, Judith, MD3; Mannarino, Anthony, PhD4
1University of Massachusetts Medical School, Worcester, Massachusetts, USA
2Baystate Medical Center, Springfield, Massachusetts, USA
3Allegheny General Hospital, Pittsburgh, Pennsylvania, USA
4Allegheny General Hospital/Drexel University College of Medicine, Pittsburgh, Pennsylvania, USA

The use of music in Trauma-Focused Therapy (e.g., TF-CBT) can strengthen the therapeutic relationship, foster engagement, and assist youth in proceeding through treatment components. Children and adolescents who are hesitant to engage in treatment and those who avoid directly discuss anxiety-provoking memories may be more comfortable expressing themselves through music. Adolescents, youth with complex trauma histories, and youth who struggle to engage in treatment benefit from the integration of music into treatment. Music often a universal language, can assist in disarming avoidant strategies and increasing empowerment. Music provides another set of tools for youth to utilize during stabilization components of TF-CBT, the development of the Trauma Narrative, and in meaning making and integration of trauma experiences. The session will begin with a brief review of the research in the application of music in trauma work including the impact of music on biology and the brain. After this brief review, participants will engage in an interactive session involving case examples, music, videos, and demonstration of techniques provided by a national TF-CBT trainer and national TF-CBT consultant. Examples of integration of music will be provided across all TF-CBT components while presenters describe using music as a powerful tool while maintaining fidelity to the TF-CBT model.

Symposium
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Salon A-C – Bio-Med/ Genetics Track

Neuroimaging-Genetic Studies of PTSD
(Bio Med, Genetic-Neuro, Lifespan, A, N/A)

Miller, Mark, PhD
National Center for PTSD at VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA

Neuroimaging studies have linked PTSD to various structural and functional abnormalities of the brain. However, the extent to which these findings reflect pre-existing vulnerabilities, consequences of the illness, or some combination thereof remain open questions. Neuroimaging-genetic studies can potentially shed light on the answers to these questions by identifying genetic loci that influence brain morphology and function directly, and/or that modify the putative effects of PTSD on the brain. This symposium, organized by the Genomics Special Interest Group of ISTSS and members of the Psychiatric Genomics Consortium-PTSD workgroup, will feature findings from new studies that combined neuroimaging and molecular genetic methodologies to advance the understanding of the neurobiology of PTSD.

A Role for the Endocannabinoid System in Processing of Threat-Related Symptoms in PTSD
(Bio Med, Chronic-Complex-Neuro, Adult, A, Industrialized)

Neumeister, Alexander, MD
New York University School of Medicine, New York, New York, USA

Elucidation of neurobiological systems implicated in trauma-related endophenotypes can inform etiologic models of trauma-related psychopathology, as well as the development of more targeted, mechanism-based prevention and treatment strategies. Using a multi-modal assessment approach that includes clinical interviews, neuroimaging using PET and a radiotracer to ascertain cannabinoid type 1 receptors, and functional endophenotypic measures of emotional reactivity, hypervigilance, motivational behaviors and fear processing mechanisms, we evaluated the relationship between in vivo CB1 receptor availability, and performance on endophenotype measures of threat processing, and clinician interview-based measures of trauma-related psychopathology. We found that greater CB1 receptor availability in the amygdala was associated with increased attentional bias to threat, as well as increased severity of trauma-related threat symptomatology. Given recent reports of the role of the common functional polymorphism of the gene coding fatty acid amid hydrolase (FAAH), the major degrading enzyme of endocannabinoids, this data will have implications for currently ongoing trials of candidate pharmacotherapies that target the anandamide-
CB1 receptor system in mitigating both the endophenotypic and phenotypic expression of threat symptomatology in symptomatic trauma survivors.

Variation in CACNA1C is Associated with Amygdala Structure and Function in Adolescents

Sumner, Jennifer, PhD1; Sheridan, Margaret, PhD2; Drury, Stacy, MD, PhD3; Estevs, Kyle, BA4; Walsh, Kate, PhD4; Koenen, Karestan, PhD1; McLaughlin, Katie, PhD5
1Columbia University, Mailman School of Public Health, New York, New York, USA
2Harvard Medical School/Children’s Hospital Boston, Boston, Massachusetts, USA
3Tulane University, New Orleans, Louisiana, USA
4Columbia University, New York, New York, USA
5University of Washington, Seattle, Washington, USA

Genome-wide association studies have linked variation in CACNA1C with risk for multiple psychiatric disorders associated with limbic system dysfunction. Although CACNA1C genotype is associated with amygdala morphology and activation in adults, whether genetic variation influences amygdala structure and function earlier in development has not been examined. In this first investigation of the neural correlates of CACNA1C in young individuals, we examined associations between two single nucleotide polymorphisms in CACNA1C (rs1006737 and rs4765914) with amygdala volume and activation during emotional processing in 58 adolescents aged 13-20 years. Minor (T) allele carriers of rs4765914 exhibited smaller amygdala volume than major (C) allele homozygotes (β=-0.33, p<.01). Furthermore, minor (A) allele homozygotes of rs1006737 exhibited increased blood-oxygen-level-dependent (BOLD) signal in the amygdala when viewing negative (vs. neutral) stimuli (β=0.29, p=.04) and decreased BOLD signal in the amygdala when instructed to down-regulate their emotional response to negative stimuli (β=-0.38, p<.01). Childhood trauma did not moderate the associations of CACNA1C variation with amygdala structure and function (p=.17). Findings indicate that CACNA1C-related differences in amygdala structure and function are present by adolescence.

Childhood Trauma Interacts with COMT Risk Genotype to Predict Reduced Hippocampal Involvement in Inhibition

Stevens, Jennifer, PhD1; Ely, Timothy, BS2; Sawamura, Takehito, MD, PhD3; Smith, Alicia, PhD1; Kerley, Kimberly, BS3; Reddy, Renuka, BS4; Ressler, Kerry, MD, PhD5; Norholm, Seth, PhD6; Jovanovic, Tanja, PhD1
1Emory University School of Medicine, Atlanta, Georgia, USA
2Emory University, Atlanta, Georgia, USA
3Self Defense Forces Central Hospital, Yokosuka City, Kanagawa, Japan
4Atlanta VAMC/Emory University, Decatur, Georgia, USA

We previously found that the val-met polymorphism (rs4860, chromosome 22) in the gene coding for catechol-O-methyltransferase (COMT) is associated with impaired fear inhibition in post-traumatic stress disorder. In the brain, COMT is most densely expressed in the hippocampus and prefrontal cortex, regions that play critical roles in fear inhibition. Previous studies have found that this polymorphism predicts increased limbic responses to emotional stimuli, but little research has assessed its influence on inhibitory brain function. Here we investigated the influence of COMT genotype on brain function in an inhibition task, focusing on the impact of traumatic experiences in individuals with the risk genotype. We measured fMRI activation in 73 female trauma survivors ages 18-62. Whole-brain analyses showed an interaction between COMT genotype and childhood trauma in the left hippocampus: child trauma was negatively associated with inhibition response (No-Go>Go) in the risk group (Met carriers), and positively associated with inhibition in the resilient group (Val-Val), p<.05, corrected. This remained significant after controlling for adult trauma load. Findings point to hippocampal function as a brain mechanism for the reduced fear inhibition associated with the COMT val-met polymorphism, and highlight how childhood trauma may exacerbate genetic risk via brain pathways.

A Novel Locus in the Oxidative Stress-Related Gene ALOX12 Moderates the Association between PTSD and Thickness of the Prefrontal Cortex
(Bio Med, Genetic-Neuro, Adult, A, Global)

Miller, Mark, PhD1; Wolf, Erika, PhD1; Sadeh, Naomi, PhD1; Logue, Mark, PhD1; Spielberg, Jeffrey, PhD2; Hayes, Jasmeet, PhD2; Sperbeck, Emily, BS1; Stone, Annjanette, BS1; Milberg, William, PhD3; McGlinchey, Regina, PhD1
1National Center for PTSD at VA Boston Healthcare System & BUMS, Boston, Massachusetts, USA
2VA Boston Health Care System/Boston University, Boston, Massachusetts, USA
3VA Boston Healthcare System & Boston University School of Medicine, Boston, Massachusetts, USA
4VA Medical Center, Little Rock, Arkansas, USA

Oxidative stress is a fundamental molecular mechanism of aging implicated in a many common diseases and hypothesized to play a role in posttraumatic stress disorder (PTSD)-related neurodegeneration. This study examined the influence of the oxidative stress-related genes ALOX12 and ALOX15 on the association between PTSD and cortical thickness. Factor analyses were used to identify and compare alternative models of the structure of cortical thickness in a sample of 218 veterans. The best fitting model was then used for a genetic association analysis that examined relationships between 33 single nucleotide polymorphisms (SNPs) spanning the two genes, 8 cortical thickness factors and each SNP x PTSD interaction. Results identified a novel ALOX12 locus (defined by two SNPs in perfect linkage disequilibrium: rs1042357 and rs10852889) that moderated the association between PTSD and reduced thickness of the right prefrontal cortex. A whole-cortex
vertex-wise analysis showed this effect to be localized to clusters spanning the rostral middle frontal gyrus, superior frontal gyrus, rostral anterior cingulate cortex and medial orbitofrontal cortex. Findings illustrate a novel factor-analytic approach to neuroimaging-genetic analyses and provide new evidence for the possible involvement of oxidative stress in PTSD-related neurodegeneration.

**Symposium**

**Thursday, November 5**

**2:45 p.m. to 4:00 p.m.**

**Salon D – Public Health Track**

**Integrating Body and Mind:**

**Understanding the Impact of Trauma on Physical and Mental Health**

*(Clin Res, Complex-Health-Pub Health, Lifespan, M, Industrialized)*

Gagnon, Kerry, MA; DePrince, Anne, PhD

*University of Denver, Denver, Colorado, USA*

While research has long focused on the mental health consequences of trauma exposure, researchers and practitioners have increasingly recognized important and under-studied links to physical health problems. Data from three independent studies will examine physical health and psychological outcomes of complex trauma across different developmental stages. Presenters will draw on diverse community and juvenile justice samples to evaluate the interplay between victimization history (including intimate partner violence, polyvictimization), physical and mental health outcomes, and behaviors. In addition to common post-traumatic mental health outcomes (e.g., PTSD symptoms, depression symptoms), the presentations will identify diverse physical health outcomes and behavior, including general physical health symptoms, somatic complaints, substance use, and sexually transmitted infections. Across presentations, implications of study findings for policy and practice will be discussed. The Discussant will focus on policy implications for addressing the health consequences of trauma.

**High Risk Adolescents’ Physical Health:**

**The Impact of Gender, Cumulative Trauma, Poly-victimization, Traumatic Loss, Substance Abuse, and PTSD and Dysphoria Symptoms**

*(Clin Res, Chronic-Complex-Health-Grief, Child/Adol, M, Industrialized)*

Ford, Julian, PhD; Grasso, Damion, PhD

*University of Connecticut Health Center, Farmington, Connecticut, USA*

High risk adolescents in juvenile justice systems often have extensive cumulative trauma histories and are at risk for physical as well as mental health problems. In a juvenile detention sample (N = 1959; 24% female) hierarchical regression analyses were conducted examining the association of empirically-identified poly-victimization and cumulative trauma sub-group membership (Ford, Grasso, et al., 2013) with physical health problems while controlling for gender and psychological and behavioral problems. Female gender, poly-victimization, and cumulative trauma exposure each was associated with physical health problems. Depression/anxiety, PTSD intrusion and hyperarousal, and anger symptoms accounted for those relationships except for interaction effects showed poly-victimization was uniquely associated with physical health problems for youth with high substance abuse risk or low levels of PTSD intrusion and hyperarousal symptoms. When discrete types of trauma were entered, traumatic loss was associated with physical health problems beyond the effects of gender, poly-victimization, and cumulative trauma. Results are discussed in terms of complex additive and interactive effects on physical health of gender, dysphoria, post-traumatic hyperarousal, traumatic loss, cumulative trauma, and post-traumatic hypoarousal or substance abuse in the context of polyvictimization.

**Early Violence Exposure, IPV, and Sexual Risk in Young Minority Women**

*(Prevent, DV-Health, Adult, M, Industrialized)*

Wilson, Helen, PhD

*Stanford University School of Medicine, Stanford, California, USA*

Introduction: Girls growing up in low-income urban communities are at disproportionate risk for violence exposure, which can have adverse consequences for health and health-related behaviors. This paper examines the indirect pathway from early violence exposure to risky sex through intimate partner violence (IPV) in young minority women. Methods: 118 young African American women from low-income communities completed an assessment of lifetime violence exposure during adolescence (mean age 17) and a follow-up (mean age 21) assessment of IPV and sexual risk. Analyses involved latent variable structural equation modeling (SEM). Results: SEM supported a model with pathways from violence exposure to IPV victimization (β = .24, p < .05) and from IPV victimization to sexual risk (β = .46, p < .001). Perpetration was associated with early violence exposure (β = .22, p < .05) but not sexual risk in the full model. Conclusion: Findings support linkages among early violence exposure, IPV, and sexual risk in young low-income minority women. Interventions to reduce sexual risk in young women should address violence history. Similarly, young women who have experienced early life violence would benefit from interventions to enhance healthy romantic relationships and reduce risks that occur in these relationships.
Intimate Partner Abuse and Physical Health Outcomes: Understanding the Interplay of Trauma-Related Appraisals and Physical Health Outcomes
(Clin Res, DV-Health, Adult, M, Industrialized)

Gagnon, Kerry, MA; DePrince, Anne, PhD
University of Denver, Denver, Colorado, USA

Research has found that women exposed to intimate partner abuse (IPA) are at an increased risk for significant mental and physical health outcomes; however, limited research has explored the association between IPA and physical health outcomes in-depth, such as how psychological responses to IPA influence physical health outcomes. The present study specifically examines the association between posttrauma appraisals (e.g., fear, betrayal) and physical health outcomes one year later. Participants included 236 ethnically diverse women who had incidents of IPA reported to law enforcement. At the first interview, women provided details about the IPA incident and relevant factors (e.g., posttrauma appraisals, demographics). One year later, women were asked to report on physical health problems. Analyses indicated that both perceptions of fear and betrayal were significantly related to quantity of physical health problems. Furthermore, perceptions of betrayal predicted later physical health problems, above and beyond fear, when controlling for demographics and severity of the IPA incident. Findings from the present study highlight the importance of considering appraisals of fear and betrayal related to an IPA incident when understanding the impact of IPA on physical health outcomes post-victimization. Implications of these findings for policy and practice will be discussed.

Symposium
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Salon E – Military Track

Overcoming Barriers: Helping Veterans Access Effective PTSD Treatment
(Clin Res, Mil/Vets, Adult, I, Industrialized)

Rosen, Craig, PhD
VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

Integrating clinical and scientific knowledge spans from developing and testing intervention to gathering scientific and clinical information on how to facilitate adoption of effective treatments into routine care. In this symposium, researchers will present work examining interventions and contextual factors that influence Veteran engagement in evidence-based psychotherapies (EBPs). Dr. Stecker will present results from a randomized clinical trial testing the effectiveness of a brief CBT to help service members at-risk for suicide seek treatment. Dr. Possemato will present results from a hybrid effectiveness-implementation study of a Referral Management System to address patient and system-level barriers to the uptake of EBPs among primary care veterans with PTSD. Dr. Sayer will present qualitative findings from a mixed-methods study examining how program policies and organizational structures influence use of CPT and PE in 9 VA outpatient PTSD clinics. Finally, Dr. Meis will examine how family involvement impacts veterans’ experiences in EBP treatment.

Increasing Treatment Seeking among At-Risk Service Members Returning Veterans from Warzones
(Clin Res, Comm/Int-Prevent-Mil/Vets-Care, Adult, I, N/A)

Stecker, Tracy, PhD
Dartmouth, Lebanon, New Hampshire, USA

This study tests the effectiveness of a cognitive-behavioral intervention to improve treatment uptake among service members at-risk for suicide. Methods: To be eligible, participants must have served in the military post 9/11; screen positive for suicidal ideation on the PHQ9, and not be in treatment. Participants are assessed for PTSD and comorbid conditions and are asked about mental health treatment. Participants are randomly assigned to the intervention or control group. Intervention participants are administered a cog-beh session delivered by phone during which they were asked to discuss beliefs about treatment. Participants are reassessed on symptoms and treatment utilization at 1, 3, 6, and 12 months fu interviews. Results: Of the 486 participants enrolled in this trial, 244 are in the intervention condition and 242 in the control condition. Both groups report moderate symptoms of PTSD and depression at baseline. Although preliminary, results suggest that intervention participants (14%) are twice as likely to attend a mental health appointment post-intervention than participants in the control group (7%). Conclusions: A brief cognitive-behavioral intervention to increase mental health
treatment seeking among at-risk service members who screen positive for suicidal ideation holds promise.

The Implementation of a Referral Management System for Veterans with PTSD in VA Primary Care (Clin Res, Care, Adult, I, Industrialized)

Possmato, Kyle, PhD; Johnson, Emily, PhD; Wray, Laura, PhD; Stecker, Tracy, PhD
1Syracuse Veterans Affairs Medical Center, Syracuse, New York, USA
2Center for Integrated Healthcare, Syracuse VA Medical Center, Syracuse, New York, USA
3VA Health Care System, Buffalo, New York, USA
4Dartmouth, Lebanon, New Hampshire, USA

Veterans Affairs (VA) primary care (PC) patients have low rates of engagement in evidence-based treatment (EBT) for PTSD. We conducted a hybrid effectiveness-implementation study of a Referral Management System (RMS) to address patient and system-level barriers to the uptake of EBT for PTSD. RMS addressed patient-level barriers with the delivery of a 1-session cognitive behavioral therapy (CBT) intervention to identify and change treatment seeking beliefs. System-level barriers were addressed by 1) care manager phone contacts to assist Veterans in attending appointments and 2) PC staff trainings on discussing PTSD with treatment-ambivalent patients. Over the 6 month implementation, 59 veterans were referred to RMS. Study outcomes were analyzed using the RE-AIM framework. Reach of RMS in primary care was minimal at 15%. RMS implementation was associated with a 100% increase in PTSD clinic referrals and a 76% increase in EBT receipt. RMS participants who received EBTs reported clinically significant decreases in PTSD symptoms (10 pt. decrease on PTSD Checklist), while those who did not receive EBTs reported an average 3 pt. decrease. Adoption of RMS was moderate among PC providers and high among PC mental health providers. RMS was implemented with high fidelity. Results provide guidance on further adaptation that is needed for larger scale implementation efforts.

The Role of Local Policies in Promoting Use of Evidence-Based Psychotherapies for PTSD in the U.S. Veterans Health Administration (Train/Ed/Dis, Train/Ed/Dis-Mil/Vets, Adult, I, Industrialized)

Sayer, Nina, PhD; Rosen, Craig, PhD; Bernardy, Nancy, PhD; Chard, Kathleen, PhD; Crowley, Jill, PhD; Eftekhari, Afsoon, PhD; Mohr, David, PhD; Kehle-Forbes, Shannon, PhD; Cook, Joan, PhD; Orazem, Robert, PhD; Smith, Brandy, BA; Schnurr, Paula, PhD
1Minneapolis VA Health Care System, Minneapolis, Minnesota, USA
2VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA
3National Center for PTSD,VA Palo Alto Health Care System, Menlo Park, California, USA
4Cincinnati VA Medical Center, Cincinnati, Ohio, USA
5National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
6Boston VA Medical Center, Boston, Massachusetts, USA
7Yale School of Medicine, West Haven, Connecticut, USA
8VA Medical Center, Minneapolis, Minnesota, USA
9National Center for PTSD, VA Palo Alto Health Care System, Menlo Park, California, USA
10VA National Center for PTSD, Executive Division, White River Junction, Vermont, USA

The U.S. Veterans Health Administration has set national policies and provided clinician training to promote use of evidence-based psychotherapies (EBPs) for PTSD, but has not systematically assessed how team-level processes impact EBP use. This mixed-methods study involved staff (8 to 16 per site) in 9 outpatient PTSD specialty clinics whose chart notes indicated high (5 sites) and low (4 sites) use of Cognitive Processing Therapy and/or Prolonged Exposure therapy. Qualitative interviews and survey were based on the British National Health Service Sustainability Model. The breadth of VHA training and the associated culture change contributed to perceived EBP sustainability. EBP use was influenced by treatment model, local leadership, systems for monitoring, and infrastructure for implementation, including scheduling and staffing. PTSD clinics differed in the patient populations they served, the scope of clinical and psychosocial problems they addressed, and how patient care was coordinated with other clinics. Participants identified the need for research to demonstrate a business case for allocating resources to EBPs. Expanding EBP use in PTSD teams requires examination of the larger context of service delivery.

Because I Asked You To: The Role of Family in Veterans’ Engagement in Trauma-Focused Treatment for PTSD (Clin Res, Fam/Int-Mil/Vets, Adult, I, Industrialized)

Meis, Laura, PhD, LP; Spoont, Michele, PhD; Erbes, Christopher, PhD, LP; Polusny, Melissa, PhD; Noorbaloochi, Siamak, PhD; Hagel Campbell, Emily, MS; Eftekhari, Afsoon, PhD; Kattar, Karen, PsyD; Rosen, Craig, PhD; Tuerk, Peter, PhD; Velasquez, Tina, MS; Erickson, Emily, MA Student; Thompson, Katie, MA; Stewart, Kimberly, MA Student; Yang, Talee, MA, PhD Student
1Minneapolis VA Health Care System and University of Minnesota, Minneapolis, Minnesota, USA
2National Center for PTSD, U.S. Department/Veterans Affairs, Minneapolis, Minnesota, USA
3Minneapolis VAHCS, Center for Chronic Disease Outcome Research, University of Minnesota Medical School, Minneapolis, Minnesota, USA
4Center for Chronic Disease Outcomes Research, Minneapolis VA Medical Center, Minneapolis, Minnesota, USA
5Minneapolis VA Medical Center, Minneapolis, Minnesota, USA
6National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
7Phoenix VA Healthcare System, Phoenix, Arizona, USA
8VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA
9Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA
10Minneapolis VA Health Care System, Minneapolis, Minnesota, USA

Little is known about how family members naturally promote or deter trauma survivors’ adherence to trauma-focused treatment (TFT) for PTSD. To learn more, we surveyed Veterans seeking TFTs for PTSD and their support persons (SPs) by
We were interested in family knowledge about TFT involvement, family attitudes about a TFT, and family behaviors that encourage or discourage approaching trauma-reminders. In preliminary analyses (n=241 Veterans, n=147 SPs), Veterans were more likely to complete 8 sessions if they told their SPs about their treatment (OR = 3.08; 95% CI: 1.06, 8.89) or if SPs encouraged Veterans to face things previously avoided (OR = 3.02; 95% CI: 1.13, 8.05). If SPs believed TFT was a credible treatment, Veterans were more committed to treatment and were, therefore, more likely to complete homework (bootstrapped indirect effect: B = .09, 95% CI: .03-.16). In contrast, the degree to which SPs discouraged Veterans from approaching trauma-reminders was associated with reduced Veteran perception of treatment credibility, which, in turn, predicted poorer treatment attendance (bootstrapped indirect effects: B = -.26, 95% CI: -.51 through -.06). Overall, findings indicate family awareness of and beliefs about TFTs, and family behaviors in response to Veteran avoidance, influenced TFT adherence.

Symposium
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Salon F-H – Neuro Track

Neurobiological Mechanisms of Posttraumatic Stress Disorder and Associated Medical Comorbidities
(Bio Med, Health-Bio/Int, Adult, M, Industrialized)

Japuntich, Sandra, PhD
National Center for PTSD, VA Boston Healthcare System,
Boston University School of Medicine, Boston,
Massachusetts, USA

Trauma exposure and posttraumatic stress disorder (PTSD) are associated with higher prevalence of several medical comorbidities including cardiovascular, autoimmune, pulmonary, cancer and pain disorders. Individuals with PTSD are also less likely to engage in health promotion behaviors (e.g., exercise) and are more likely to engage in behaviors associated with poor health (e.g., smoking). The current symposium will examine mechanisms by which trauma exposure and PTSD lead to poor health. Dr. Scioli-Salter will present on potential shared neurobiological mechanisms of chronic pain and PTSD, measured during an exercise stress test, along with neurobiological relationships to pain sensitivity. Dr. Japuntich will present on withdrawal related changes in neurobiology among smokers with and without PTSD and their association with abstinence. Dr. Gregor will present on clustering of PTSD with chronic pain, tobacco use and depression. Dr. Marx will present on the association of PTSD with relevant inflammatory markers. The discussant, Ann Rasmussen, will provide an overview of current knowledge regarding neurobiological mechanisms of comorbidity and lead a discussion of the implications and future directions of this work. Implications will focus on reducing risk of medical comorbidities among individuals with PTSD.

Potential Neurobiological Mediators of Exercise Benefits for Pain Sensitivity in Chronic Pain and PTSD
(Bio Med, Health, Adult, M, Industrialized)

Scioli-Salter, Erica, PhD1; Forman, Daniel, MD1; Allsup, Kelly, BS2; Marx, Christine, MD3; Hauger, Richard, MD3; Rasmussen, Ann, MD1
1VA, Boston, Massachusetts, USA
2VA Boston Healthcare System, Boston, Massachusetts, USA
3Duke University Medical Center/Durham VAMC, Durham, North Carolina, USA
4University of California, San Diego, La Jolla, California, USA

This pilot study assessed the effects of a symptoms-limited cardiopulmonary exercise stress test on neuropeptide Y (NPY), allopregnanolone and pregnanolone (ALLO) and their association with pain threshold and tolerance, indicators of pain sensitivity, as measured by the cold pressor test, ~30
minutes after exercise. Two groups were compared: a) healthy trauma-exposed participants b) participants with comorbid chronic pain and PTSD. The total study population (N=12; mean age 38 years) was 58.3% male (n=7); 25% Veterans (n=3). Across the study population, peak oxygen consumption (VO2) correlated with baseline NPY levels (r=.-66, p<.05). NPY levels at the peak of exercise correlated with pain threshold (r=.-65, p<.05). Peak VO2 correlated with peak levels of ALLO 30 minutes after exercise (r=.-71, p<.01), as well as change in ALLO from pre-exercise to 30 minutes after exercise (r=.-89, p<.001). These data suggest that cardiorespiratory fitness (CRF), as measured by peak VO2, is associated with NPY and ALLO which are, in turn, associated with reductions in pain sensitivity. In ongoing investigations we are studying these relationships in a larger study population as well as the utility of progressive exercise training to increase CRF, thereby to increase the capacity for NPY and ALLO release to thereby moderate chronic pain in PTSD patients.

Tobacco Cessation Related Changes in GABAergic Neuroactive Steroids and NPY Predict Withdrawal and Abstinence in Trauma-exposed Smokers with and without PTSD

(Japuntich, Sandra, PhD1; Gregor, Kristin, PhD2; Marx, Christine, MD3; Pineles, Suzanne, PhD1; Rasmusson, Ann, MD1

1National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA
2National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
3VA Medical Center, Durham, North Carolina, USA

Individuals exposed to trauma and with posttraumatic stress disorder (PTSD) are more likely to use tobacco. Dysregulation in the HPA axis associated with tobacco use, trauma exposure and PTSD may help explain this comorbidity. The current study (N=50) examined changes in adrenally-derived compounds in reaction to tobacco cessation and in relation to withdrawal. Plasma levels of the GABAergic neuroactive steroids, allopregnanolone plus pregnanolone (ALLO), increased more during initial cessation (day 2 post-quit) in the PTSD vs. control group: F(1,36)=5.11; p<.05. Among participants with PTSD, ALLO increases were negatively correlated with withdrawal symptoms (r=-.59, p<.05). Increased NPY from baseline to day 5 post-quit was negatively associated with 1 week abstinence in the control group (OR= .31; p<.05). NPY is released in response to acute smoking as well as stress; increases during early cessation may reflect responses to stress or a lapse in abstinence. ALLO may protect against tobacco withdrawal symptoms in smokers with PTSD. Smoking cessation treatments targeting the allopregnanolone and NPY systems may benefit trauma-exposed smokers.

Chronic Tobacco Use Enhances the Clustering and Severity of PTSD and Comorbid Conditions

(Gregor, Kristin, PhD1; Fonda, Jennifer, MA2; Fortier, Catherine, PhD2; McGlinchey, Regina, PhD3; Rasmusson, Ann, MD1

1National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
2Boston VA Healthcare System, Boston, Massachusetts, USA
3Harvard Medical School & VA Boston Healthcare System, Boston, Massachusetts, USA

Underlying deficits in broad impact neurobiological factors, such as neuuropeptide Y (NPY) and allopregnanolone, may help to explain the relationship between posttraumatic stress disorder (PTSD) and PTSD-comorbid conditions such as pain and depression. Tobacco use may increase risk for these conditions by impacting similar neurobiological pathways. To date, most research has examined the impact of tobacco use on these disorders separately. The current study examined the impact of nicotine dependence on the clustering of PTSD with pain and depression in a sample of returning Veterans (n= 383, Mage = 32.23, SD = 6.61, 90.4% male, 16.4% nicotine dependent). Veterans with nicotine dependence were substantially more likely to report the cluster of PTSD, pain and depression than any individual condition or pair-wise combination of these conditions than those without nicotine dependence (ORs ranged from 2.44 to 3.89; p < 0.05). Nicotine dependence was also associated with greater severity of each condition. Findings were similar after adjusting for combat exposure and lifetime drinking. A mechanistic model by which chronic tobacco use may promote PTSD comorbidity and the severity of these conditions will be presented.

Neurosteroids and Pain Symptoms in OEF/OIF/OND Veterans - Biomarkers to Therapeutics

(Marx, Christine, MD

VA Medical Center, Durham, North Carolina, USA

Pain symptoms are common among OEF/OIF/OND era Veterans, many of whom continue to experience persistent pain despite multiple pharmacological interventions. Preclinical data suggest that neurosteroids such as allopregnanolone and dehydroepiandrosterone (DHEA) demonstrate analgesic actions, and thus represent logical biomarker candidates and new therapeutic targets for pain. We quantified allopregnanolone and other neurosteroids by mass spectrometry in serum samples from 485 male OEF/OIF/OND Veterans, and DHEAS and DHEA levels by radioimmunoassay in serum samples from 403 female OEF/OIF/OND Veterans. Pain symptoms were assessed by items from the Symptom Checklist-90R querying headache, chest pain, muscle soreness, and low back pain. Associations between pain ratings and neurosteroid levels were examined with Poisson regression analyses, controlling for age and smoking. Non-parametric
Mann-Whitney analyses were also conducted. Allopregnanolone levels were inversely associated with muscle soreness (p = 0.0028), chest pain (p = 0.032), and aggregate total pain (sum of all four pain items) [p = 0.0001] in male Veterans. DHEAS levels were inversely correlated with low back pain in female OEF/OIF/OND Veterans (p = 0.04). Allopregnanolone and DHEA may function as endogenous analgesics, and exogenous supplementation with these neurosteroids could have biomarker and therapeutic potential.

Panel Presentation
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Balcony J-K – Other Interventions Track

NCTSN’s Implementation Summit: Synthesis of Findings to Bring Trauma Best Practices to All Providers
(Train/Ed/Dis, Clin Res, Prof, M, N/A)

Amaya-Jackson, Lisa, MD, MPH1; Ake III, George, PhD2; Halladay Goldman, Jane, PhD, MSW2; Briggs, Ernestine, PhD1
1National Center for Child Traumatic Stress, Durham, North Carolina, USA
2Duke University Medical Center, Durham, North Carolina, USA
3National Center for Child Traumatic Stress, Los Angeles, California, USA

In May 2015, The National Child Traumatic Stress Network will host an Implementation Summit to engage NCTSN members most experienced with evaluating implementation, implementing evidence-based treatments/trauma-informed practices to help clarify terms/issues identified through the processes of implementation and sustainability of these practices. The National Center for Child Traumatic Stress received 100+ applications for approximately 70 slots for the summit and workgroups tailored to applicant of interest and expertise. This panel presentation will highlight findings from workgroups designated to address child trauma implementation challenges in 1) Adopting and Sustaining Evidence-based Treatments in Agencies 2) Engaging and Successfully delivering Trauma-Informed Practices 3) Evaluation Standards of Practice for NCTSN Implementation of Evidence-based Interventions. Shared recommendations will include assessment of clinician & organizational readiness; benchmarks for EBT fidelity monitoring and adherence to implementation science principles; and evaluating maintenance of post-training EBT performance quality. Tools identified to enhance strategic planning for next stages of implementation of NCTSN’s EBTs and practices will be presented including recommendations for integrating research findings from the implementation science field into practice of sites across the country.

Symposium
Thursday, November 5
2:45 p.m. to 4:00 p.m.
Balcony L-M – Other Interventions Track

Increasing Implementation of Outcomes Monitoring in PTSD Treatment: The PTSD Practice-Based Implementation Network
(Train/Ed/Dis, Train/Ed/Dis-Mil/Vets, Prof, I, N/A)

Ruzek, Josef, PhD
VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

The PTSD Practice-Based Implementation (PBI) Network has been established in the U.S. Departments of Veteran Affairs (VA) and Defense (DoD) healthcare systems to facilitate ongoing rapid implementation of best practices in the treatment of PTSD. The Network uses qualitative and quantitative methodologies to enable the efficient study of factors affecting adoption of practices. The first project was designed to increase mental health outcomes monitoring in 18 VA and 10 DoD PTSD treatment settings, including specialty PTSD, general mental health, and primary care clinics. Two implementation strategies, technical assistance and external facilitation, were used to support adoption of this best practice and encourage measurement-based decision-making. This presentation describes the rationale and design of the PTSD PBI Network, implementation strategies, lessons learned in development and operation of the system, and qualitative and quantitative results of program evaluation. Results indicate that key barriers to implementation of outcomes monitoring in routine clinical care include lack of an efficient data entry technology, need for training in use of measures, and absence of cost-effective systems for aggregating data and presenting information to clinicians.

US VA/DoD Practice Based Implementation Network (PBIn): Developmental and Operational Lessons Learned
(Practice, Clinical Practice-Train/Ed/Dis-Mil/Vets, Prof, I, Industrialized)

McGraw, Kate, PhD
Department of Defense, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, Silver Spring, Maryland, USA

Treatment of PTSD is one of the highest priorities for both the US Department of Defense (DoD) and Department of Veterans Affairs (VA). Despite a clear need for widespread delivery of effective mental health (MH) treatment, evidence-based treatments (EBTs) consistent with VA-DoD Clinical
Practice Guidelines may not be the standard of care in many treatment settings (Rosen et al., 2004). Evidence from implementation science research suggests organizations routinely underestimate difficulties in changing provider behavior, and as many as two-thirds of organization efforts to implement change may fail (Burnes, 2004). The PBIN assists the DoD and VA to identify and address barriers that limit impact of clinician adoption of new practices/programs, prior to initiating national program dissemination. The PBIN consists of a 20-clinic PBIN and joint website to assist with cost-effective implementation of ongoing practice changes in mental health care, by avoiding the substantial expenses of separate implementation initiatives for each single new practice change. Lessons learned within PBIN will inform new national implementation initiatives and roll-outs to maximize clinician uptake. This portion of the symposium will address the developmental and operational challenge and lessons learned as the DoD and VA worked together to develop this joint network across healthcare systems.

Program Evaluation within a Practice-Based Implementation Network: Quantitative and Qualitative Results of Routine Outcomes Monitoring Implementation

McGee-Vincent, Pearl, PsyD1; Landes, Sara, PhD1; Rosen, Craig, PhD2; Calhoun, Patrick, PhD2; Zimmerman, Lindsey, PhD2; McGraw, Kate, PhD4; Walser, Robyn, PhD4; Runnals, Jennifer, PhD4; Liu, Nancy, PhD4; Nottis, Khoa, BA3; Ruzek, Josef, PhD5
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2VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA
3Durham VA Medical Center, VISN 6 MIRECC, Duke University School of Medicine, Durham, North Carolina, USA
4Department of Defense, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, Silver Spring, Maryland, USA
5National Center for PTSD, Dissemination and Training Division University of California, Berkeley, Menlo Park, California, USA

The Practice-Based Implementation (PBI) Network is a collaboration between stakeholders (providers, researchers, and leadership) in the Department of Veterans Affairs (VA) and Department of Defense (DoD) to study implementation of clinical practice changes on a national scale. Using Facilitation as a primary implementation strategy, the network aims to increase uptake of best practices in PTSD treatment while studying barriers and facilitators to implementing change. Providers from 10 VA and 10 DoD clinics participated in the first PBI Network practice change: implementation of routine outcomes monitoring. Using the PARIHS framework, this quality improvement initiative qualitatively and quantitatively examined factors that facilitate or impede implementation. Survey results indicated that participating providers held positive attitudes towards assessment at baseline, although most did not report using standardized measures (e.g., PCL, PHQ-9) routinely with the majority of their patients. Context factors (including access to resources, IT issues, and perceived leadership support) emerged as key barriers to implementation. This presentation will provide an overview of qualitative and quantitative results on the impact of the facilitation intervention, as well as identified implementation barriers and facilitators that may be generalizable to other practice changes.

Implementation Strategies in the Practice-Based Implementation (PBI) Network

Walser, Robyn, PhD1; McGee-Vincent, Pearl, PsyD2; Runnals, Jennifer, PhD3; Liu, Nancy, PhD4; Ruzek, Josef, PhD4; Smith, Jeffrey, PhD(c)5; Kirchner, JoAnn, MD5
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3Durham VA Medical Center, VISN 6 MIRECC, Duke University School of Medicine, Durham, North Carolina, USA
4VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA
5VA Mental Health Quality Enhancement Research Initiative (QUERI), Central Arkansas Veterans Healthcare System, North Little Rock, Arkansas, USA

A national PTSD Practice-Based Implementation (PBI) Network was designed to improve implementation of best and promising practices in PTSD treatment settings in the Department of Veterans Affairs (VA) and Department of Defense (DoD). For the first PBI Network initiative, 18 VA and 10 DoD clinics took part in a quality improvement project to implement routine PTSD clinical outcomes monitoring, a basic yet fundamental practice recommended by the VA/DoD clinical practice guidelines (CPGs). The primary implementation strategies used were training and facilitation. Training was designed to address knowledge gaps by providing clinicians with the necessary skills to administer and interpret the newly released PTSD Checklist (PCL-5) and use outcomes data to inform clinical decision-making per CPG recommendations. Facilitation is a diverse set of activities designed to leverage stakeholder relationships and overcome barriers to implementation through interactive problem solving. Facilitation activities included development of implementation plans, technical assistance, and collaboration with a clinic champion. This presentation will provide an overview of these implementation strategies, how they were used to identify and address barriers, and the adaptation of these strategies into a manual for future studies.
Concurrent Session 4

Symposium
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Galerie 2 – Cognitive Processes/Interventions Track

Cognitive Processing Therapy: Expanding the Horizons
(Clin Res, Clinical Practice-Fam/Int-Mil/Vets, Lifespan, I, Industrialized)

Chard, Kathleen, PhD1; Monson, Candice, PhD2; Cpsyh3
1Cincinnati VA Medical Center, Cincinnati, Ohio, USA
2Ryerson University, Toronto, Ontario, Canada

In this symposium, three presenters will provide data from their randomized controlled trials that advances the research and clinical knowledge base regarding Cognitive Processing Therapy (CPT) in three novel areas. In the first presentation we will discuss data from the first study to integrate CPT and Trauma Focused-Cognitive Behavioral Therapy (TF-CBT) into a single therapy designed to help families and children who are both suffering from PTSD. The second study will provide data that compares group and individual CPT with active duty service members. This is the first study comparing these two modalities and the first CPT study with active duty service members. The final study will offer data from the first study comparing CPT and Present Centered Therapy with male combat Veterans who served in Iraq and/or Afghanistan. All of these presentations will not only present their outcome data but also provide insights for how they extend the current literature base on CPT. Finally, Dr. Candice Monson, one of the co-authors of CPT, will discuss the implications of these three studies for future research and clinical work utilizing CPT.

Individual versus Group Cognitive Processing Therapy in an Active Military Sample
(Clin Res, Mil/Vets, Adult, I, Industrialized)

Resick, Patricia, PhD1; Wachen, Jennifer, PhD2; Mintz, Jim, PhD3; Donadanville, Katherine, PsyD4; Pruksma, Kristi, PhD5; Yarvis, Jeff, PhD, MSW6; Peterson, Alan, PhD7
1Duke University Medical Center, Durham, North Carolina, USA
2National Center for PTSD / Boston University, Boston, Massachusetts, USA
3University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA
4University of Texas Health Science Center at San Antonio, Fort Hood, Texas, USA
5 Ft. Belvoir Community Hospital, Fort Belvoir, Virginia, USA

Although Cognitive Processing Therapy (CPT) was originally developed as a group treatment, most research has examined CPT as individual treatment. This RCT of CPT-C (without written trauma accounts) compares group with individual therapy among active military. Participants were assessed before and after treatment, weekly during treatment and at two follow-ups. Therapy is complete but follow-ups will not all be completed until 2016. Groups were conducted for 90 minutes and individual treatment was 60 minutes. The PTSD Checklist (PCL) and the Beck Depression Inventory (BDI-2) were given at major assessments periods and weekly during treatment. Treatment included 12 sessions conducted twice weekly. Findings with 268 participants from pre to posttreatment (N= 135 individual; 133 group) indicate that individual therapy is more efficacious than group treatment, especially for PTSD, less so for depression although individually treated participants had a large effect size improvement on PTSD and medium on depression. Group also improved significantly. At posttreatment, 39% of group and 47% of individual CPT-C participants lost their PTSD diagnosis. Because this trial was conducted during a period when the military was downsizing, we had more “drop-outs” than are typically seen or were seen in a previous study at the same base during the wars. This will be discussed.

Integrating CPT for Caregivers into a Trauma-informed Model of Care for Families Experiencing Multiple Traumas across Generations
(Clin Res, Chronic-Clinical Practice-Fam/Int-Intergener, Lifespan, I, N/A)

Galovski, Tara, PhD; Philip, Held, PhD
University of Missouri St. Louis, St. Louis, Missouri, USA

Evidence-based practices such as cognitive processing therapy (CPT) for adults and trauma-focused cognitive behavioral therapy (TF-CBT) for children have demonstrated significant individual success in treating posttraumatic stress disorder (PTSD) and depression. Complications can emerge during the course of these therapies when the patients’ family members are also suffering from trauma symptoms. In working with adults, clinicians often note that the patient’s child’s age, developmental stage, or experiences can trigger the adult’s trauma symptoms. Likewise, therapists administering TF-CBT can experience caregivers’ trauma symptoms as interfering with the child’s progress. The Families Learning About REcovery Strategies (FLARES) model was developed to integrate CPT and TF-CBT into a single model for treating caregivers and children suffering from PTSD. The goals are to decrease children and caregiver’s PTSD and depression through therapy and to indirectly, positively influence family environment. This presentation will describe the FLARES model across 4 different subsets of trauma types across 49 families. We will quantify the family environment (McMaster), quality of life (QOLI), and then track change in adults within this model across PTSD (PDS) and depression (BDI-II). Preliminary analyses indicate improvement in PTSD (p = .004) and depression (p = .001) to date.
Cognitive Processing Therapy and Present Centered Therapy in Returning Combat Veterans: Equally Effective?
(Clin Res, Mil/Vets, Adult, I, Industrialized)

Chard, Kathleen, PhD1; Schumm, Jeremiah, PhD2; Resick, Patricia, PhD2; Monson, Candice, PhD, Cpsych4
1Cincinnati VA Medical Center, Cincinnati, Ohio, USA
2Cincinnati VA Medical Center & University of Cincinnati, Cincinnati, Ohio, USA
3Duke University Medical Center, Durham, North Carolina, USA
4Ryerson University, Toronto, Ontario, Canada

This presentation will provide data from the first randomized controlled trial of Cognitive Processing Therapy (CPT) and Present Centered Therapy (PCT) in 89 male combat Veterans who served in Iraq and/or Afghanistan. Neither of these treatments have been studied individually or together with returning US combat service members prior to this study. Both treatments were found to be effective in treating PTSD, based on the Clinician Administered PTSD Scale (d = .55, p<.001) and related symptoms such as depression, based on the Beck Depression Inventory (d = .46, p<.001) from pre to post-treatment (p<.01). These gains were maintained at both 3-month and 1-year follow-up assessments. The presentation will discuss differences between the two treatments on measures of PTSD, depression, anxiety, guilt and anger and will offer suggestions for the future treatment of returning combat Veterans.

Symposium
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Galerie 3 – Affective Processes/Interventions Track

Biological Studies in Traumatized Children and Adolescents

Lindauer, Ramón, MD, PhD
Academic Medical Center, University of Amsterdam, Amsterdam, Noord-Holland, Netherlands

This symposium consists of four presentations about biological studies in traumatized children and adolescents. The first presentation is about the genetics of PTSD in children and adolescents, and the epigenetic changes after treatment. In the second presentation the findings of hair cortisol in relation to acute and post-traumatic stress symptoms in children and adolescents will be presented. The third presentation is a systematic review of the literature of neural correlates of treatment for PTSD. The last presentation is an fMRI treatment outcome prediction study in children with PTSD.

(Epi) Genetics and Response to PTSD Treatment in Children
(Clin Res, Acute-Complex-Dev/Int-Genetic, Child/Adol, M, Global)

Ensink, Judith, PhD Candidate1; Henneman, Peter, PhD1;
Mannens, Marcel, Prof, Dr1; Lindauer, Ramón, MD, PhD2
1Academic Medical Center, Amsterdam, Noord-Holland, Netherlands
2Academic Medical Center, University of Amsterdam, Amsterdam, Noord-Holland, Netherlands

Environmental regulation may influence biological mechanisms throughout life, for example genetics and epigenetic change. In children with Posttraumatic Stress Disorder (PTSD) a clear environmental influence is exposure to a traumatic event. But also psychotherapy could be a form of ‘environmental regulation’ that may influence (epi)genetics. Findings related to gene expression and DNA methylation during or after psychotherapy may provide useful information of potential underlying mechanisms. If we have more insight into these mechanisms, this could influence the development of new interventions and more customized care. Therefore we will present a systematic literature search investigating the role of (epi) genetics in response to psychotherapy. Furthermore we will present data (N=45) of genetics in response to Eye Movement Reprocessing Therapy (EMDR) and Trauma-focused cognitive behavioral therapy (TF-CBT). We obtained saliva from single and chronic traumatized children to determine if selected candidate genes related to HPA-axis functioning can predict or associate with treatment outcome, comparing responders defined by no longer meeting the diagnostic
criteria of PTSD after 8 treatment sessions and non-responders. We will discuss our proposal examining the role of methylation levels as a potential mechanism of change, and end with the clinical relevance of our findings.

Hair Cortisol in Relation to Acute and Post-Traumatic Stress Symptoms in Children and Adolescents

Goldbeck, Lutz, PhD1; Klaubert, Lena, MD2; Steudte-Schmiedgen, Susann, PhD3; Kirschbaum, Clemens, PhD4; Straub, Joana, MS1
1University Ulm, Ulm, Baden-Württemberg, Germany
2University Hospital Ulm, Ulm, Baden-Württemberg, Germany
3University of Dresden, Dresden, Germany
4Technical University Dresden, Dresden, Sachsen, Germany

We investigated whether hair cortisol concentration (HCC) is predictive of stress symptoms in response to accidental trauma and whether traumatic events are reflected in altered cortisol levels in a clinical population with distal traumatic events. HCC in a scalp near 3 cm hair segment was analyzed in two samples: a) 35 youth hospitalized after an accident and b) 22 youth with a history of interpersonal traumatic events with an average 27 months since trauma. Stress symptoms were assessed by clinical interviews (CAPS-CA). HCC in the group with a recent history of accidents was significantly higher than HCC in patients with distal trauma (z = 2.80, p = .009). In general, HCC was neither predictive for acute nor for posttraumatic stress symptoms 6-8 weeks after the accident. Differential analyses showed significant correlations of HCC with acute symptoms of dissociation (r = -.84, p = .001) and post-traumatic symptoms of hyperarousal (r = -.74, p = .006) in girls. In youth with distal traumatic events no associations were seen between HCC and total posttraumatic stress symptoms, however, HCC negatively correlated with symptoms of hyperarousal (r = -.44, p = .04). The results are consistent with the down-regulation of cortisol excretion after chronic stress. Lower HCC predicts dissociation and hyperarousal after an accidental trauma in girls.

Neural Correlates of Treatment for PTSD: A Systematic Review of the Literature
(Bio Med, Clin Res-Neuro, Lifespan, M, Industrialized)

Straub, Joana, MS; Abler, Birgit, PhD; Goldbeck, Lutz, PhD
University Ulm, Ulm, Baden-Württemberg, Germany

Trauma-focused psychotherapy is the gold standard when it comes to the treatment of PTSD. A better understanding of underlying neurobiological markers might help to predict therapeutic success. This review summarizes research on neural correlates of PTSD treatment. A systematic literature search was done to identify studies published until February 2015. Overall, ten studies about neural correlates of PTSD treatment in adults were retrieved. Seven studies compared pre-to-post intervention signal changes and three studies related pre-treatment activity with pre-to-post symptom improvement. Two studies applied a waitlist control design and one study compared signal changes to a healthy control group. Results indicated a pre-to-post treatment signal reduction of previously elevated activity levels within the insula and amygdala. Previously reduced neural activity of the hippocampus and the rostral anterior cingulate rose from before to after treatment. Furthermore pre-to-post signal changes within the rostral anterior cingulate and amygdala correlated with symptom improvement. So far all studies were done in adults. There is evidence from studies with adults for treatment-related changes in CNS activity. Due to developmental considerations, there is a need for further studies aiming to investigate neural correlates of PTSD treatment in adolescents as well.

Predicting Treatment Outcome of Trauma Focused Psychotherapies in Children and Adolescents with PTSD; a Machine Learning Based fMRI Study

Zantvoord, Jasper, MD1; Ensink, Judith, PhD Candidate1; Lindauer, Ramón, MD, PhD2
1Academic Medical Center, Amsterdam, Noord Holland, Netherlands
2Academic Medical Center, University of Amsterdam, Amsterdam, Noord-Holland, Netherlands

In half of the children with PTSD, symptoms do not remit despite adequate first line treatment. Treatment non-response leads to prolonged suffering and increased health care costs. Identifying children who are at greatest risk of non-response might guide personalized treatment decisions. Although neurobiological markers such as fMRI and physiological measures have been used in adults with PTSD, none have approached clinical significance and no such studies in children with PTSD have been performed. In other areas of psychiatry, especially in electroconvulsive treatment in MDD recent studies using machine learning have produced promising results. One such study showed high classification accuracy, with a sensitivity of 84% and specificity of 85%. In order to test if we could approach this classification accuracy we performed the first machine learning based fMRI treatment outcome study in children with PTSD. We included children aged 8-17 fulfilling DSM IV criteria for posttraumatic stress disorder. Children were treated with 8 sessions of TF-CBT or EMDR. CPS-CA and CRIES were performed before and after treatment, fMRI scans were collected before psychotherapy. We extracted resting-state networks and used multivariate pattern analysis to identify networks that predicted recovery from PTSD. Resting-state fMRI data of 40 children treated at our department are presented.
Peritraumatic dissociation (PD) and avoidant coping (AVC) predict PTSD symptoms (PTSS) following traumatic injury. Though AVC has served as a mediator between PD and PTSS following motor vehicle accidents (MVAs; Pacella et al., 2011), it has yet to be demonstrated that PD is related to the experience of daily PTSS in recent injury victims of varied traumas (MVAs, assaultive violence, etc.), and that daily coping behaviors can help to explain this relationship. Daily tracking may inform the timing/content of intervention. Sixty-eight injury victims completed the Peritraumatic Dissociative Experiences Questionnaire (Marmar et al., 1997) within 2-weeks post-trauma; at 6-weeks post-injury, they completed the Short-Form PTSD-Checklist (Lang & Stein, 2005) and the Coping Responses Inventory (Lawler, et al., 2005) every morning, afternoon, and evening for 7 days. Higher PD was associated with higher levels of daily AVC (γ=0.21, p<0.001). In turn, daily AVC predicted daily PTSS (γ=0.13, p<0.001) experienced later in the day. Further, daily AVC served as a mediator between PD and subsequent daily PTSS (γ=0.04, p<0.001, BC 95% CI=0.02, 0.07). These findings highlight that early (and daily) response characteristics are predictive of PTSS in a mixed sample of traumatic injury victims; early interventions targeted at reducing avoidant coping in high dissociators may serve to reduce PTSS.

Does Reintegration Stress Contribute to Suicidal Ideation among Returning Veterans Seeking PTSD Treatment?
(Prevent, Clin Res/Sub/Abuse-Mil/Vets, Adult, M, Industrialized)

Haller, Moira, PhD; Angkaw, Abigail, PhD; Hendricks, Brittany, BA; Norman, Sonya, PhD
1VA San Diego Healthcare System, San Diego, California, USA
2San Diego VA/University of San Diego, San Diego, California, USA
3National Center for PTSD, San Diego, California, USA

Although PTSD and other psychiatric symptoms are well-established risk factors for suicidality among returning veterans, less attention has been paid to whether the stress of reintegrating into civilian society contributes to suicidality. Utilizing a sample of 232 returning veterans seeking PTSD treatment (95% male, mean age = 33.63 years), this study tested whether reintegration difficulties contribute to suicidal ideation over and above the influence of PTSD symptoms, depression symptoms, and substance misuse. Logistic regressions indicated that reintegration stress had a unique effect on suicidal ideation over and above PTSD and depression symptoms. Reintegration stress interacted with substance misuse, such that the effect of reintegration stress on suicidal ideation was much larger for those with substance misuse. Exploratory analyses also examined which types of reintegration difficulties are most strongly associated with suicidal ideation, and found that difficulty maintaining military friendships, getting along with relatives, fitting in with civilian society, and finding purpose in life were significantly associated with suicidal ideation, beyond the effects of psychiatric symptoms and substance misuse. Findings highlight the importance of addressing reintegration stress for the prevention of suicide among returning veterans. Treatment implications will be discussed.
Victims of childhood violence have a substantial risk of revictimization in adult age, but the mechanisms involved are not well understood. The aim of this study was to investigate if shame, guilt, and social support can contribute to the risk of revictimization. At wave one, 6590 individuals aged 16-75 years participated in a telephone interview survey. From this sample, we targeted 673 violence-exposed individuals and age-and gender matched unexposed controls under age 30 for a follow-up study 12-18 months later. Measures included a broad assessment of childhood violence exposure, in addition to mental health (HSCL-10 and PCL-6), social support (CSS) and loneliness, shame and guilt (SGATS), frequency of alcohol use, background family variables, and violence exposure between wave one and two. Results showed a considerably increased risk of revictimization in victims of childhood violence (e.g. OR = 6.0, 95% CI: 3.4 – 10.1, for recent sexual abuse in CSA victims compared to victims of childhood violence (e.g. OR = 6.0, 95% CI: 3.4 – 10.1, for recent sexual abuse in CSA victims compared to victims of childhood violence (e.g. OR = 6.0, 95% CI: 3.4 – 10.1, for recent sexual abuse in CSA victims compared to non-victims). We investigate the role of shame, guilt, and social support as potential predictors of revictimization, adjusting for other relevant factors. As mental health is clearly related to the total burden of victimization, identifying factors involved in revictimization is important for prevention and clinical practice.
developed a 12 session manualized couples-based treatment, Structured Approach Therapy (SAT). SAT is designed to reduce PTSD by improving veterans’ ability to regulate trauma-related emotions as they discuss memories of deployment-related traumas with their partners. A recently completed randomized controlled trial using intent-to-treat analyses revealed that veterans with combat-related PTSD participating in SAT showed significantly greater reductions in self-rated PTSD Checklist (p<.0006) and clinician-rated (CAPS) PTSD (p<.0001) through the three-month follow-up compared to veterans and their partners receiving PTSD education (Sautter et al., in press). The study investigated the role that changes in emotional regulation played in the improvements accruing from participating in SAT in that trial. SAT was associated with greater reductions in Veteran emotional dysregulation and fear of losing control of emotions from pretreatment through follow-up; improvements in emotion regulation partially mediated SAT-associated reductions in veteran PTSD. Findings suggest that participating in a couple-based treatment that encourages returning veterans to discuss combat-related trauma with their partners may aid veterans in improving their emotional regulation.

**Effectiveness of Clinical Video Technology-Delivered Structured Approach Therapy for PTSD with OEF/OIF/OND Veterans and their Partners**

(Clin Res, Clin Res-Mil/Vets, Adult, M, Global)

Cretu, Julia, PsyD¹; Sautter, Frederic, PhD¹; Mukherjee, Snigdha, PhD²; Pribe, Alex, MA²; Glynn, Shirley, PhD²; Abel, Allison, MSW, LCSW³; Vaught, Amanda, PsyD²

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³VA Office of Mental Health Services and VA Greater Los Angeles Healthcare System, Los Angeles, California, USA

Treatment access is a critical problem in the VA: busy returning veterans who may live long distances from VA clinics are often reluctant/unable to seek help. We recently conducted a randomized controlled trial of a 12 session manualized clinic-based couple-based PTSD intervention called Structured Approach Therapy (SAT) designed especially for returning veterans and their partners (Sautter et al., in press), with positive results. To address access issues, we have conducted a pilot effectiveness trial to determine whether Clinical Video Technology (CVT) can be used to provide SAT to veterans in their homes while maintaining the efficacy of the clinic-based program. Fifteen returning veterans and their partners were invited to connect with their SAT clinician using current VA CVT technology. This pilot investigation employed a hybrid efficacy/effectiveness design to investigate: 1) whether SAT-CVT was accepted by couples as a safe useful PTSD treatment when provided in their home over a computer, and 2) whether couples participating in SAT-CVT would show clinically significant reductions in PTSD. Quantitative and qualitative data indicate SAT can be offered effectively through distance modalities and was acceptable (& even preferred) to participants; the unique challenges of using internet technologies to administer evidence-based interventions to couples will be highlighted.

**Effects of Discrepancy between Patients’ and Partners’ Reports of PTSD on Treatment Outcome in Cognitive-Behavioral Conjoint Therapy for PTSD**

(Clin Res, Fam/Int, Adult, M, Industrialized)

Snaider, Philippe, MA¹; Monson, Candice, PhD, Cpsych²; Sharma, Shankari, MA¹; Tailfeather, Stephanie, MA, PhD Student¹; Landy, Meredith, Doctoral Student²

¹Ryerson University, Toronto, Ontario, Canada
²Ryerson University, Department of Psychology, Toronto, Ontario, Canada

Patients with posttraumatic stress disorder (PTSD) and their intimate partners do not always agree with regard to their reports of patients’ PTSD symptoms. However, little is known about the effects that discrepant reports of PTSD symptoms may have on treatment outcomes. Cognitive-behavioural conjoint therapy (CBCT) for PTSD (Monson & Fredman, 2012), a 15-session manualized couple therapy, is designed to reduce PTSD symptoms and enhance relationship functioning. Psychoeducation about PTSD and enhanced communication skills are posited to decrease discrepancies in partners’ reports of symptoms. The current study examined the discrepancy between patients’ and partners’ reports of PTSD symptoms across treatment, and the effect of that discrepancy on clinician-assessed PTSD outcomes among 27 couples who completed a course of CBCT for PTSD in a randomized controlled trial. Hierarchical linear modeling revealed that discrepancy in reports decreased over time (b = –.41, p < .001). Further analyses will examine the effect of partners’ discrepancy on clinician-assessed PTSD outcomes. The efficacy of CBCT for PTSD in reducing the discrepancy between patients’ and partners’ reports of patients’ PTSD, and the effect of discrepant reports on outcomes will be discussed. These findings highlight how scientific research can inform clinical practice to improve outcomes in CBCT for PTSD.

**Multifamily Group for Veterans with Mild Traumatic Brain Injury and their Partners**

(Clin Res, Clin Res-Complex-Fam/Int-Mil/Vets, Adult, M, N/A)

Perlack, Deborah, PhD¹; Drapalski, Amy, PhD²; Muralidharan, Anjana, PhD²; Grier, Savannah, MA Student¹; Schultz, Danielle, MA¹; Riley, Stephanie, MA¹; Glynn, Shirley, PhD²

¹J. J. Peters Veterans Affairs Medical Center; Mount Sinai School of Medicine, Bronx, New York, USA
²VA Maryland Healthcare System, Baltimore, Maryland, USA
³VA Office of Mental Health Services and VA Greater Los Angeles Healthcare System, Los Angeles, California, USA

Mild traumatic brain injury (mTBI) affects up to 35% of OIF/OEF combat veterans. Those injured often report persistent somatic, emotional and cognitive post-concussive symptoms (PCS) and comorbid PTSD which exacerbates PCS. Marital conflict and distress, prevalent in over 50% of combat veterans, can delay recovery and impact quality of life. To date there have been no evidence-based mTBI family treatments; we have now adapted an evidence-based SMI intervention, Multifamily Group Treatment, to educate and mobilize veterans’ partners to support re-
integration. Multifamily Group for mTBI for military couples (MFG-mTBI-MC) includes problem-solving, compensatory strategies for cognitive deficits, emotion regulation, and couples communication skills. Building upon positive results from a pilot study, we are conducting a 3-site RCT to evaluate MFG-mTBI-MC. 180 post-911 Veterans mTBI and their partners will be randomized to receive either MFG-mTBI-MC or a multi-couple health education group. Participants will be assessed on marital coping, health (e.g., PTSD, depression), neuro and social cognition, and community integration pre-, post- and 6 months post-treatment. The results of the original MFG-mTBI-MC pilot, the rationale for the intervention, the current research design and components of MFG-mTBI-MC, and preliminary baseline data from the trial will be presented.

Child Trauma Track Paper Session
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Galerie 6 – Child Trauma Track

Examining Explanatory Models of the Link between Child Maltreatment and Adolescent Substance Use: A Prospective Study
(Clin Res, CPA-CSA-Prevent-Sub/Abuse, Child/Adol, M, Industrialized)

Kaufman, Julia, MA, PhD Student1; Wright, Margaret, PhD1; Allbaugh, Lucy, MS, PhD Student1; Folger, Susan, MA, PhD Student1; Noll, Jennie, PhD1
1Miami University, Oxford, Ohio, USA
2Penn State University, University Park, Pennsylvania, USA

Early traumatic experiences such as child maltreatment may disrupt the development of self-regulation and lead to later substance use problems. Prior research suggests two pathways through which such problems may develop (De Bellis, 2002; Kim & Cicchetti, 2010): 1) a self-medication model in which adolescents with trauma histories use alcohol and other drugs in an attempt to alleviate posttraumatic stress symptoms (PTSS); and 2) a behavioral under-control model in which self-regulatory deficits lead to externalizing behaviors and association with deviant peers, which leads to substance use. This longitudinal study explored these two pathways utilizing serial mediation analyses. Participants included 273 female adolescents with recent substantiated abuse and 204 demographically comparable peers. In model 1, dysregulation and PTSS, and in model 2, dysregulation and externalizing behaviors were examined as serial mediators of the relation between presence of substantiated abuse and later substance use. The relation between substantiated abuse and later substance use was mediated by dysregulation through PTSS, and dysregulation through externalizing behaviors, with a larger indirect effect through the externalizing pathway. The models point to specific factors to target in interventions for adolescents with maltreatment histories to prevent development of substance use problems.

American Indian Youth in Corrections: A Study for the Prevention and Reduction of Trauma
(CulDiv, Chronic-Complex-Health-Surv Hist, Child/Adol, M, N/A)

Salas-Pizaña, Silvia, Doctoral Student1; Frey, Rae Anne, Doctoral Student1; Lucci, Sonia, Doctoral Student2; Benally, Nan, Doctoral Student1; Mascari, Lauren, MA Student1; Rouse, Leah, PhD1
1University of Wisconsin - Milwaukee, Milwaukee, Wisconsin, USA
2Walter Reed Army Institute of Research/US Army,
Taking Legal Action or Not: The Influence of Legal Proceedings on the Recovery of Sexually Abused Children and of Their Non-Offending Parent
(Clin Res, CSA-Health-Social, Child/Adol, M, Industrialized)

Daignault, Isabelle, PhD1; Hébert, Martine, PhD2
1Université de Montreal, Montreal, Quebec, Canada
2Université du Quebec a Montreal (UQAM), Montréal, Quebec, Canada

Child advocacy centers (CAC) provide a coordinated team approach to the problem of child abuse. The coordination of multi-sectorial intervention is believed to sustain judiciary implication and children’s trauma recovery, yet the beneficial effects of such an approach have only scantily been evaluated (Finkelhor, 2007). To contribute to this area of research, an analysis of the social and judiciary trajectories of sexually abused children consulting in the only CAC in Quebec was undertaken. This paper explores the influence of legal proceedings on the recovery of the child and of his or her parent. First, it will compare characteristics of sexually abused children (ages 6 to 12) for whom legal procedures were undertaken, including 55 cases of children testifying in court, to those who took no legal action. Children’s and parent’s outcomes were evaluated by means of self-reports of depression and post-traumatic stress symptoms, parental reports of behavioral problems and children’s perception of parental support. Contrary to expectations, children who testified in Court presented with lower PTSD scores compared to children who did not testify. The specific challenges experienced by children and non-offending parents involved with court procedures will be highlighted by case studies.

Family Matters: Family Support and Trauma Exposure in Sexual Minority Youth
(CulDiv, Orient, Lifespan, I, Industrialized)

Minshew, Reese, MA, PhD Student1; Burns, Michelle, PhD2; Weis, Ben, BA2; Mustanski, Brian, PhD3
1New School for Social Research, New York, New York, USA
2Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA
3Northwestern University, Chicago, Illinois, USA

The majority of trauma exposure in the United States is chronic, and takes place in the context of compromised caregiving. Moreover, sexual minority status is significantly associated with elevated exposure to early life trauma. One possible mechanism is that withdrawal of family support exposes LGBTQ youth to risk of maltreatment from individuals outside the family. The current study used latent components growth analysis (LCGA) to identify trajectories of family support in a community-based sample of 248 sexual minority youths between ages 16 and 20 at baseline. Family support was assessed via the Family Support scale of the Multidimensional Scale of Perceived Family Support (MSPSS). The MSPSS was administered at baseline, at 1-year follow-up, and at 1.5-year follow-up. LCGA suggested a two-class model, one with a low and rising trajectory and one with a high and falling trajectory. Exposure to traumatic stress was assessed via the Computerized Diagnostic Interview Schedule. The high and falling LCGA class reported exposure to significantly more types of traumatic stressors at 4-year follow-up, after controlling for trauma exposure at baseline (p = .04, d = .66). These findings suggest that withdrawal of family support exposes LGBTQ youth to an array of traumatic experiences.
This study also illustrates that a careful analysis of specific CpG sites might distinguish between direct effects of childhood adversity and parental exposure. This is the first demonstration of an epigenetic transmission from the biological, epigenetic and psychosocial perspectives. The discussion will focus on areas of overlap, endeavor to present an integrative approach to the findings with a view toward collaborative research, and suggest clinical and community implications.

**Genes’ Expression in Holocaust Survivors and Their Own Offspring**

Yehuda, Rachel, PhD; Bader, Heather, BS; Daskalakis, Nikolaos, PhD, MD; Bierer, Linda, MD

This presentation will report pilot data from 40 Holocaust survivor families (Holocaust survivors and their own offspring) and controls in which FKBPS gene methylation and its neuroendocrine correlates were obtained from blood. FKBPS is a protein that inhibits binding to the glucocortocoid receptor and has been implicated in child trauma, PTSD, and depressive disorder. Holocaust exposure had an effect on both Holocaust survivors and their own offspring, yet the effects were in opposite directions (FKBP5 methylation was increased in Holocaust survivors and decreased in their offspring). In Holocaust offspring, there was an interaction between childhood trauma and the presence of FKBPS genotype on FKBPS methylation, but at a different site. This is the first demonstration of an epigenetic transmission from adult parent to adult child in humans. This study also illustrates that a careful analysis of specific CpG sites might distinguish between direct effects of childhood adversity and parental exposure.

**Behavioral, Biological, and Epigenetic Consequences of Early Social Experiences in Monkeys**

Suomi, Stephen, PhD
National Institute of Health, Bethesda, Maryland, USA

It is now well-established that the type of early social attachment relationships of rhesus monkey infants form with their caregivers can have dramatic behavioral, biological, and epigenetic consequences throughout development. Recent research has focused instead on the consequences of being raised by mothers who differ in their social dominance status. There are major differences in both social opportunities on a daily basis and long-term physical and psychological health outcomes between offspring of high vs. low-ranking mothers, and it appears that relative social dominance status is generally transmitted from mothers to their female offspring, i.e., high-ranking mothers typically rear daughters who themselves are high-ranking, at least initially, and low-ranking mothers usually have daughters who turn out to be low-ranking themselves. Very recent data suggest that such cross-generational transmission of relative dominance status may be in part epigenetically mediated through the placenta.

**Revealing, Capturing and Studying Meaning in Holocaust Trauma**

Yael, Danieli, PhD
Director of the Group Project for Holocaust Survivors and Their Children, New York, New York, USA

This presentation will focus on the role of trauma-derived meaning in understanding multigenerational transmission of trauma. It will describe a heretofore missing, contextually meaningful, multidimensional inventory, developed in English and Hebrew for use with Holocaust survivors’ children and grandchildren in three parts: I. posttrauma adaptational styles, children’s perceptions of each parent and their own upbringing; II. reparative adaptational impacts, the child’s views of him/herself; and III. A four-generational history and sociodemographic description. In an international web-based study of 484 adult children of survivors, we found that multigenerational legacies of Holocaust trauma can be measured in community samples. Victim, Numb, and Fighter Adaptational Styles underlined the diverse coping strategies adopted by survivors. With proper adaptations, the Inventory could be used to study adult children of survivors of mass trauma other than the Holocaust. Its greatest potential lies in facilitating research on mechanisms of transmission and moderators of impacts. As for mechanisms, our data suggest that parents’ posttrauma adaptational styles may partially explain how parents’ traumatic experiences are transmitted to their children. The scales could also guide clinicians working in identifying and exploring the meanings and roots of their patients’ life experiences.
Symposium
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Salon D – Military Track

Relationship under Fire: Dyadic Processes in Adjustment and Treatment of Military Couples across the Combat Deployment Cycle
(Prevent, Fam/Int-Health-Mil/Vets, Adult, A, Industrialized)

Gewirtz, Abigail, PhD, LP
University of Minnesota-Twin Cities Campus, St Paul, Minnesota, USA

Reintegration following deployment to a war can be a challenging and somewhat tumultuous time for many military couples. Marital relationships promote good physical and mental health, and can ease the transition back into civilian life. This symposium showcases new observational, prospective and longitudinal methods to examine dyadic influences of personality, social support and communication skills between military couples for psychological and marital functioning across the deployment cycle. The data suggest that veterans’ and their partners’ personality characteristics, social support, and communication skills are a significant source for veterans’ and their spouses’ adjustment following deployment. The findings offer new perspectives on intervention and prevention programs for military couples that may be tailored to each member of the dyad across different stages in the deployment process.

Understanding Distinct Trajectories of Intimate Partner Adjustment across the Deployment Cycle
(Clin Res, Fam/Int-Mil/Vets, Adult, A, Industrialized)

Polusny, Melissa, PhD; Erbes, Christopher, PhD, LP; Arbisi, Paul, PhD, ABPP; DeGarmo, David, PhD; Kramer, Mark, PhD; Hagel-Campbell, Emily, MS; Bangert, Ann, BA/BS; Vogt, Dawne, PhD

1Minneapolis VAHCS, Center for Chronic Disease Outcome Research, University of Minnesota Medical School, Minneapolis, Minnesota, USA
2Minneapolis VA Health Care System and University of Minnesota Medical School, Minneapolis, Minnesota, USA
3University of Oregon, Eugene, Oregon, USA
4Minneapolis VA Health Care System, Minneapolis, Minnesota, USA
5Center for Chronic Disease Outcomes Research, Minneapolis VA Medical Center, Minneapolis, Minnesota, USA
6National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA

Deployment dyadic adjustment. 1,020 Soldier-partner dyads completed valid, reliable measures of risk and resilience (i.e., personality, individual and family stressors, social support), mental health and dyadic adjustment before Soldiers’ deployment to Iraq or Afghanistan. Partners were reassessed at Mo. 3 (n=750, 74% response rate) and Mo. 9 (n=707, 70%) of deployment; Soldiers (n=535) and partners (n=608) were assessed 3-months post-deployment. Latent class growth analysis revealed four distinct trajectories of partner distress across time: low, stable (resilience); low initial distress, increasing (vulnerable-risk); high initial distress, declining sharply during deployment (anticipatory distress); high, stable (chronic distress). Multilevel linear and logistic regression will be used to evaluate the relative contributions of shared and independent effects of couples’ reports of risk and protective factors on post-deployment dyadic adjustment and partner distress trajectories, respectively. Implications for future research and development of family-based interventions will be discussed.

Experiential Avoidance, Dyadic Interaction and Marital Adjustment in the Lives of Veterans and Their Partners
(Prevent, Fam/Int-Mil/Vets, Adult, A, Industrialized)

Zamir, Osnat, PhD, MSW; Gewirtz, Abigail, PhD, LP; DeGarmo, David, PhD

1University of Minnesota, Minneapolis, Minnesota, USA
2University of Minnesota-Twin Cities Campus, St Paul, Minnesota, USA
3Oregon Social Learning Center, Eugene, Oregon, USA

This presentation reports data on the mediating pathways of observed couple communication skills on the relationship between experiential avoidance (EA) and marital quality. A sample of 254 post-deployment military couples participated in a conflict discussion and completed self-report measures. Results of an actor-partner interdependence model indicated that for both dyad members, greater EA was associated with lower marital quality. Higher EA in men was associated with lower marital quality in women. In addition, men who reported greater EA exhibited more hostile behaviors and lower positive communication. Hostile communication exhibited by men and women were associated with lower marital quality, and hostile and positive communication in women were related to lowered marital quality in men. Investigation of indirect effects indicated that observed couple communication did not account for the relationship between EA and marital quality. The results illuminated the adverse effects of men’s EA for their own communication skills. In contrast, women appear to be more resistant to the adverse effect of EA on their marital communication. Yet, their communication skills seemed to play an important role in their partner’s marital quality. The study suggests that interventions should explicitly target EA and couple communication skills in both dyad members following combat deployment.
The Contributing Role of Both Partners’ Empathy to Post-Traumatic Distress Following Participation in War
(Self-Care, Self-Care-Mili/Vets, Adult, A, Industrialized)

Siegell, Alana, PsyD; Dekel, Rachel, PhD; Fridkin, Shimon, PhD; Svetlicky, Vlad, PhD
Bar-Ilan University, Ramat Gan, Israel

While the role of empathy in interpersonal relationships is recognized, its implications for dyadic adaptation for traumatized couples is less clear. Trauma literature suggests empathy as the core element behind secondary traumatization; those close to the trauma survivor can be “infected” with symptoms via their empathy, by taking on and identifying with the other’s feelings, experiences, and memories. This study examined differences in emotional and cognitive empathy between war veterans and their spouses and the contribution of one’s own and one’s partner’s empathy to his/her personal adjustment. The differential contribution of each spouse’s empathy to their own and to their spouse’s adaptation was examined. 300 couples - consisting of males who served in the 2006 Israel-Lebanon War and their partners - completed self-report questionnaires. Females reported higher levels of both cognitive and emotional empathy than their male partners. Males’ emotional empathy only contributed negatively to their female partners’ adjustment. Females’ empathy did not contribute at all to their male partners’ adjustment. Findings raise questions regarding the role of empathy in the development of secondary traumatization among spouses of war veterans with PTSD. Further exploration of empathy and additional factors to better understand the development of secondary traumatic stress is needed.

Symposium
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Salon E – Military Track

Resilience and Protective Factors for PTSD and Related Sequelae in Veterans
(Clin Res, Clin Res-Mili/Vets, Adult, I, Industrialized)

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Many studies examine risk factors for the development of PTSD and related problems, yet few have focused on protective and resilience factors. In this symposium, we present several studies that examine factors that protect against PTSD and related sequelae across diverse samples of veterans and discuss the role of resilience in trauma-focused treatment outcomes. Dr. Smith will discuss the relation between resilience (e.g., meaning making, active coping) and PTSD, depression and alcohol use in OEF/OIF veterans, with aspects of resilience protecting against these symptoms. Dr. Sippel will present data from a nationally representative sample of veterans showing that psychosocial protective factors (e.g., purpose in life, optimism) and social connectedness are longitudinally associated with reduced odds of hostility. Dr. Monteith examines the role of reasons for living (e.g., coping beliefs, family) in protecting against suicidal ideation and suicidal self-directed violence among female veterans with a history of military sexual trauma. Dr. Mota will present on the role of resilience in intensive outpatient trauma-focused treatment among veterans with comorbid PTSD and substance use disorders, showing a significant association between resilience and post-treatment intrusions and trauma-cued cravings. Bolstering protective factors could be particularly helpful in addressing PTSD and related problems.

Reasons for Living among Female Veterans with Military Sexual Trauma
(Clin Res, Assess Dx-Clinical Practice-Mili/Vets, Adult, I, Industrialized)

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Although military sexual trauma (MST) is associated with increased risk for suicidal ideation and suicide attempt, many Veterans who are exposed to MST do not experience these sequelae. Reasons for living may represent a potential
process which protects against suicidal self-directed violence (SDV) following MST. Our aim was to examine the role of reasons for living in protecting against suicidal ideation and attempt among female Veterans with a history of MST. In the first study, qualitative interviews were conducted with 32 female Veterans with MST. When asked to describe reasons for living, Veterans commonly mentioned family and friends as being protective against suicidal SDV. In the second study, 96 female Veterans with MST in voluntary trauma-focused treatment completed the Reasons for Living Inventory and Beck Scale for Suicide Ideation. Nearly all types of reasons for living (e.g., survival and coping beliefs, responsibility to family) were inversely associated with suicidal ideation; however, survival and coping beliefs displayed the strongest negative association with suicidal ideation. Taken together, these findings suggest that reasons for living represent one potential pathway by which female Veterans are protected against suicidal SDV following MST. Identifying reasons for living may be particularly important in preventing suicidal SDV in this population.

Examining Resilience as a Predictor of Treatment Outcome in a Sample of Veterans Undergoing an Outpatient Day Program for Posttraumatic Stress Disorder and Substance Use Disorders (Clin Res, Sub/Abuse-Mil/Vets, Adult, I, N/A)

Mota, Natalie, PhD1; Sippel, Lauren, PhD2; Connolly, Kevin, PhD3
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3VA Medical Center, Jackson, Mississippi, USA

Resilience is characterized by the ability to adapt and recover post-trauma, and has been shown to be associated with a lower likelihood of negative mental health outcomes, including substance use and posttraumatic stress disorder (PTSD). Few studies have examined whether resilience can be improved with treatment among veterans, or whether it can predict treatment success for these disorders. The following study examined resilience as a predictor and outcome of an integrated day treatment program for PTSD and substance use disorders in a sample of 29 veterans. Treatment included cognitive processing therapy and cognitive-behavioral skills for substance use, mood improvement, and anger. Diagnoses were made with the Comprehensive Inpatient Interview and Beck Scale for Suicide Ideation. Results showed that resilience increased from pre- (mean=49.8) to post- (mean=64.1) treatment, (t[28] = 4.216, p < 0.001). Resilience scores were not found to predict post-treatment PTSD symptoms, although they did predict a reduction in intrusion symptoms when examining the four PTSD symptom clusters (p = 0.039). Resilience scores also predicted reductions in trauma-cued cravings (p = 0.048). The current findings can be beneficial in informing relapse prevention programs for this population.

Risk and Protective Factors for Hostility: Results from the National Health and Resilience in Veterans Study (Clin Res, Affect/Int-Aggress-Mil/Vets, Adult, I, Industrialized)

Sippel, Lauren, PhD1; Mota, Natalie, PhD2; Kachadourian, Lorig, PhD3; Southwick, Steven, MD1; Harpaz-Rotem, Ilan, PhD3; Pietrzak, Robert, PhD3
1National Center for PTSD Clinical Neurosciences Division/Yale University Dept. of Psychiatry, West Haven, Connecticut, USA
2Yale University School of Medicine, National Center for PTSD, New Haven, Connecticut, USA
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Little is known about prevalence and patterns of hostility in U.S. veterans over time and factors that reduce odds of veterans’ hostility at a population level. A nationally representative sample of 2,157 veterans completed two waves of a web-based survey as part of the National Health and Resilience in Veterans Study in 2011 and 2013. We identified the prevalence and predictors of longitudinal courses of hostility (chronic, increasing, decreasing, or no hostility over two years), measured with the Symptom Checklist-90-Revised Hostility subscale. A majority of veterans (61.2%) reported difficulties controlling anger and a sizable minority of veterans (23.9%) reported aggressive urges over a two-year period. Multinomial logistic regression analyses revealed that psychiatric distress and alcohol misuse were associated with increased odds of many courses of hostility, while psychosocial protective factors (e.g., purpose in life, resilience, optimism) and social connectedness were associated with reduced odds of some courses of hostility. Findings extend cross-sectional evidence for hostility-related risk factors and show that protective factors, including individuals’ ability to cope with stress and adapt to change, are meaningful above and beyond risk factors. Results inform current efforts toward patient-centered, evidence-based assessment of risk and prevention of hostility.

Factors of Resilience that Protect Against Symptoms of PTSD, Depression, and Substance Use among OEF/OIF Veterans (Prevent, Anx-Depr-Sub/Abuse-Mil/Vets, Adult, I, Industrialized)

Smith, Noelle, PhD1; Southwick, Steven, MD2; DeViva, Jason, PhD3; Harpaz-Rotem, Ilan, PhD4
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4Yale University School of Medicine, National Center for PTSD, West Haven, Connecticut, USA

Identification of resilience variables that protect against psychiatric symptoms is an important area for prevention.
and intervention efforts. This study investigates factors of resilience that protect against PTSD and related symptoms among Veterans. 99 OEF/OIF veterans completed measures of resilience and psychiatric symptoms. Linear regression analyses were used to examine whether resilience variables predicted trauma symptoms over and above the effects of age, gender, and combat exposure. Results indicated resilience was significantly associated with lower PTSD symptoms. Making meaning (B = -0.31, p = 0.001), active coping (B = -0.35, p < 0.001), cognitive flexibility (B = -0.31, p = 0.001), self-efficacy (B = -0.38, p<0.001), personal competence (B = -0.44, p<0.001), trust and tolerance of negative affect (B = -0.36, p<0.001), acceptance of change (B = -0.46, p<0.001), and control (B = -0.43, p<0.001) were associated with lower trauma symptoms. Factors of resilience did not moderate the relation between combat exposure and PTSD symptoms, indicating a consistent main effect. Although not as consistently, some factors of resilience were also associated with symptoms of depression (e.g., control) and alcohol use disorder (e.g., trust and tolerance of negative affect). Resilience variables may serve as modifiable targets for prevention of PTSD and related problems.

Master Methodologist
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Salon F-H – Neuro Track

Functional Neuroimaging of Neural Circuits in PTSD: from Hyperactive Amygdala to Altered Contextual Processing

Liberzon, Israel, MD
University of Michigan, Ann Arbor, Michigan, USA

Background: The brain mechanisms that lie at the core PTSD are not yet understood, and may perpetuate or sustain this disorder. Over the past decades, functional neuroimaging studies uncovered complex network of brain regions involved in PTSD, progressively improving our understanding of the PTSD pathophysiology. Methods: The evolution of functional neuroimaging studies from early studies of responses to emotional probes to recent multi-day studies of fear associated learning, and of intrinsic connectivity networks, will be discussed, highlighting their contribution to the evolving concepts of PTSD pathophysiology. Results: Converging evidence suggests an unimpaired fear conditioning and extinction, and abnormal prefrontal hippocampal signaling during fear renewal, pointing toward abnormalities in contextual processing in PTSD. Deficits in contextual processing could be at the core of various PTSD symptoms, illuminating the complex interplay between fear associated learning, memory, sleep, hyperarousal and stress response abnormalities. Conclusions: These studies had transformed our understanding of PTSD pathophysiology from a single site (amygdala) single function (fear), to a more complex, nuanced and accurate model. These findings converge with findings from animal studies allowing for novel and more comprehensive understanding that can lead to future treatments.
Panel Presentation
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Balcony J-K – Assessment and Diagnosis Track

Clinical Competencies for Assessment and Treatment of PTSD with Lesbian, Gay, Bisexual, and Transgender Clients: What Clinicians Need to Know
(CulDiv, Clinical Practice-Orient-Train/Ed/Dis, Lifespan, I, N/A)

Weiss, Brandon, PhD1; Zimmerman, Lindsey, PhD2;
Balsam, Kimberly, PhD2; Brown, Laura, PhD2; Pachankis, John, PhD2
1National Center for PTSD, VA Palo Alto Health Care System/Stanford University School of Medicine, Menlo Park, California, USA
2National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
3Palo Alto University, Palo Alto, California, USA
4Fremont Community Therapy Project, Seattle, Washington, USA
5Yale School of Public Health, New Haven, Connecticut, USA

This panel will focus on unique considerations for treating Posttraumatic Stress Disorder (PTSD) and related disorders with sexual (lesbian, gay, or bisexual) and gender (transgender) minority clients. While individuals who identify as lesbian, gay, bisexual, or transgender (LGBT) tend to experience PTSD at a higher rate and are more likely to be exposed to violence than their heterosexual and cisgender counterparts, the education and training required to provide culturally competent mental health care to LGBT clients are often lacking. Panelists will discuss their research and clinical experiences addressing trauma among LGBT clients. Topics will include how minority stress impacts trauma exposure and PTSD symptoms and how and when the course or content of treatment may differ with LGBT clients. Balsam will discuss her research and clinical work with LGBT trauma survivors, including adapting evidence-based treatments and work with LGBT veterans. Brown will discuss her work on sexual minority women and trauma, including the intersection between gender and sexuality. Pachankis will discuss his work on treating psychosocial syndemic conditions among sexual minority men using a transdiagnostic approach to reducing minority stress effects. Panelists will also discuss how trauma therapists and clinical researchers can enhance their cultural competency for working with LGBT clients.

Symposium
Thursday, November 5
4:15 p.m. to 5:30 p.m.
Balcony L-M – Other Interventions Track

PTSD and Aging: Examining Treatment Outcomes, Psychosocial Health Correlates, and Implications for Mental Health Treatment of PTSD for Older Adults
(Clin Res, Clinical Practice-OoL-Mil/Vets-Aging, Older, I, Industrialized)

Smith, Brian, PhD1; Davison, Eve, PhD2
1National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
2VA Boston Healthcare System/Boston University, Boston, Massachusetts, USA

As a significant proportion of the civilian and veteran populations are approaching older adulthood, further examinations of posttraumatic stress disorder (PTSD) in the context of age are warranted. Given the veteran population, in particular, is a group with relatively high rates of PTSD, it is important to advance understanding of the nature of traumatic stress and PTSD in older veteran cohorts, including consideration of psychosocial risk correlates and treatment efficacy, as well as implications for clinical practice. The aim of this symposium is to focus on the effects of PTSD in older veterans by presenting new data and findings on treatment outcomes, mental health utilization, and indicators of psychosocial functioning in this population. The session will include a discussion of the importance and utility of examining PTSD correlates and treatments in older adults, and to ensuring that basic findings in the PTSD and aging literature are transferred to advance clinical care.

Effect of PTSD on Psychosocial and Functional Outcomes over Time in Younger versus Older Veterans:
Findings from the Mind Your Heart Study
(Clin Res, Health-Pub Health-Mil/Vets-Aging, Older, I, Industrialized)

Smith, Brian, PhD1; Tzyzik, Anna, BS2; Koucky, Ellen, PhD3;
Neylan, Thomas, MD4; Whooley, Mary, MD4; Cohen, Beth, MD, MAS5
1National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
2National Center for PTSD and VA Boston Healthcare System, Boston, Massachusetts, USA
3Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA
4San Francisco VA Medical Center and UCSF, San Francisco, California, USA
Posttraumatic stress disorder (PTSD) is increasingly recognized as a common condition that is associated with poor health and functioning. With a sizable proportion of the population approaching older adulthood, it is crucial to understand how the effect of PTSD on quality of life varies with age. This study examined associations between PTSD and several psychosocial and functional outcomes over a three-year period in younger and older veterans from the Mind Your Heart Study. Participants were recruited from two Veterans Administration medical centers and included 380 patients age 60 and over and 365 under age 60. In the older group, PTSD diagnosis at baseline was associated with lower physical functioning, physical activity, perceived health, and quality of life, and more health-related interference with social activities at follow-up assessments (all ps<.05). Among those under age 60, PTSD was associated with a narrower group of outcomes, including lower physical functioning and greater interference with social activities. All analyses were adjusted for gender, ethnicity, and depression. Study results suggest that PTSD impairs psychosocial and functional outcomes independent of comorbid depression and that these effects may be more profound in older patients, underscoring the importance of examining PTSD across the life course.

**Psychotherapies for Older Male Combat Veterans for PTSD: Outcomes from a Randomized Trial**
(Clin Res, Anx-Clinical Practice-Mil/Vets-Aging, Older, I, Industrialized)

**Thorp, Steven, PhD**; Sones, Heather, PhD; Wells, Stephanie, BA; Glassman, Lisa, PhD

1VA San Diego Healthcare System / UCSD, San Diego, California, USA
2VA Puget Sound Healthcare System, Seattle, Washington, USA
3UCSD/SDSU Joint Doctoral Program in Clinical Psychology, San Diego, California, USA
4San Diego VA/University of San Diego, San Diego, California, USA

Although exposure therapies have garnered strong empirical support and are the most studied form of treatment for PTSD in the general population, several authors have suggested that exposure may be ineffective or harmful for older adults. There is evidence that Relaxation Training (RT) may at least be efficacious as cognitive behavioral therapies for older adults with some anxiety disorders, though there have been few empirical tests of this treatment for older adults with PTSD. We conducted a randomized controlled trial with 87 older male combat veterans (mean age 65 years) assigned to Prolonged Exposure therapy (PE; n=41) or RT (n=46). Veterans in both conditions showed statistically significant improvements in clinician-rated PTSD symptoms, but Veterans in the PE condition showed greater improvement than those in the RT condition and only those in PE showed clinically significant improvement. Both conditions also demonstrated improvement in self-reported PTSD symptoms and depressive symptoms, though no significant changes in functioning were reported. No adverse events occurred in either condition. These findings suggest that psychotherapy with older male Veterans is feasible and efficacious and that PE is a good treatment option for this population.

**Changes in Posttraumatic Cognitions in a Randomized Controlled Trial Comparing Prolonged Exposure Therapy to Relaxation Therapy in Older, Male Combat Veterans**
(Clin Res, Cog/Int-Tech-Mil/Vets-Aging, Older, I, Industrialized)

**Wells, Stephanie, BA**; Glassman, Lisa, PhD; Sones, Heather, PhD; Lin, Tiffany, BA; Thorp, Steven, PhD

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2San Diego VA/University of San Diego, San Diego, California, USA
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4Veterans Affairs Healthcare System, La Jolla, California, USA
5VA San Diego Healthcare System / UCSD, San Diego, California, USA

Negative posttraumatic cognitions have been proposed to mediate the development of posttraumatic stress disorder (PTSD). Research has found negative posttraumatic cognitions to decrease following prolonged exposure therapy (PE). In the current study, changes in posttraumatic cognitions over the course of treatment were examined in 87 male, older combat veterans in a randomized controlled trial comparing PE (n=41) to relaxation therapy (RT; n=46). Cognitions were assessed using the Posttraumatic Cognitions Inventory (PTCI). Baseline PTCI total scores were significantly positively correlated with baseline Clinician Administered PTSD Scale (CAPS) scores (r = .43), PTSD Checklist (PCL) scores (r = .51) and Patient Health Questionnaire-9 (PHQ-9) depression scores (r = .63). PTCI total scores were significantly different between conditions across three time points (F=10.69; df=1.37;p<.002). The main effect was between post and 6 month (F=7.07; df=1.39; p=.011). PTCI scores significantly increased for individuals in the PE group from post to 6 month follow-up. Lower baseline PTCI scores predicted significantly greater decreases in PCL change scores, but not CAPS change scores, from baseline to post. Further analyses will examine changes in the PTCI subscales from pre- to post-treatment.

**Mental Health Service Utilization Among a National Sample of Older Veterans with PTSD**
(Clin Res, Mil/Vets-Aging, Older, I, Industrialized)

**Pless Kaiser, Anica, PhD**; Cook, Joan, PhD; Harpaz-Rotem, Ilan, PhD

1VA Boston Healthcare System, National Center for PTSD; Boston University School of Medicine, Boston, Massachusetts, USA
2Yale School of Medicine, West Haven, Connecticut, USA
3Yale University School of Medicine; VA Connecticut Healthcare System, West Haven, Connecticut, USA

This study utilized archival data from the National PTSD Registry, a database of Veterans diagnosed with PTSD from...
2001-2010. We investigated the relationship between initial PTSD symptom severity and mental health service use among older Veterans (>50 years) who initiated treatment following PTSD diagnosis (N = 63,055). Using correlations, logistic and multiple regressions, we examined associations among PTSD symptoms at time of diagnosis and receipt of mental health treatment (psychiatric and psychological) over one year, after accounting for demographics and comorbid diagnoses. Among Veterans who attended any treatment, we investigated whether PTSD symptoms influenced receipt of a minimally therapeutic dose of psychotherapy (>8 sessions). Unadjusted PTSD symptom severity was associated with more mental health visits (r = .13) and with more psychotherapy sessions (r = .14). Regression results indicated higher initial PTSD symptoms (OR = 1.017, 1.015-1.019 95% CI) and comorbid disorders (e.g., MDD OR = 5.00, 4.67-5.36 95% CI) increased the likelihood of utilizing mental health services (R² = .40). Findings were similar for receipt of a therapeutic dose of psychotherapy among those who engaged in treatment. Psychological symptoms reported at treatment initiation appear to influence older Veterans’ engagement in overall mental health services and psychotherapy over time.
Friday, November 6

Keynote Address
Friday, November 6
8:30 a.m. to 9:45 a.m.
Acadia

Intrusive Re-experiencing in Posttraumatic Stress Disorder: Memory Processes and their Implications for Therapy
(Clin Res, Affect/Int-Clin Res-Cog/Int-Prevent, Adult, I, N/A)

Ehlers, Anke, PhD
Oxford University, Oxford, United Kingdom

Reexperiencing symptoms are common in the immediate aftermath of traumatic events, and their intensity and frequency usually declines over the following weeks and months. People who develop posttraumatic stress disorder (PTSD), however, may be haunted by recurrent distressing reexperiencing for years. Why does reexperiencing persist in some people, but not in others? The presentation will describe how systematic observations of reexperiencing in PTSD led to hypotheses about possible cognitive mechanisms that may explain core characteristics of these symptoms and their persistence, in particular: cognitive processing during trauma, memory characteristics, appraisals, and cognitive and behavioral strategies used to control symptoms (Ehlers & Clark, 2000). Experimental and longitudinal studies of trauma survivors supported these hypotheses and informed the development of treatment techniques that target the cognitive mechanisms. Cognitive therapy for PTSD aims at updating trauma memories and training discrimination between triggers of reexperiencing and stimuli present during the trauma. Problematic appraisals and maintaining cognitive and behavioral strategies are modified. Randomised controlled trials and effectiveness studies showed that the treatment is highly acceptable and effective. Mediation analyses suggested that the proposed cognitive factors mediate treatment effects.
Workshop Presentation
Friday, November 6
10:00 a.m. to 11:15 a.m.
Galerie 2 – Cognitive Processes/Interventions Track

Special Considerations: Implementing CPT with Active Duty Military and Recently Discharged Veterans
(Practice, Cog/Int-Grief-Mil/Vets, Adult, M, Industrialized)

Dondanville, Katherine, PsyD1; Friedlander, Joshua, PsyD1; Wachen, Jennifer, PhD2; Blankenship, Abby, PhD1
1University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA
2Walter Reed Army Medical Center, Washington DC, District of Columbia, USA

Numerous studies and reports document the prevalence of combat-related posttraumatic stress disorder (PTSD) in military personnel returning from deployments to Iraq and Afghanistan. The Department of Veterans Affairs (VA) and Department of Defense (DoD) recommend Cognitive Processing Therapy (CPT) as one of two first-line treatment options for patients with PTSD. CPT is an evidence-based, trauma-focused cognitive treatment for PTSD that has been shown to be efficacious in a wide variety of populations, but has just begun to be implemented with active duty military. The purpose of this workshop is to describe treatment considerations pertinent to active duty populations and recently discharged veterans. The workshop will discuss stigma related to mental health treatment, minimization of symptoms, navigating duty obligations and special factors related to rank and occupational specialties. We will discuss common themes that may be especially relevant, including blame/responsibility, the military ethos, erroneous blame of others, just world beliefs, traumatic loss, fear of harming others, and moral injury. Case examples and video illustrations will be provided. Presenters include CPT Trainers who have experience training and providing consultation over 1000 providers across the DoD/VA and therapists who have treated over 300 soldiers utilizing both individual and group CPT.

Symposium
Friday, November 6
10:00 a.m. to 11:15 a.m.
Galerie 3 – Affective Processes/Interventions

Posttraumatic Stress and Suicidal Behavior: Clinical Research Advances and Future Directions
(Clin Res, Affect/Int-Comm/Int-Social-Mil/Vets, Adult, M, Industrialized)

Vujanovic, Anka, PhD1; Reddy, Madhavi, PhD1; Bryan, Craig, PsyD1
1University of Texas Health Science Center, Houston, Texas, USA
2National Center for Veterans Studies and University of Utah, Salt Lake City, Utah, USA

Trauma exposure and PTSD are significant risk factors for suicidality. Better understanding this important association is imperative to meaningfully informing advances in suicide prevention and intervention. The goal of the present symposium is to feature cutting-edge work on PTSD and suicide, using various methodological approaches and across diverse trauma-exposed populations, including college students, psychiatric inpatients, and military veterans. First, Davis et al. will discuss differential associations between DSM-5 PTSD symptom clusters and passive suicidal ideation in college students, using a confirmatory factory analytic approach. Second, Vujanovic et al. will discuss unique associations between PTSD symptoms, distress tolerance (i.e., perceived or actual ability to tolerate negative emotion) -- assessed multi-modally -- and suicidal ideation and behavior in acute-care psychiatric inpatients. Third, Reddy et al. will discuss clinical differences in suicidal behavior in psychiatric inpatients with PTSD and bipolar disorder (BD), as compared to those with BD-only. Fourth, Green et al. will discuss relations between trauma types, peritraumatic emotions, and suicide risk in a large sample of OEF/OIF veterans. Finally, our Discussant, Dr. Bryan, will offer a synopsis of the current state of the field with suggestions for future clinical and research directions.

Differential Associations between Passive Suicidal Ideation and DSM-5 Symptom Clusters of Posttraumatic Stress Disorder
(Practice, Assess Dx-Social, Adult, M, Industrialized)

Davis, Margaret, BA; Witte, Tracy, PhD; Weathers, Frank, PhD; Lee, Daniel, MS; Kramer, Lindsay, BS
Auburn University, Auburn, Alabama, USA

This study used the interpersonal-psychological theory of suicide (IPTS; Joiner, 2005) as a framework to examine...
relationships between DSM-5 PTSD symptom clusters and passive suicidal ideation (P-SI) in a sample of trauma-exposed undergraduates. The current study is a follow-up to Davis, Witte, and Weathers (2014), which examined this question using DSM-IV PTSD criteria. Davis et al. (2014) found that all PTSD clusters had indirect relationships with P-SI, partially mediated by relevant IPTS constructs. However, emotional numbing was also directly related to P-SI in structural models and showed the strongest bivariate relationship with P-SI. We hypothesized that we would replicate Davis et al. (2014). Participants completed self-report measures of P-SI, PTSD symptoms, IPTS constructs, and depressive symptoms. Confirmatory factor analyses supported a 6-factor model of PTSD (Liu et al., 2014) in which two DSM V factors were subdivided: the negative alterations in mood and cognition into negative affect and anhedonia, and hyperarousal into dysphoric and anxious arousal. Additionally, results from our structural models replicated Davis et al. (2014). In this symposium, we will discuss implications of these findings for the relationship between PTSD and P-SI using DSM-5 criteria and for assessing and reducing risk for suicidal behavior in trauma-exposed individuals.

Posttraumatic Stress and Suicidal Behavior in Acute-Care Psychiatric Inpatients: The Role of Distress Tolerance
(Clin Res, Affect/Int-Cog/Int-Social-Theory, Adult, M, Industrialized)

Vujanovic, Anka, PhD1; Reddy, Madhavi, PhD2; Wardle, Margaret, PhD2
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2University of Texas Medical School at Houston, Houston, Texas, USA

Posttraumatic stress (PTS) is a significant risk factor for suicidality. The role of cognitive-affective factors, such as distress tolerance (DT), in this association is not well-established. DT is defined as the actual or perceived capacity to withstand negative emotional states. Research suggests associations between DT and suicidality in trauma-exposed samples. No studies have examined DT modally to assess its relation to suicidality in acute-care psychiatric patients. Three methods were used to measure DT: Mirror-Tracing Persistence Task (MT), Breath-Holding Task (BH), and Distress Tolerance Scale (DTS). It was hypothesized that DTS and MT would evidence the most robust associations with suicidality, after controlling for PTSD. Results from a retrospective chart review found that patients with comorbid PTSD and BD (n = 24) were significantly more likely to be female, to be depressed, to have a comorbid personality disorder, and to have a history of suicide attempt. Notably, the odds of previously attempting suicide in patients with comorbid PTSD and BD were almost 12 times that of the BD alone patients (OR 11.58) even after controlling for mood episode polarity at time of admission. Patients with comorbid PTSD and BD appear to be a high risk population with need for enhanced monitoring of suicidality. These findings will be discussed in relation to theories of PTSD development and clinical implications will be presented.

Clinical Differences including History of Suicide Attempt between Inpatients with Bipolar Disorder with and without Comorbid PTSD
(Practice, Depr-Pub Health, Adult, M, Industrialized)

Reddy, Madhavi, PhD1; Wittlin, Natalie, BA1; Meyer, Thomas, PhD1; Weinstock, Lauren, PhD2
1University of Texas Health Science Center, Houston, Texas, USA
2Brown Medical School, Providence, Rhode Island, USA

There are elevated rates of posttraumatic stress disorder (PTSD) among patients with bipolar disorder (BD). However, little is known about clinical correlates, such as history of suicide attempt, that may distinguish patients with comorbid PTSD and BD from those with BD alone. Preliminary studies on these associations have been equivocal. The present study sought to elucidate these potentially meaningful differences and examined history of suicide attempt along with other risk factors in predicting comorbid PTSD in a sample of 230 psychiatric inpatients with BD. Results from a retrospective chart review found that patients with comorbid PTSD and BD (n = 24) were significantly more likely to be female, to be depressed, to have a comorbid personality disorder, and to have a history of suicide attempt. Notably, the odds of previously attempting suicide in patients with comorbid PTSD and BD were almost 12 times that of the BD alone patients (OR 11.58) even after controlling for mood episode polarity at time of admission. Patients with comorbid PTSD and BD appear to be a high risk population with need for enhanced monitoring of suicidality. These findings will be discussed in relation to theories of PTSD development and clinical implications will be presented.

Trauma Types and Peritraumatic Emotions Predict Suicide Risk among Veterans
( Assess Dx, Rape-Mil/Vets, Adult, M, Industrialized)

Green, Jonathan, PhD1; Kearns, Jaclyn, BA2; Marx, Brian, PhD3; Rosen, Raymond, PhD4; Keane, Terence, PhD5
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2National Center for PTSD, VA Boston Healthcare System, Department of Psychology, Harvard University, Boston, Massachusetts, USA
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Although prior research has explored the association between posttraumatic stress disorder (PTSD) and suicide, relations between suicide risk and both the nature of trauma exposure and associated peritraumatic emotions have yet to be explored (Krynsinska & Lester, 2010). Participants were 1649 OEF/OIF veterans (50% female) enrolled in Project VALOR (Veterans’ After-Discharge Longitudinal Registry). PTSD and suicide risk were assessed using the SCID-IV and Mini International Neuropsychiatric Interview, respectively. Index traumas for 743 participants were coded using Stein and colleagues’ (2012) trauma type coding scheme. Military Sexual Traumas (MSTs) were assessed via
Cumulative trauma or exposure to multiple types of child abuse or neglect increases the risk of experiencing intimate partner violence (IPV; Green, 2005; Iverson, 2013) and is associated with deficits in emotion regulation (Briere & Ricksard, 2007), which are considered as robust determinants of psychological IPV (Benzerski & Yate, 2010; Shorey et al., 2011). The goal of the present study was to evaluate the mediating effects of emotion regulation on the association between cumulative childhood trauma and IPV in patients consulting for sex or couple problems. A total of 130 adults consulting in a sexology clinic completed questionnaires assessing their experiences of child abuse and neglect (Bremner et al., 2007), IPV (CTS-2; Straus et al., 1996) and emotional dysregulation (Briere, 2000). The results indicated that a significant proportion (70%) of participants reported more than one type of abuse or neglect during childhood while the majority of them reported perpetrating (58%) and sustaining (60%) psychological IPV in their current relationship. Results of path analyses confirmed that cumulative trauma leaded to emotional dysregulation, which in turn predicted more psychological IPV. Results support that treatment aiming to increase emotion regulation skills might be particularly helpful to prevent IPV in trauma survivors.

Sexual Self-Schemas in Women with and without Histories of Childhood Sexual Abuse: Results from a new Computerized Text Analysis Technique
(Res Meth, CSA, Adult, M, Industrialized)

Stanton, Amelia, PhD Candidate; Boyd, Ryan, PhD Candidate; Pulverman, Carey, PhD Candidate; Meston, Cindy, PhD
University of Texas at Austin, Austin, Texas, USA

Trauma negatively affects schemas about the self, and for women with a history of childhood sexual abuse (CSA), trauma affects sexual self-schemas. Abused women have been shown to hold less positive sexual self-schema than non-abused women, yet previous research has used exclusively explicit data collection methods (i.e., self-report). In the present study, sexual self-schemas in women with and without CSA histories were analyzed via the meaning extraction method (MEM), an advanced computerized text analysis technique that identifies words that relate to specific implicit themes in pieces of text. Participants (n = 239) completed open-ended essays about their personal feelings associated with sex and sexuality. The procedure extracted seven unique themes germane to sexual self-schemas: family and development, virginity, abuse, relationship, sexual activity, attraction, and existentialism. Each of these themes was comprised of frequently used words across the participants' descriptions of their sexual selves. Significant differences in sexual self-schemas were observed based on CSA status, as well as age and relationship status. This technique, which accesses implicit beliefs about the sexual self, may be applied to develop more effective treatments for women with PTSD due to CSA. It may also be used as marker of treatment progress.

What Mediates the Link between Childhood Maltreatment and Adult Depression? The Role of Emotion Regulation, Attributional Style, and PTSD Symptom Severity
(Clin Res, CPA-CSA-Chronic-Depr, Adult, M, Industrialized)

Ehring, Thomas, PhD
Ludwig-Maximilians-University, Munich, Bavaria, Germany

Childhood maltreatment has been shown to be related to a severe and/or chronic course of depression. The presentation reports on two studies investigating psychological mediators of this relationship. In Study 1, a sample of acute or recovered depressed individuals (N = 340) participated in an online survey assessing characteristics of depression, trauma exposure, and a number of potential mediators, including emotion regulation, attributional style, and attachment. In Study 2, a large population-based sample (N = 1,028) was tested to replicate the findings. In both studies, the experience of childhood maltreatment was related to more severe depression and a higher number of depressive episodes. In both datasets, the relationship between childhood maltreatment and depression was found to be completely mediated by the hypothesized variables, whereby a model specifying two different pathways showed the best fit with the data. The first pathway included...
PTSD symptom severity as a mediator, whereas the second pathway included emotion dysregulation and a depressogenic attributional style. In sum, the findings provide preliminary evidence for the idea that the link between childhood adversity and depression is partly secondary to PTSD symptomatology, and partly due to transdiagnostic cognitive and emotional processes.

### Media Presentation
#### Friday, November 6
10:00 a.m. to 11:15 a.m.
**Galerie 5 – Other Interventions Track**

(Multi-Media, Assess Dx-Clinical Practice-Comm/Int-Health, N/A, I, N/A)

Matteo, Rebecca, PhD; Merrick, Cybele, MA; Hamblen, Jessica, PhD
1 National Center for PTSD/White River Junction VA, White River Junction, Vermont, USA
2 VA National Center for PTSD, Executive Division, White River Junction, Vermont, USA
3 VA National Center for PTSD/White River Junction VA Medical Center, White River Junction, Vermont, USA

Educating Veterans, trauma survivors, and providers about PTSD and effective treatments is a priority of VA’s National Center for PTSD (NCPTSD). To that end, NCPTSD integrates clinical and scientific knowledge into multimedia products that facilitate PTSD recognition, engage trauma survivors in evidence-based treatment, and enhance provider-client relationships. In this multimedia presentation, we describe and screen three NCPTSD video products. AboutFace is a peer education campaign that engages Veterans through personal testimonials. The message from Veterans on the website is empathetic and clear: Treatment can turn your life around. NCPTSD’s animated whiteboard video series demonstrates how a product can transfer evidence-based information quickly and inform decision making for PTSD treatment by both patients and providers. Finally, PTSD Awareness fosters a supportive environment of care by modeling how frontline staff can use knowledge of PTSD symptoms to respond to patients’ PTSD-related symptoms. The presenters will describe the conceptualization, development, and dissemination of these diverse products. The session will conclude with recommendations for clinicians’ use of the products in practice to engage, inform, and support patients seeking care for PTSD.

### Symposium
#### Friday, November 6
10:00 a.m. to 11:15 a.m.
**Galerie 6 – Child Trauma Track**

**Advances in Understanding the Developmental Consequences of Traumatic Stress across Childhood and Adolescence**
(Assess Dx, Assess Dx-CPA-CSA-Chronic, Child/Adol, M, Industrialized)

Kerig, Patricia, PhD
University of Utah, Salt Lake City, Utah, USA

Much of the research informing and informed by the new criteria for the PTSD diagnoses in DSM-5 and ICD-11 has focused largely on adult samples to date. Therefore, an increasingly important but under-examined question concerns developmental differences in the consequences of exposure to various forms of traumatic stress across childhood and adolescence. This symposium brings together papers from four independent laboratories based in geographically diverse regions of the US, which are investigating this question utilizing cutting-edge analytic methods and involving underrepresented samples of youth. The four papers focus on comparing effects of different forms of victimization occurring in different developmental epochs across childhood, utilizing a national database of trauma-exposed youth; understanding outcomes associated with the dissociative subtype within a state-wide sample of children in care; latent profile analyses of trauma exposure subtypes among community youth involved in the juvenile justice system; and predictors, correlates, and implications of changes in the DSM criteria for identifying and understanding traumatized youth in detention settings. The symposium participants will engage attendees in discussion of the results and their implications for understanding traumatized youth in detention settings. The symposium participants will engage attendees in discussion of the results and their implications for understanding the intersections among trauma exposure, development, and outcomes for children and adolescents.

**Developmental Trajectories of Exposure to Potentially Traumatic Childhood Experiences**
(Clin Res, Chronic, Child/Adol, M, Industrialized)

Dierkhising, Carly, PhD; Ford, Julian, PhD; Branson, Christopher, PhD; Grasso, Damon, PhD; Lee, Robert, MS/MA
1 California State University Los Angeles, Los Angeles, California, USA
2 University of Connecticut Health Center, Farmington, Connecticut, USA
3 Mount Sinai School of Medicine, Dept of Psychiatry, New York, New York, USA
4 Duke University Medical Center/National Center for Child Traumatic Stress, Durham, North Carolina, USA

Research on patterns of children’s exposure to trauma and associated developmental sequelae (Pynoos et al., 2014)
has sparked interest in understanding how cumulative or co-occurring trauma exposure during childhood predicts later outcomes. In a sample of clinically referred 13-18 year olds (N = 3485; 62.5% female; 65% African-American and Hispanic youth) from the National Child Traumatic Stress Network Core Data Set, latent transition analysis revealed that membership in either a high exposure group (polyvictimization; M = 4 – 10 trauma types) or low exposure (M = 1 – 3 trauma types) group was stable across developmental epochs for most participants. However, girls were nearly twice as likely (14.8%) as boys (7.6%) to transition from the low exposure to high exposure group between middle-childhood and adolescence. Additional multivariate analyses compare the mental health burden in adolescence of limited and persistent childhood polyvictimization on posttraumatic stress symptoms, internalizing problems, and externalizing problems in adolescence. Clinical and policy implications for psychosocial intervention at developmentally sensitive periods for polyvictimization will be discussed.

Understanding Dissociation among Youth in Child Welfare: Relationship to Risk Behaviors, Mental Health Symptoms, and Intensity of Services

Kisiel, Cassandra, PhD1; McClelland, Gary, PhD1; Torgersen, Elizabeth, MA2
1Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA
2Northwestern University, Chicago, Illinois, USA

There is vast clinical and theoretical literature supporting the link between trauma and dissociation among adults with growing literature on dissociation among children. Emerging research also links dissociation, risk behaviors, and other negative outcomes among youth. This study examined dissociation in relation to risk behaviors, mental health needs and intensity of services among a large sample of youth in Illinois child welfare, upon entry into care with a follow up two years later. Data were collected with the Child and Adolescent Needs and Strengths (CANS), a comprehensive, trauma-focused assessment/planning tool. This sample included 20,791 children and adolescents, ages 3-18. Results indicated those youth with clinically significant dissociation at entry into care were more likely to be psychiatically hospitalized, placed in residential treatment, or had greater likelihood of placement disruptions in the two years following. Dissociative youth were also more likely to exhibit other risk behaviors and significant mental health symptoms. Implications of these data will be discussed in terms of identifying consequences of trauma early on that may go ‘unseen’ or unrecognized (e.g.,dissociation) but may be linked to high risk behaviors and other negative outcomes. Dissociation may be an important part of treatment planning and clinical care within child welfare settings.

Poly-Victimization in Non-detention Juvenile-Justice Involved Youth: Latent Profiles and Importance of Systematic Evidence-Based Screening

Smith, Stefanie, PhD1; Grasso, Damion, PhD2; Ford, Julian, PhD2
1CSPP at Alliant International University, San Francisco, California, USA
2University of Connecticut Health Center, Farmington, Connecticut, USA

Over 90% of justice-involved youth report trauma exposure with poly-victimization the norm (Abram et al., 2004, Ford et al., 2013). Specific types of trauma (e.g. child maltreatment, community and domestic violence, and traumatic loss) are linked to juvenile justice involvement (Foy et al., 2012; Kerig et al., 2009). An understudied group are youth arrested for delinquent behavior but not committed to juvenile detention. Of 171 arrested youth sent to a non-detention program, only 65% were identified with a trauma history by routine screening but 96% were identified after implementation of the Traumatic Events Screening Instrument (range: 1-14 events). 94% reported two or more trauma types; a majority endorsed 4 or more. Latent Class Analyses resulted in a 2-class solution with acceptable fit indices, both of which reflected multiple-trauma profiles suggesting polyvictimization for juveniles is not a singular construct but a variable set of trauma experiences. A t-test revealed significantly greater mean number of trauma types for Class 1 (Mean=7.7±1.9) compared to Class 2 (Mean=3.2±1.6), t=17.3, p<.001, which supports Class 1 as largely representative of youth with poly-victimization. Discussion will include importance of systematic evidence-based screening by juvenile justice staff and the identification of different polyvictim profiles in juvenile offender populations.

Comparing DSM-IV and DSM-5 PTSD Prevalence Rates in Traumatized Adolescents: Developmental Considerations

Modrowski, Crosby, BA: Chaplo, Shannon, Doctoral Student; Bennett, Diana, MS, PhD Student; Kerig, Patricia, PhD
University of Utah, Salt Lake City, Utah, USA

Although several recent studies have documented a pattern of reduced PTSD prevalence rates when applying DSM-5 versus DSM-IV diagnostic criteria, none of this research to date has included youth. To this end, the present study compared DSM-IV versus DSM-5 PTSD prevalence rates in a group of ethnically diverse traumatized delinquent adolescents. Participants included 297 youth (78 girls) aged 12-18 (M=16, SD=1.3). Rates of full/partial PTSD were higher according to DSM-5 (61%) than DSM-IV (35%) criteria. N=102 youth met full/partial criteria in both diagnostic systems, n=79 met DSM-5 only, n=3 met DSM-IV only, and n=113 met neither. MANOVAs comparing the youth who met DSM-5 criteria only to youth who met both DSM-IV and DSM-5 criteria showed significant differences.
between the groups on all DSM-5 cluster scores (Criteria B, C, D, & E) and four dependent variables related to broader PTSD constructs (dissociation, emotion dysregulation, associated features, and rates of interpersonal traumas), with no differences between the groups on only one variable, emotional numbing. The results are discussed in the context of developmental differences that may make youth more likely to meet DSM-5 criteria.

Panel Presentation
Friday, November 6
10:00 a.m. to 11:15 a.m.
Acadia

The Shooting of Michael Brown and the Ferguson Protests: Trauma, Resilience, and Community Mental Health Response
(Commun, Comm/Int-Comm/Vio-Cul Div-Social, Lifespan, I, Industrialized)

Houston, J. Brian, PhD1; Dunn, Jerry, PhD2; Javois, Laurent, MA; Wong, Marleen, PhD4
1University of Missouri - Columbia, Columbia, Missouri, USA
2University of Missouri St. Louis, St Louis, Missouri, USA
3Missouri Department of Mental Health, St. Louis, Missouri, USA
4University of Southern California, Los Angeles, California, USA

On Saturday, August 9, 2014, an unarmed teenager Michael Brown was shot and killed by police officer Darren Wilson in Ferguson, Missouri (near St. Louis). In the days following, peaceful vigils turned to violent protests that grew in size and severity, eventually capturing the attention of the national and international media. This panel will discuss the historical and sociocultural context of these events; the mental health impact of the shooting, protests, and police response on people living in and near Ferguson; the behavioral health programs and services delivered throughout the community to address these events; the existing and ongoing needs of youth and adults in the area; and the resilience and adaptation of the community. Panelists will present results of a cross-sectional survey of residents from the St. Louis metropolitan area in the months following the fatal shooting of Michael Brown that assessed posttraumatic stress, attitudes about the events, and resilience; will describe behavioral health services provided through a variety of community systems such as community mental health centers, schools, and other community based organizations; and will reflect on the Ferguson events through the lens of other related community events such as the 1992 Los Angeles riots that followed the acquittal of police officers who were charged with assaulting Rodney King.

Symposium
Friday, November 6
10:00 a.m. to 11:15 a.m.
Salon A-C – Bio-Med/ Genetics Track

From Bench to Beside: Translational Evidence for Opioids in Decreasing Symptoms of Posttraumatic Stress Disorder
(Bio Med, Clin Res-Bio/Int-Prevent-Pub Health, N/A, M, N/A)

Seal, Karen, MD, MPH1; Stein, Murray, MD, MPH, FRCPCH2
1San Francisco VA Medical Center and UCSF, San Francisco, California, USA
2University of California, San Diego, La Jolla, California, USA

In this symposium, clinician researchers and basic scientists will partner to present new data from animal models to human subjects exploring the question of whether and how opioids prevent or reduce symptoms of acute and chronic posttraumatic stress disorder (PTSD). This translational research is motivated by retrospective observations from adult and pediatric populations showing that morphine (opioid analgesia) after acute trauma prevented PTSD symptoms (Holbrook, 2010; Bryant, 2009), as well as data indicating that those with PTSD are more likely than others to receive prescription opioids for pain and are at greater risk for self-escalation and misuse (Schwartz, 2006; Seal, 2012). Dr. Stein will use a translational framework to discuss the underlying neurobiological mechanisms that may inform clinical practice as well as the public health implications for the observed effects of opioids in mitigating symptoms of acute and chronic PTSD.

Observational Evidence for Buprenorphine in the Treatment of Posttraumatic Stress Symptoms in Veterans with Chronic Pain and Opioid Use Disorder
(Clin Res, Sub/Abuse-Care, Adult, M, Industrialized)

Seal, Karen, MD MPH1; Maguen, Shira, PhD1; Bertenthal, Daniel, MPH2; Stein, Murray, MD, MPH, FRCPCH3; Neylan, Thomas, MD3
1San Francisco VA Medical Center and UCSF, San Francisco, California, USA
2San Francisco VA Medical Center (VAMC-SF), San Francisco, California, USA
3University of California, San Diego, La Jolla, California, USA

PTSD, chronic pain and substance use disorders are prevalent co-occurring conditions, which together, are challenging to treat. Buprenorphine is a partial nociceptin opioid (NOP) receptor agonist for which there is pre-clinical data to suggest benefit in acute PTSD (Anderso, 2013). Buprenorphine lacks the side-effects of traditional opioids and is FDA-approved for opioid use disorder and chronic
pain, but there is no data on its effect on chronic PTSD symptoms. Among a retrospective cohort of 382 US Iraq and Afghanistan veterans in VA healthcare with diagnoses of PTSD, chronic pain, and substance use disorders, we compared change in PTSD symptoms over time in veterans initiated on sublingual buprenorphine versus those maintained on moderately high dose traditional opioid therapy (OT). Twice as many veterans in the buprenorphine group (23.7%) compared to the OT group (11.7%) experienced improvement in PTSD symptoms (p=0.001). Compared to the OT group, veterans receiving buprenorphine showed significant improvement in PTSD symptoms after 6 months, with increasing improvement up to 24 months [Incidence rate Ratio (IRR) = 1.79, 95% Confidence Interval (CI)=1.16-2.77, (p =0.009)]. This is the first observational study to report an effect of buprenorphine in improving chronic PTSD symptoms in veterans with PTSD, chronic pain and substance use disorders.

Amygdala-Dependent Fear is Regulated by Oprl1 in Mice And Humans with Posttraumatic Stress Disorder

Andero, Raul, PhD
Emory University, Atlanta, Georgia, USA

The amygdala-dependent molecular mechanisms of PTSD are poorly understood and evidence suggests that opioids may have a role in preventing PTSD following trauma. Here, PTSD-like symptoms were elicited by exposing mice to immobilization stress 6 days before fear conditioning (FC). The opioid receptor-like 1 (Oprl1) gene within the amygdala, which encodes the opioid nociceptin (NOP) receptor, was found to be altered after FC. Moreover, a newly synthesized NOP receptor agonist prevented PTSD-like symptoms. Concordant data was observed in a sample of 1847 humans in which a single-nucleotide polymorphism within the OPRL1 was associated with a history of trauma and PTSD symptoms, fear discrimination and fMRI evidence for enhanced amygdala-insula functional connectivity. These data suggest that OPRL1 is associated with amygdala function, fear processing and PTSD symptoms. Moreover, activation of the Oprl1/NOP receptor may have implications for PTSD prevention after trauma.

Peri-traumatic IV Opiate Administration Attenuates Posttraumatic Stress Disorder and Depression Symptom Development: a Prospective Observational Study

Michopoulos, Vasiliki, PhD, MSc; Rothbaum, Alex, BS; Rothbaum, Barbara, PhD, ABPP; Ressler, Kerry, MD, PhD
Emory University School of Medicine, Atlanta, Georgia, USA

PTSD is linked directly to a causal event which affords an opportunity for prevention following trauma. Retrospective data indicate that morphine (opiate) treatment in the aftermath of trauma may lower the risk for developing PTSD. In this prospective observational study, we sought to determine whether IV opiate administration following trauma was associated with fewer PTSD and depression symptoms. Participants (n=50) were recruited from the Emergency Department (ED) of a trauma center after a criterion A trauma (DSM-IV). Participants were assessed in the ED and again at one- and three-months for PTSD and depression symptoms. Patients were administered IV fentanyl, morphine, both, or no IV opiates according to ED protocols. In patients who received IV opiates (fentanyl or morphine), we found lower total PTSD symptoms at one-month (p=0.001, IV-OP:12.3±2.0 vs. No-IV-OP:25.3±3.2) and at three-month visits (p<0.001, IV-opiate:8.7±1.7 vs. No-IV-Op:21.9±3.6). Similar effects were observed for depression symptoms at one- and three-months (p<0.05). These effects remained after controlling for potential confounding variables (sex, interpersonal trauma, clinician-rated trauma severity, loss of consciousness, and self-reported pain levels). These data suggest that IV opiate administration following trauma exposure may prevent PTSD and depression symptom development.
Invited Panel  
Friday, November 6  
10:00 AM to 11:15 AM  
Salon D – Public Health Track

Trauma as a Public Health Issue: From Epidemiology to Policy  
(Global, CPA-CSA-Pub Health-Social, Lifespan, I, Global)

Koenen, Karestan, PhD; Galea, Sandro, MD, DrPH; Harris, William, PhD
1Columbia University, New York, New York, USA  
2Boston University, Boston, Massachusetts, USA  
3Children’s Research and Education Institute, New York, New York, USA

Reports in the mainstream media suggest that traumatic events, such as natural disasters, sexual assault, and child abuse, are frequent occurrences throughout the world, and take a tremendous psychological toll on individuals and communities. Epidemiological studies have provided empirical evidence on the high prevalence of trauma and the devastating effects of trauma-related disorders, and have shown that trauma is not equally distributed across populations. This invited session will include presentations by Drs. Sandro Galea, Dean and Professor, Boston University School of Public Health and William Harris, Director, Children’s Research and Education Institute two leaders in the domain of trauma, public health and policy. Dr. Galea will discuss the global public health burden posed by trauma exposure and the need for a population-based framework for prevention. Dr. Harris’s presentation will focus on the public health burden posed by childhood trauma, the challenges in communicating this to policy makers and the public, and the policy initiatives that should be undertaken to ameliorate the social costs of childhood trauma. Following their presentations, Drs. Galea and Harris will engage with each other and the audience in a discussion of the research and policy implications of a public health approach to trauma.

Symposium  
Friday, November 6  
10:00 a.m. to 11:15 a.m.  
Salon E – Military Track

Understanding the Effects of Military Occupational Trauma through Military-Civilian Comparisons: Findings from Canada, the United Kingdom, and Australia  
(Res Meth, Pub Health-Mil/Vets, Adult, M, Industrialized)

Zamorski, Mark, MD; Hoge, Charles, MD
1Department of National Defence, Ottawa, Ontario, Canada  
2Walter Reed Army Institute of Research/US Army, Bethesda, Maryland, USA

Military personnel may experience occupational and non-occupational trauma, both of which can affect their mental health over their life course. Comparison of the prevalence of mental disorders in military personnel and civilians is one tool to understand the health effects of military service, but these comparisons raise methodological and philosophical questions surrounding how one defines a comparable group of civilians. Papers 1, 2, and 3 explore prevalence rate differences in serving personnel vs. civilians in three nations, addressing the complexities of identifying a comparable group of civilians and of controlling for non-occupational trauma, including childhood trauma for which military personnel have excess risk. Paper 4 demonstrates marked differences in mental health service use in Canadian military personnel and comparable civilians, underlining the need to account for the effects of differences in service use in military-civilian prevalence rate comparisons. The need to consider selection effects related to military occupational fitness acting both at recruitment and during continued service will be highlighted as an addition complicating feature. Military-civilian prevalence comparisons can shed light on the effects of military occupational trauma, but careful attention is needed to potential confounding factors.

Are Common Mental Disorders more Prevalent in the UK Serving Military Compared to the General Working Population?  
(Practice, Assess Dx-Clinical Practice-Commun-Civil/War, Adult, M, Industrialized)

Greenberg, Neil, MD, MsC; Goodwin, Laura, PhD
King's College London, London, United Kingdom

Background: Although the military is considered to be a stressful occupation, there are remarkably few studies that compare the prevalence of common mental disorder (CMD) between the military and the general population. This study examined the prevalence of probable CMD in a serving UK military sample compared to a general population sample of employed individuals. Methods: Data for the general population was from the Health Survey for England (HSE)
and for the serving military from the King’s Centre for Military Health Research (KCMHR) cohort study. Probable CMD was assessed by the General Health Questionnaire (GHQ-12). Results: The odds of probable CMD was approximately double in the military, when comparing phase 1 of the military study to the 2003 HSE (Odds Ratio (OR)=2.4; 95% confidence intervals (CI) 2.1-2.7), and phase 2 to the 2008 HSE (OR=2.3; 95% CI 2.0-2.6) after adjustment for sex, age, social class, education and marital status. Conclusions: Serving military personnel are more likely to endorse symptoms of CMD compared to those employed in other occupations, even after accounting for demographic characteristics. This difference may be partly explained by the context of the military study, in addition to the role of predisposing characteristics.

A Comparison of Mental Health in the Australian Defence Force Compared to the Australian Community
(Assess Dx, Mil/Expr, Adult, M, Industrialized)

McFarlane, Alexander, MD; Van Hooff, Miranda, BA (Hons), PhD; Hodson, Stephanie, BSc Hons Psychology
The University of Adelaide, Adelaide, South Australia, Australia

The 2010 Australian Defence Force Mental Health Prevalence and Wellbeing Study was specifically designed to allow a comparison with the Australian population. The methodological approach used the same version of the Composite International Diagnostic Interview as was utilised in the 2007 study of the Australian population conducted by the Australian Bureau of Statistics. A sub-cohort of that study was extracted so as to match the Defence Force population on gender, age, education, and employment. The prevalence of mental disorders for the Defence Force was similar to the Australian community sample but the profiles of specific disorders varied. The ADF lifetime prevalence rates were higher, while the experience of mental disorder in the previous 12 months was similar. The 12-month prevalence of any affective disorder was higher in the Defence Force (9.5% versus 5.9%), whereas the rates of alcohol disorder were lower (5.2% versus 8.3%). These results need to be discussed against the background of the age distribution of these disorders within the Defence Force members, in contrast to the community, where there appeared to be an earlier onset in defence personnel.

Prevalence of Past-Year Mental Disorders in Canadian Military Personnel and Civilians: the Challenge of Defining a Civilian Comparison Group
(Res Meth, Anx-CPA-CSA-Depr, Adult, M, Industrialized)

Rusu, Corneliu, MD, MsC
Canadian Forces Health Services Centre Ottawa, Ottawa, Ontario, Canada

The objective of this study is to examine the differences in the prevalence of past-year major depression episode (MDE), generalized anxiety disorder (GAD) and alcohol abuse or dependence (ABD) in Canadian Armed Forces Regular Force (CAF-RF) personnel and Canadian civilians with similar socio-demographic and child trauma profiles. Methods: Data were obtained from two highly comparable cross-sectional population-based surveys conducted by Statistics Canada. Past-year MDE, GAD and ABD were assessed using the WMH-CIDI instrument. Past-year prevalence rates in the military were compared to estimates from a subsample of the general household population, that was limited to individuals without exclusionary characteristics for military service and was weighted on a range of socio-demographic and child trauma variables to agree with the corresponding variable distributions in the CAF-RF. The weights were created using iterative proportional fitting procedure. Results: Past-year prevalence rates of MDE, GAD and ABD in CAF-RF personnel were 7.9%, 4.7%, and 4.5% respectively, while in the matched civilians the rates were 3.6%, 1.5%, and 6.6%, respectively. Conclusions: Relative to matched civilians, CAF-RF personnel had higher rates of past-year MDE, GAD, and lower rates of past-year ABD. Further research is required to understand these disparities among CAF-RF personnel and civilians.

Past-Year Use of Mental Health Services in Canadian Armed Forces Personnel: Disentangling the Effects of Occupational Trauma and Differences between the Military and Civilian Mental Health Systems
(Prevent, Clin Res-Pub Health, Adult, M, Industrialized)

Fikretoglu, Deniz, PhD; Liu, Alhua, PhD; Zamorski, Mark, MD; Jetly, Rakesh, MD, FRCPAC
1Defence Research and Development Canada, Toronto, Ontario, Canada
2McGill University - Douglas Hospital Research Center, Montreal, Quebec, Canada
3Department of National Defence, Ottawa, Ontario, Canada
4Canadian Forces Health Services Group Headquarters, Ottawa, Ontario, Canada

Many individuals with a mental disorder fail to use mental health services, both in civilian and military populations. This study compares rates of twelve-month mental health service use (MHSU) with different types of professionals in three epidemiological surveys, two military and one civilian. The purpose of this three-way comparison is to capture improvements that may have taken place over a decade following mental health system renewal in the Canadian Armed Forces (CAF), and to compare MHSU between the CAF and a civilian sample. Data were drawn from the 2013 and 2002 CAF mental health surveys, as well as a 2012 survey of mental health in Canadian civilians (total N~40,000). A number of exclusions were applied to the civilian sample to make them comparable to the military samples. Prevalence rates for MHSU across different provider categories were calculated. Finally, a series of binary logistic regressions were conducted, controlling for sociodemographic and clinical variables. Across different provider types, MHSU rates were higher in CAF in 2013 compared to 2002, and higher in CAF compared to civilians, even after controlling for sociodemographic and clinical correlates. The implications of these results in the context of
resilience interventions, mental health education programs, and mental health system renewal in the CAF are discussed.

Symposium
Friday, November 6
10:00 a.m. to 11:15 a.m.
Salon F-H – Neuro Track

Neural Advances in Posttraumatic Stress Disorder

Liddell, Belinda, PhD
University of New South Wales, Sydney, New South Wales, Australia

How humans respond to trauma is strongly moderated by neural networks. This symposium will present four studies that use functional magnetic resonance imaging to address different psychopathological processes in PTSD. Each of these studies will report on magnetic resonance imaging paradigms to understand different subtypes, manifestations, and functions of PTSD. Using the latest methods in MRI, they will map the neural networks associated with dissociative responses in PTSD, and survival of extreme trauma such as torture in refugees. They will also report recent findings concerning the relationship between deployment on military service and hippocampal function, as well as how neural pathways are associated with how people remember their pasts and imagine their futures. Overall, these different studies provide insights into the neural processes that underpin many of the core questions currently being faced by the scholars of traumatic stress.

Neural Alterations in Autobiographical Memory and Future Thinking in PTSD
(Bio Med, Affect/Int-Bio Med-Bio/Int-Neuro, Adult, M, N/A)

Brown, Adam, PhD1; Fales, Christina, PhD1; Kouri, Nicole, BA1; Rahman, Nadia, BA2; Chen, Jingyun, PhD2; Addis, Donna Rose, PhD2; Schacter, Daniel, PhD3; Bryant, Richard, PhD3; Marmar, Charles, MD1
1New York University School of Medicine, New York, New York, USA
2NYU School of Medicine/Bellevue Hospital, New York, New York, USA
3University of Auckland, Auckland, New Zealand
4Harvard, Cambridge, New York, USA
5University of New South Wales, Sydney, New South Wales, Australia

Studies show that individuals with Posttraumatic Stress Disorder (PTSD) tend to recall autobiographical memories with decreased episodic specificity. A growing body of research from clinical, cognitive, and brain imaging studies has demonstrated that the mechanisms involved in recalling autobiographical memories overlap considerably with those involved in imagining the future. Consistent with these findings, several behavioral studies have shown that individuals with PTSD recall and imagine personal events with less episodic richness. This study aimed to identify the underlying neural alterations that might contribute to this phenomenon. OEF/OIF veterans with and without PTSD were presented with 40 positive and 40 negative cue words while undergoing fMRI scanning and were asked to generate either personal past or future events. fMRI analyses show that individuals with PTSD exhibit less activation in brain regions associated with autobiographical memory and future thinking. Specifically, analyses showed that individuals with PTSD showed reduced activity in the VLPFC when recalling positive memories and reduced activation in the PCC, Frontopolar PFC, VMFPC, and the Inferior Temporal Gyrus when imagining positive future events. Clinical implications will be discussed.

The Dissociative Subtype of Posttraumatic Stress Disorder: Unique Resting-State Functional Connectivity of Basolateral and Centromedial Amygdala Complexes
(Bio Med, Anx-Bio Med, Adult, M, Global)

Lanius, Ruth, MD, PhD1; Nicholson, Andrew, BSc2; Densmore, Maria, BSc2; Frewen, Paul, PhD3; Theberge, Jean, PhD3; Neufeld, Richard W.J., PhD2; McKinnon, Margaret, PhD4
1University of Western Ontario, London, Ontario, Canada
2University of Western Ontario, Depts of Psychiatry and Psychology, London, Ontario, Canada
3Lawson Health Research Institute, London, Ontario, Canada
4McMaster University, Hamilton, Ontario, Canada

Background: Differential connectivity patterns among basolateral (BLA) and centromedial (CMA) amygdala regions in patients with posttraumatic stress disorder (PTSD) as compared to trauma-exposed controls have recently been suggested. However, amygdala connectivity in PTSD patients with the dissociative subtype remain unknown. The objective of the current study was to compare connectivity patterns of the BLA and CMA complexes between PTSD patients with and without the dissociative subtype. Methods: PTSD patients (n = 49), with (n = 13) and without (n = 36) the dissociative subtype underwent resting-state fMRI. BLA and CMA connectivity was examined using a seed-based approach. Results: Dissociative subtype PTSD patients exhibited greater amygdala connectivity to prefrontal regions involved in emotion regulation (bilateral BLA and left CMA to the middle frontal gyrus and bilateral CMA to the medial frontal gyrus) as compared to the non-dissociative subtype group. In addition, the dissociative subtype group demonstrated greater amygdala connectivity to regions involved in consciousness, awareness, and proprioception, phenomena relevant to symptoms of depersonalization and derealization, as compared to the nonsubtype group. Conclusions: These findings suggest unique biological markers of the dissociative subtype of PTSD.
The Dissociative Impact of Torture Severity, PTSD Symptoms and Contextual Stress on Fear Processing Networks in Refugee Torture Survivors (Bio Med, Comm/Int-Refugee-Torture-Neuro, Adult, M, Global)

Liddell, Belinda, PhD; Cheung, Jessica, PhD, Cpsych; Felmingham, Kim, PhD; Malhi, Gin, PhD; Bryant, Richard, PhD

1University of New South Wales, Sydney, New South Wales, Australia
2University of Tasmania, Hobart, Tasmania, Australia
3University of Sydney, St Leonards, New South Wales, Australia

Neuroimaging studies of PTSD tend to focus on associations between brain activity and PTSD severity without also accounting for degree of trauma exposure and current contextual stressors. This is critical when considering PTSD-related functional impairments in traumatized refugees, who are often dealing with significant resettlement stressors that impede recovery. In a sample of torture survivors with a refugee background, we aimed to examine how three predictors: 1) severity of torture exposure; 2) current PTSD symptoms; 3) perceived resettlement difficulties, modulated neural responses to threat in a multivariate regression model. Torture severity was associated with enhanced medial prefrontal regions and the cerebellum activity, consistent with an over-modulation dysregulation profile. PTSD severity predicted elevated salience network engagement, encompassing the insula, inferior frontal gyrus (ventrolateral prefrontal) and dorsolateral prefrontal regions. Living difficulties were associated with enhanced activity in the right caudate, associated with enhanced novelty response to fear. The findings highlight the importance of considering multiple factors, including the influence of context, when considering the specific fear processing deficits associated with torture exposure and the refugee experience.

Is There a Hippocampal Signal in Younger Veterans with Warzone PTSD? (Assess Dx, Mil/Vets-Neuro, Adult, M, Global)

Chen, Jingyun, PhD; Mueller, Susanne, MD; Ardekani, Babak, PhD; Gonzalez, Bryan, BSc; Marmar, Charles, MD

1New York University School of Medicine, New York, New York, USA
2UCSF School of Medicine, San Francisco, California, USA
3Nathan Kline Institute, Orangeburg, New York, USA

Combat related PTSD is one of the major health issues for Iraq and Afghanistan veterans. In search for neuroimaging-based biomarkers for PTSD, we investigated the hippocampal signal from Magnetic Resonance Imaging (MRI) data of 104 subjects, including 52 PTSD positive subjects and 52 healthy control subjects matched by age, gender and ethnicity. A whole brain T1 and a T2 hippocampal high resolution (0.4x0.4x2mm) image perpendicular to the hippocampus were acquired on a Siemens 3T Trio scanner. Total hippocampal volumes were obtained from the T1 image using Freesurfer and hippocampal subfields (CA1, CA1-2, dentate and CA3) were manually marked on the high resolution T2 image. Linear regression was used to test for PTSD effects and to correct for differences of head sizes, age and ethnicity. No significant difference was detected between PTSD and control, in the volume of total or subfield hippocampus. The results suggest that volumetric features may not be biomarkers of warzone PTSD in younger veterans. We are currently exploring hippocampal morphometric features including weighted spherical harmonic (SPHARM) and hippocampal integrity, defined as the ratio of the parenchymal voxels (as oppose to CSF) to the total number of voxels. We will present morphometric findings at the conference.

Panel Presentation
Friday, November 6
10:00 a.m. to 11:15 a.m.
Balcony J-K – Public Health Track

Unprofessional Association: U.S Health Professional Complicity with Torture (Social, Comm/Vio-Global-Rights, N/A, M, Industrialized)

Keller, Allen, MD; Reisner, Steven, PhD; Soldz, Stephen, PhD; Raymond, Nathaniel, BA; Allen, Scott, MD

1New York University School of Medicine, New York, New York, USA
2Coalition for Ethical Psychology, New York, New York, USA
3Boston Graduate School of Psychoanalysis, Brookline, Massachusetts, USA
4Harvard University, Cambridge, Massachusetts, USA
5University of California, Riverside, School of Medicine, Riverside, California, USA

There is a clear evidence that U.S. health professionals, particularly psychologists and the American Psychological Association (APA), played a central role in developing, implementing and justifying the Bush Administration's "Enhanced Interrogation" torture program. In the case of the APA, this involved systematic collusion with the CIA and the Bush White House, and in the process a wholesale betrayal of ethics and the core values of what it means to be a profession. In this panel discussion, we will summarize the evidence documenting these profound violations of professional ethics, their harmful and traumatic impact on detainees, interrogators, the health professions and broader society. Most importantly, we will explore means for preventing participation of health professionals in torture, and torture itself, as well as reining the dignity of our professions. The panel includes individuals with years of expertise on these issues and from diverse fields including, psychology, medicine, bioethics, and human rights. The audience will be engaged in discussion on this sentinel professional ethics issue of our time.
Symposium
Friday, November 6
10:00 a.m. to 11:15 a.m.
Balcony L-M – Assessment and Diagnosis Track

PTSD Symptom Clusters Are Differentially Related to Psychopathology
(Assess Dx, Depr, Adult, M, Industrialized)

Elhai, Jon, PhD
University of Toledo, Toledo, Ohio, USA

Posttraumatic stress disorder (PTSD) is included in a diverse collection of symptoms, including the more traditional posttraumatic reexperiencing symptoms, as well as symptoms of dysphoric mood that are seen in anxiety and mood disorders. In the present symposium, we have four presentations of empirical studies using diverse trauma-exposed samples including military veterans, college students and disaster victims. Findings are reported on associations between PTSD’s symptom clusters and externalizing behaviors using Wald Chi Square tests. Results:
The correlations between factors decreased when NA was added to the model, and the greatest standardized coefficients ranging from .464 (Avoidance) to .846 (Anxiety). The correlations between factors decreased when NA was added to the model, and the greatest attenuation was between NAMC and Anxiety (r = .812 to r = .108). Results suggest that NA accounts for a significant amount of the shared variance between PTSD, depression, and anxiety’s latent factors.

Negative Affect and Its Underlying Relationships with PTSD, Depression, and Anxiety
(Assess Dx, Anx-Depr-Theory, Adult, M, Industrialized)

Bylesby, Brianna, BA1; Charak, Ruby, MA, PhD Student2; Elhai, Jon, PhD3
1University of Toledo, Department of Psychology, Toledo, Ohio, USA
2VU University, Amsterdam, North Holland, Netherlands
3University of Toledo, Toledo, Ohio, USA

Distress disorders, such as posttraumatic stress disorder (PTSD), unipolar depression, and generalized anxiety, are highly comorbid, and this relationship has been theorized to be the result of common variance due to negative affect (NA). This study attempts to understand this shared variance by examining the latent relationships between these disorders. The present sample consisted of a non-clinical sample of 196 trauma-exposed individuals who completed self-report measures for PTSD (PCL-5), depression (PHQ9), anxiety (GAD7), and NA (PANAS-NA). Confirmatory factor analysis (CFA) was conducted and good fit was established for a combined 7-factor model, $\chi^2$ (185) = 1001.84, p < .001, CFI = .95, TLI = .95, RMSEA = .062 (90% CI: .055-.069), encompassing: 4 PTSD factors (Re-experiencing, Avoidance, NAMC, and AAI), 2 depression factors (somatic and non-somatic), and 1 generalized anxiety factor. Then NA was regressed on each of the factors. All distress disorder factors were significantly related to negative NA, with standardized coefficients ranging from .464 (Avoidance) to .846 (Anxiety). The correlations between factors decreased when NA was added to the model, and the greatest attenuation was between NAMC and Anxiety (r = .812 to r = .108). Results suggest that NA accounts for a significant amount of the shared variance between PTSD, depression, and anxiety’s latent factors.

Six Factor Model of DSM-5 PTSD Symptoms that Includes Externalizing Behaviors
(Assess Dx, Assess Dx-Health-QoL-Mil/Vets, Adult, M, Industrialized)

Tsai, Jack, PhD1; Pietrzak, Robert, PhD2; Southwick, Steven, MD3
1Yale University School of Medicine; VA Connecticut Healthcare System, West Haven, Connecticut, USA
2National Center for PTSD, West Haven, Connecticut, USA
3National Center for PTSD Clinical Neurosciences Division/Yale University Dept. of Psychiatry, West Haven, Connecticut, USA

Objective: Evaluate the dimensional structure of DSM-5’s PTSD symptomatology and examine how PTSD symptom clusters are related to depression, anxiety, suicidal ideation, hostility, physical and mental health-related

Conclusion: A 7-factor hybrid model provides superior fit to DSM-5 PTSD symptom data with the externalizing behaviours factor being most strongly related to anger and impulsivity.
functioning, and quality of life. **Methods:** Data were analyzed from the National Health and Resilience in Veterans Study, a nationally representative survey of 1,484 U.S. veterans conducted September to October 2013. Confirmatory factor analyses were conducted to evaluate the factor structure of PTSD symptoms and structural equation models were constructed to examine the association between PTSD symptom clusters and external correlates. **Results:** A five-factor dysphoric arousal model and a newly proposed six-factor model both fit the data significantly better than the DSM-5 four-factor model. The emotional numbing symptom cluster was more strongly related to depression and worse mental health-related functioning than other symptom clusters, while the externalizing behavior symptom cluster was more strongly related to hostility. **Conclusion:** A six-factor model of DSM-5 PTSD symptoms, which builds on extant models and includes a sixth externalizing behavior factor, provides the best dimensional representation of DSM-5 PTSD symptom clusters and demonstrates validity in assessing health outcomes of interest in this population.

**Testing the Dimensional Structure of DSM-5 Posttraumatic Stress Disorder Symptoms in Trauma-Exposed Chinese Adolescents**

(Clin Res, Anx-Assess Dx-Depr-Nat/Dis, Child/Adol, M, E Asia & Pac)

**Wang, Li, PhD; Wang, Richu, PhD; Cao, Xing, MA, PhD**

Student

**Key Laboratory of Mental Health, Institute of Psychology,**
**Chinese Academy of Sciences, Beijing, China**

The current study investigated the underlying dimensionality of DSM-5 posttraumatic stress disorder (PTSD) symptoms in a sample of trauma-exposed Chinese adolescents using a confirmatory factor analytic (CFA) alternative models approach. The final effective sample consisted of 559 students (242 females and 314 males) ranging in age from 12 to 18 years (M = 15.8, SD = 1.3). CFA results indicated that a seven-factor model comprised of intrusion, avoidance, negative affect, anhedonia, externalizing behavior, anxious arousal, and dysphoric arousal factors fit the data significantly better than the other theoretically and empirically driven alternatives. Further analyses showed that external measures of psychopathological variables including major depressive disorder, panic disorder, and aggressive behavior were differentially associated with the resultant factors. These findings support and extend previous findings for the newly refined seven-factor hybrid model, contribute to very limited literature on the dimensional structure of DSM-5 PTSD symptoms in youths, and carry clinical and research implications for trauma-related psychopathology.
Symposium
Friday, November 6
1:00 p.m. to 2:15 p.m.
Galerie 2 – Cognitive Processes/Interventions Track

Psychological and Physiological Features of Traumatic Memory Processing
(Bio Med, Cog/Int, Adult, M, Global)

Chou, Chia-Ying, PhD
UCSF Department of Psychiatry, San Francisco, California, USA

Addressing the highly arousing and vivid traumatic memories is one of the key elements in the treatment for posttraumatic stress disorder (PTSD). In order to shed light on the mechanisms of traumatic memory processing, various phenomena related to the recollection of trauma have been widely investigated. The presented symposium aims to illustrate the psychological and physiological profiles of PTSD participants and trauma victims during sessions of script-driven imagery and voluntary recall. The language contents and responses of the autonomic nervous systems among PTSD patients to a script-driven imagery will be presented and compared with depressed patients in our first talk. Next, the changes in psychophysiological reactivity to a script-driven imagery, and their associations with the treatment outcomes brought by two types of PTSD therapy will be presented by our second speaker. Finally, the cardiovascular activities of individuals with PTSD during a voluntary recall of trauma will be shown, and discussed in terms of their associations with concurrent dissociation and flashbacks.

A Multi-Method Comparison of Intrusive Memories in PTSD and Depression Using Self-Report, Language Based Measures and Heart Rate (HR) and Skin Conductance (SC) Reactivity during Script Driven Imagery
(Clin Res, Affect/Int-Cog/Int-Depr, Adult, M, Industrialized)

O’Kearney, Richard, PhD
Australian National University, Canberra, ACT, Australia

This presentation describes a study using a multi-method approach to contrast the nature of intrusive memories (IMs) of trauma in PTSD and IMs in depression. Participants with major depression without PTSD (n=28), PTSD participants (n=29) and non-disordered controls (n=30) identified intrusive and voluntary segments of narrative memories of key events. Self-report and language measures of memory quality as well as heart rate (HR) and skin conductance (SC) reactivity during event recall were obtained. IMs in PTSD were distinguished from the other groups’ IMs by higher distress, higher sensory quality and a higher proportion of sensory words in the narrative. The depressed and control groups did not differ on IM quality. PTSD participants showed higher HR and SC reactivity during trauma recall compared to depressed participants and higher HR reactivity compared to non-disordered participants. There was a consistent trend towards attenuation of reactivity to IMs for those with depression. The presence of depression in PTSD did not impact on reactivity or memory quality. Intrusive remembering in PTSD is distinctive from comparable remembering in depression in having a stronger sensory quality and in triggering high physiological reactivity. Basic sensory processes contribute to the intrusiveness of remembering in PTSD but not in depression.

Psychophysiological Alterations Following Cognitive Processing Therapy with Hypnosis
(Bio Med, Bio/Int-Rape, Adult, M, Industrialized)

Griffin, Michael, PhD; Galovski, Tara, PhD; Werner, Kimberly, PhD
University of Missouri St. Louis, St. Louis, Missouri, USA

Treatment outcome studies of cognitive processing therapy (CPT) have shown strong efficacy in the treatment of PTSD (Resick, et. al., 2002; 2008). Most research uses self-report and clinical interviews to assess symptoms. Few studies examine more objective indices of treatment outcome. We examined treatment outcome using psychophysiological measures (HR, SCR) in a script-driven imagery paradigm (Pitman, et. al., 1987) with female survivors of rape & physical assault. We compared standard CPT treatment (n=25) to CPT with an added hypnosis component (n=26). ANOVA findings revealed no significant difference on the total score from the clinician administered PTSD scale (CAPS) or the Beck depression inventory (BDI) between groups at pre-treatment or at posttreatment. A significant decrease in PTSD and depressive symptoms was observed in both groups from pre- to posttreatment indicating a significant treatment effect (both measures p<.001). Script-driven imagery data revealed no difference in heart rate response to trauma scripts or trauma imagery at pre- or posttreatment. However, both groups displayed a significant reduction in heart rate reactivity from pre- to posttreatment to the trauma scripts and trauma imagery (p<.05). Results will be discussed in terms of the relationship between psychophysiological reactivity and treatment outcome in trauma survivors.
Cardiovascular and Psychological Responses to the Voluntary Recall of Trauma in PTSD
(Bio Med, Cog/Int, Adult, M, N/A)

Chou, Chia-Ying, PhD
UCSF Department of Psychiatry, San Francisco, California, USA

Voluntary recall of trauma is a key element in exposure-based psychotherapies and can trigger spontaneous flashbacks and episodes of depersonalization or derealisation. In order to examine cardiovascular responses to trauma recall, and their associations with trait dissociation and changes in psychological state, PTSD patients recalled a traumatic and a neutral memory. Heart rate (HR) and heart rate variability (HRV) was recorded continuously and specific occurrences of dissociative reactions within the narrative were identified. We found a significant increase in vagal activity during the trauma recall, compared to the neutral recall, with greater vagal dominance being indicative of greater state dissociation. Whereas overall decreases in HR during the trauma recall were associated with increased fear and perceived threat, flashbacks were accompanied by short-term increases in HR. Trait dissociation was unrelated to cardiovascular and psychological responses. The current findings demonstrated several different types of cardiovascular response associated with different aspects of trauma recall. Clinical implications and future research directions were discussed.

Master Clinician
Friday, November 6
1:00 p.m. to 2:15 p.m.
Galerie 3 – Affective Processes/Interventions Track

Acceptance and Commitment Therapy for Trauma: Finding Life beyond the Pain
(Practice, Affect/Int-Clinical Practice-QoL, Lifespan, M, Global)

Walser, Robyn, PhD
National Center for PTSD, Dissemination and Training Division University of California, Berkeley, Menlo Park, California, USA

Acceptance and Commitment Therapy (ACT) is a principle-based behavioral intervention designed to address human suffering in a mindful and compassionate way. Many individuals who have experienced a trauma suffer due to painful memories, feelings and thoughts related to their traumatic experience. Avoidance or control of these private experiences is often seen as a solution to suffering. This kind of control, however, can lead to further difficulty in returning to valued activities in life. One therapeutic alternative to emotional or experiential avoidance is acceptance. Acceptance may create a new context from which the trauma survivor views the world and the self. ACT focuses on helping clients to accept their emotions and accompanying bodily sensations, unwanted thoughts, and other internal experiences that seem to be barriers to healthy living. It re-orient clients to values-based behaviour that is instantiated by making and keeping commitments and by creating ever larger patterns of behavioural change. The client is guided to experience internal events without excessive control. The ultimate goal is psychological flexibility in the service of a more workable life. In this Master Clinician Series we will broadly explore the core components of ACT and demonstrate how they are applied in a flexible and targeted fashion to the individual suffering from the fallout of trauma.
Predicting Trauma Paper Session
Friday, November 6
1:00 p.m. to 2:15 p.m.
Galerie 4 – Public Health Track

Do Type and Timing Matter? Examining the Predictive Role of Age of First Exposure on Specific PTSD Symptoms in a Sample of Polyvictims
(Clin Res, CPA-Chronic-Complex-DV, Adult, M, Industrialized)

Miller-Graff, Laura, PhD; Scrafford, Kathryn, PhD Student; Rice, Catherine, Undergraduate
University of Notre Dame, Notre Dame, Indiana, USA

The effects of exposure to violence are more complex and severe if exposure happens at earlier ages (Cloitre, et al., 2009). To date, research on the role of age of violence exposure on symptom presentation has focused primarily on maltreated children and the effect of age of onset on total PTSD symptom severity. This study aimed to examine specific associations between type and timing of violence exposure on specific PTSD symptom domains in a sample of adults exposed to multiple types of violence in childhood (n=289). Results indicated that earlier exposure to child maltreatment and witnessed/indirect violence were significantly related to symptoms of hypervigilance and negative cognition (r=-.16-.20, p<.05) while later exposure to peer/sibling violence was significantly related to re-experiencing symptoms (r=.18-.19, p<.05). Multivariate regression analyses indicated that age of first exposure to any type of violence significantly moderated the relationship between violence exposure and symptoms of hypervigilance (F(264)=3.11, p<.001; R2=7.9%; \( \beta=-.40, p=.03 \)). These findings suggest that early exposure, especially to maltreatment and witnessed violence, has strong effects on the presence of later symptoms of hypervigilance, in particular. This is indicative of the long-term effects that these types of violence may have on key regulatory systems (e.g., HPA axis functioning).

Predictors of Mental Health Service Utilization in Injured Trauma Survivors
(Practice, Acc/Inj-Acute-Assess Dx, Adult, I, N/A)

Simiola, Vanessa, MA1; Hunt, Josh, MA, PhD Student2; deRoon-Cassini, Terri, PhD3
1Medical College of Wisconsin, Milwaukee, Wisconsin, USA
2University of Wisconsin - Milwaukee, Milwaukee, Wisconsin, USA

Little is known about predictors of mental health service utilization in injured trauma survivors. The American College of Surgeons has recommended Level-1 trauma centers screen for posttraumatic stress disorder (PTSD). Using a sample of patients admitted to a Level-1 trauma center (N=101), this study examined the predictability of demographic variables (i.e. age, gender, education level) and a new PTSD screen (Injured Trauma Survivors Screen [ITSS]) developed specifically for the traumatic injury population, on health service utilization one and six-months following traumatic injury. The full model at one-month follow-up was significant, \( \chi^2 (6, N=101) = 18.15, p <.05 \), with females and individuals with higher endorsement of ITSS screen items being significantly more likely to seek treatment. Total score on the Posttraumatic Stress Disorder Checklist-5 (PCL-5) and other demographic variables were not significant predictors within the model. Together, these results suggest the ITSS measure may be a stronger predictor of future service utilization than the PCL-5, when administered immediately after traumatic injury. Additionally, given higher rates of PTSD among male assaultive trauma survivors, these results suggest targeted efforts may be warranted to improve treatment-seeking behaviors in this population.

Risk Factors for a Late Onset Psychiatric Disorder in Survivors of Severe Injury
(Prevent, Acc/Inj-Res Meth, Adult, M, N/A)

Nathan, Alkemade, PhD
ACPMH, University of Melbourne, Melbourne, Victoria, Australia

Objective: Late onset of psychopathology after trauma is common. Little is known about the risk factors which could inform the development of screening, assessment and intervention practices. This study investigates risk factors for late onset disorders up to 72 months after a severe injury.

Method: A longitudinal study of 1167 hospitalized severe injury patients were analyzed with repeated measures at 3, 12 and 72 months after injury. Latent transition analyses with covariates (injury severity, social support, recent life events, pain and a psychiatric disorder before injury) were conducted to identify risk factors for late-onset disorders over two transition points: 3 to 12 months (T1), and 12 to 72 months (T2) post-injury.

Results: Latent class analysis found three disorder based, and one no disorder, clusters. Movement into PTSD/Depression class was predicted by injury severity (T1 & T2), social support (T1) and a history of mood/anxiety disorders. Into the Alcohol class was predicted by injury severity (T1 & T2), social support (T1 & T2), injury severity, and pain (T2) and a history of substance use. Into the Alcohol/Depression class was predicted by pain (T2) and a history of substance use. Conclusion: Predictors of a late onset disorders differed between transition points and by disorders. Findings highlight the need for targeted screening based on these risk factors to severe injury survivors.

(Res Meth, CPA-Dev/Int, N/A, M, N/A)

Lauterbach, Dean, PhD1; Poehammer, Stefanie, Doctoral Student1; Chow, Chong, PhD2; Armour, Cherie, PhD2; Phillips, David, Doctoral Student1; Guyon-Harris, Katherine, MS, PhD Student1
Growth Mixture Modeling (GMM) is a person-centered data analytic technique that allows for the identification of homogenous clusters (classes) of persons based on symptom trajectory over time. This technique also allows researchers to test predictors of class membership and the relationship between class membership and various distal outcomes. This is a technique that has seen increasing popularity in the area of traumatic stress studies. However, there are a number of challenges associated with the use of this technique that, if misapplied, can result in inaccurate or misleading results. Consequently, the purpose of this workshop is to provide a user-friendly guide for the conduct of GMM with a special emphasis on problematic issues that frequently emerge in data analysis and which represent key decision points. To accomplish this task we will walk the audience through an example of an unconditional GMM with no covariates, a conditional GMM with covariates, and a GMM with a distal outcome. In addition, this example will include a discussion of strategies for treatment of missing data. Data for the example will be drawn from the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN), which includes a sample of 1354 victimized or at risk children.

Other Interventions Track Paper Session
Friday, November 6
1:00 p.m. to 2:15 p.m.
Galerie 5 – Other Interventions Track

Gender Differences in Veterans’ Posttraumatic Stress Symptom Improvement after Couples/Family Psychotherapy

Laws, Holly, PhD1; Hoff, Rani, PhD MPH2
1 Yale University School of Medicine, New Haven, Connecticut, USA
2 Yale University School of Medicine, National Center for PTSD, West Haven, Connecticut, USA

There has been increasing support for family involvement in veterans’ mental health care. Recent VA policy recommends the inclusion of family members in veterans’ mental health care and evidence-based couples therapy has begun rollout at the VA. This study assessed the impact of couples/family psychotherapy on veterans’ posttraumatic stress symptoms using national administrative data. Veterans were selected from a larger study of veterans who participated in family psychotherapy (FY 2004-2012). Data were extracted for the 12 months prior to and following the first family session. The present study is a subsample of veterans who had at least one posttraumatic stress checklist (PCL) measured before and after the first family session (N = 6269). Within-person multilevel regression models with random effects were estimated to assess changes in PCL scores. Results showed a significant decline in PCL scores after the first family session (β = -2.36, p < .001). Further analyses revealed moderators of this effect. Women veterans (9% of sample) showed a more pronounced decline in PCL scores than men (β = -1.37, p < .001), as did married (63% of sample) versus single veterans (β = -1.22, p < .001). Improvements were strongest when veterans participated for at least 8 sessions (β = - .96, p = .030). Results suggested that couples/family psychotherapy can aid veterans’ PTSD recovery.

Integrating Mental Health into Countering Violent Extremism

Weine, Stevan, MD1; Ellis, Heidi, PhD2; Polutnik, Chloe, MPH3
1 University of Illinois Chicago, Chicago, Illinois, USA
2 Children’s Hospital Boston, Boston, Massachusetts, USA

Countering violent extremism (CVE) is “a realm of policy, programs, and interventions designed to prevent individuals from engaging in violence associated with radical political, social, cultural, and religious ideologies and groups.” Mental health professionals, including from trauma mental health, can play valuable roles in the three levels of CVE, including prevention (e.g. community strengthening), early intervention...
Lethal acts of violence effecting college campuses need further empirical investigation, to better understand their impact and the provision of trauma-informed services. A survey of 1,168 undergraduates explored student-rated usefulness of various resources following a mass murder. On average, participants found community activities implemented by the university after the tragedy to be helpful. Memorial events, such as an ocean paddle out and candlelight vigil, were the highest rated activities. Notably, counseling was also one of the highest rated services, particularly on-campus drop-in counseling. Personal coping strategies participants found helpful included exercise and social interactions, such as spending time with friends or talking to faculty. Preliminary qualitative analysis of student recommendations for response revealed themes of social support, increasing understanding/empathy from professors, creating a permanent memorial on campus, and protecting students' from media. Results have implications for integrating clinical and scientific knowledge in providing responses to future events of mass violence in university settings; highlighting the need for strong campus social supports, community-wide memorials that acknowledge the traumatic event, easily accessible counseling services, and mitigating the harm that media activity may induce on a university population.

**Service Utilization in the Aftermath of a University Mass Murder: Integrating Clinical and Scientific Knowledge**


Modir, Sheila, MSW; Kia-Keating, Maryam, PhD; Liu, Sabrina, Doctoral Student

*University of California, Santa Barbara, Santa Barbara, California, USA*

Aims: Parents' emotional reactions to their child's trauma have been shown to relate to child's symptoms and functioning. The aim of this study was to investigate the level of parental emotional reactions in a sample of parents whose youth experienced the 22nd July 2011 shooting on Utøya Island in Norway, and to investigate whether these reactions were influenced by their youth's symptom level, age, and whether the responder was a mother or a father. Method: 531 parents of exposed youth were asked about their emotional reactions to their youth's trauma at two time points. The reactions were measured using the Parental Emotional Reaction Questionnaire (PERQ), and youth PTS symptoms were measured using the UCLA PTSD Reaction Index (PTSD-Ri). Mixed effects models were estimated to investigate the youth's PTS-symptoms, age, and parental responder's impact on parental emotions. Results: The results showed that higher levels of youth-reported symptoms were related to higher levels of parental emotional reactions at both time points. Furthermore, the older the youth, the more parental emotional activation at wave two, whereas the mothers' were more emotionally activated than fathers at both time points. Discussion: Clinical implications of these findings and suggestions for future research will be discussed.

**Emotional Reactions in Parents of Youth Experiencing the 22nd July Utøya Shooting**

(Prevent, Fam/Int-Terror, Lifespan, M, Industrialized)

Holt, Tonje, PhD; Jensen, Tine, PsyD; Dyb, Grete, MD, PhD

*Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Norway*

Aims: Parents’ emotional reactions to their child’s trauma have been shown to relate to child's symptoms and functioning. The aim of this study was to investigate the level of parental emotional reactions in a sample of parents whose youth experienced the 22nd July 2011 shooting on Utøya Island in Norway, and to investigate whether these reactions were influenced by their youth’s symptom level, age, and whether the responder was a mother or a father. Method: 531 parents of exposed youth were asked about their emotional reactions to their youth’s trauma at two time points. The reactions were measured using the Parental Emotional Reaction Questionnaire (PERQ), and youth PTS symptoms were measured using the UCLA PTSD Reaction Index (PTSD-Ri). Mixed effects models were estimated to investigate the youth’s PTS-symptoms, age, and parental responder’s impact on parental emotions. Results: The results showed that higher levels of youth-reported symptoms were related to higher levels of parental emotional reactions at both time points. Furthermore, the older the youth, the more parental emotional activation at wave two, whereas the mothers' were more emotionally activated than fathers at both time points. Discussion: Clinical implications of these findings and suggestions for future research will be discussed.
Symposium
Friday, November 6
1:00 p.m. to 2:15 p.m.
Galerie 6 – Child Trauma Track

Gender Differences in the Associations among Sexual Victimization and Behavioral, Emotional, and Health Outcomes for Youth
(Social, Assess Dx-CSA-Chronic, Child/Adol, M, Industrialized)

Kerig, Patricia, PhD
University of Utah, Salt Lake City, Utah, USA

Youth represent more than 20% of the global population and have been declared a priority group for this decade (WHO, 2014). In particular, sexual victimization (SV) of youth is a major health risk factor, with a global prevalence encompassing almost 10 million young people, associated with significant physical, behavioral, and emotional problems. However, our understanding of this issue is limited by a lack of research assessing the full range of populations vulnerable to SV, including youth involved in commercial sexual exploitation, child welfare and justice systems, and a dearth of attention to the victimization of males. To this aim, the present international symposium brings together researchers from four separate laboratories whose work sheds new light on these understudied populations, including SV among Canadian youth in care, with special attention to the previously neglected study of males who were not sexually victimized were most likely to be involved in delinquency. Implications for understanding the links between sexual victimization and delinquency will be discussed.

CSA, Gender, Sexual Risks, and Motives for Sex among CPS youth
(Clin Res, CSA-Chronic-Clinical Practice-Health, Child/Adol, M, Industrialized)

Wekerle, Christine, PhD
McMaster University, Hamilton, Ontario, Canada

Child sexual abuse (CSA) is a major health risk factor, where male CSA remains under-attended. Objectives: To evaluate the linkages among CSA, motives for sex, and sexual risk-taking in a CPS population of mid-adolescents, testing the moderator role of motives for sex. The Maltreatment and Adolescent Pathways (MAP) Longitudinal Study (N=561; Mean Age=15.5 years at intake) repeatedly queried CSA with the idea that disclosures may increase over adolescence.

Methods: Youth were randomly selected from active service caseloads; 561 youth completed initial assessment. Youth completed a self-report battery at 6-month intervals over 2-3 years. Caseworkers completed a form on maltreatment victimizations and youth functioning. Results: Overall CSA by youth self-report was 36%. Caseworker reports identified 15% of youth as CSA or CSA risk. CSA youth were more likely to report inconsistent sexual protection as compared to non-CSA, CPS youth. CSA youth endorsed higher partner approval motives for having sex than non-CSA youth. In predicting sexual risk behavior, males, CSA severity, partner approval, and CSA x partner approval interaction were significant unique contributors. Conclusions: CSA appears under-detected in CPS samples; male CSA remains an under-addressed concern. Results are discussed within trauma-informed approaches as applied to males.

Gender Differences in the Association between Sexual Victimization and Delinquency among a Community Sample of Adolescents
(Social, Aggress-CSA, Child/Adol, M, Industrialized)

Dierkhising, Carly, PhD
California State University Los Angeles, Los Angeles, California, USA

Retrospective reports of juvenile justice involved youth reveal higher rates of sexual victimization among females compared to males (Dierkhising et al., 2014). This consistent finding has led theorists to posit that sexual victimization is a stronger risk factor for delinquency among females compared to males. The current study explores whether there are gender differences in the relation between sexual victimization and delinquency prior to juvenile justice involvement, among a diverse community sample of adolescents (N=216; 44% male; 90% minority youth). Ten percent of male youth and 26.5% of female youth reported sexual victimization. Results indicate a significant main effect between sexual victimization and delinquency (β = .124, p < .05) and a significant main effect between gender and delinquency (β = .206, p < .01) while controlling for community violence exposure and physical abuse. Thus, being male and experiencing sexual victimization were both risk factors for delinquency. However, there was also an interaction effect (β = .515, p < .05) between gender, sexual victimization, and delinquency in that males who were not sexually victimized were most likely to be involved in delinquency. Implications for understanding the links between sexual victimization and delinquency will be discussed.

Gender Differences in the Sequelae of Childhood Sexual Abuse: An Examination of Borderline Features, Dissociation, Emotion Dysregulation, and Delinquent Behaviors among Detained Adolescents
(Clin Res, CSA, Child/Adol, M, Industrialized)

Chaplo, Shannon, Doctoral Student; Modrowski, Crosby, BA; Kerig, Patricia, PhD; Bennett, Diana, MS, PhD Student
University of Utah, Salt Lake City, Utah, USA
Sexual Exploitation among Students in Rural Western Canada: Gender Similarities, Persistent Trends, Risk and Protective Factors
(Social, CSA-Comm/Int-Pub Health, Child/Adol, M, Industrialized)

Saewyc, Elizabeth, PhD, RN¹; Nicholson, Dean, MA²
¹Univeristy of British Columbia, Vancouver, British Columbia, Canada
²East Kootenay Addiction Services Society, Cranbrook, British Columbia, Canada

Canada law defines sexual exploitation as exchanging sexual acts for money or other consideration under age 18. The stereotype is that girls, not boys, are exploited. Unlike most research examining this issue has focused on girls and far less is known about the sequelae of CSA for boys. To this end, the current study examined posttraumatic stress symptoms and associated problems (BPF, dissociation, and emotion dysregulation) in a sample of detained youth in the US. Participants included 557 boys and 200 girls. average age 16.12, sd=1.29, 43.1% ethnic minority. A history of CSA was endorsed by 9.3% of boys and 49.7% of girls. No differences were found in the rates of symptoms reported by sexually abused boys and girls. However, sexually abused boys reported higher rates of BPF, dissociation, and emotion dysregulation in comparison to boys without a history of CSA. Lastly, results of bootstrapped moderated mediation indicated that BPF statistically mediated the relation between CSA and self-reported delinquency for boys only. Dissociation and emotion dysregulation statistically mediated the relation between CSA and posttraumatic stress symptoms for boys and girls. BPF statistically mediated this association for boys only.

Symposium
Friday, November 6
1:00 p.m. to 2:15 p.m.
Acadia – Assessment and Diagnosis Track

Comorbid Depression and PTSD: From Population to Individual
(Clin Res, Assess Dx-Clin Res, Adult, M, Industrialized)

Flory, Janine, PhD¹; Palmieri, Patrick, PhD²
¹James J Peters VAMC/Mount Sinai School of Medicine, Bronx, New York, USA
²Center for the Treatment and Study of Traumatic Stress, Summa Health System, Akron, Ohio, USA

Comorbidity between posttraumatic stress disorder (PTSD) and major depressive disorder (MDD) is well-known to trauma researchers and clinicians, but each group views the comorbidity from a different perspective. The symposium will include four presentations that examine the comorbidity, ranging from population to individual with the aim of integrating scientific and clinical knowledge about the comorbidity. In the first presentation, Janine Flory will present an overview of the PTSD/MDD comorbidity research literature, including the potential impact of DSM-5 on rates of comorbidity. Ryan Salim will present data on the structure of PTSD/MDD using the PCL and PHQ-9 in more than 20,000 first responders to the World Trade Center attacks. Amy Lehrner will present findings assembled from several PTSD treatment studies using Prolonged Exposure with veterans to show the impact of comorbid MDD on symptom change and outcome. Finally, Laura Pratchett will present treatment case studies to illustrate approaches and challenges in treating veterans with comorbid PTSD and MDD. Patrick Palmieri will serve as Discussant for the symposium.

Depression as a Predictor and Outcome in Trauma Focused Therapy with Veterans
(Clin Res, Clinical Practice-Mil/Vets, Adult, M, Industrialized)

Lehrner, Amy, PhD¹; Bierer, Linda, MD¹; Koch, Erin, BS²; Yehuda, Rachel, PhD¹
¹James J Peters VAMC/Mount Sinai School of Medicine, Bronx, New York, USA
²Mount Sinai School of Medicine, New York, New York, USA

There is little research on the impact of Major Depressive Disorder (MDD) on the outcome of trauma focused therapies such as Prolonged Exposure (PE), or the degree to which these treatments reduce depression. This paper will present data from veterans with PTSD treated with PE in three research protocols and assessed at three time points (n=159; 145 males, 14 females). Recruitment is ongoing; a larger sample will be available for final analyses. The median age in this sample is 42; 30.2% also have an MDD diagnosis. As a predictor, MDD is associated with more severe PTSD at pre-treatment (F1,115=12.68, p=.001) and non-response to PE (chi square <.0001). In a regression
Comorbid Depression and PTSD: Clinical Case Studies
(Practice, Assess Dx-Clin Res-Depr, Adult, M, Industrialized)

Pratchett, Laura, PsyD; Yehuda, Rachel, PhD; Bierer, Linda, MD
James J Peters VAMC/Mount Sinai School of Medicine, Bronx, New York, USA

Epidemiologists routinely describe the high comorbidity between PTSD and Major Depressive Disorder. The diagnostic issue is relevant in the wake of the DSM-5. With the reduced emphasis on a fear-based model of PTSD and inclusion of other chronically negative mood states, there seems to be more room to subsume the chronic dysphoria of MDD under a diagnosis of PTSD. However, depression presents in diverse forms in patients with PTSD, and while this complexity may not be captured by epidemiological studies, it has real implications for clinicians. The presence of prior depression, severity of impairment, childhood experiences that contribute to depressogenic and shame-based cognitions, and current suicidality all have relevance for clinical decision making. Evidence-based psychotherapies and pharmacologic interventions for PTSD often have the benefit of reducing depressive symptoms, but depression may need to be stabilized to facilitate an individual’s motivation and capacity to engage in exposure treatments for PTSD. Three case examples will be used to explore these questions and illustrate some of the challenges of clinical work with individuals who present in this fashion: a case in which depression interferes with clinical progress, one in which depression and PTSD resolve through treatment, and one in which PTSD symptoms resolve but depression increases.

Transdiagnostic Dimensional Structure of Posttraumatic Stress and Major Depressive Symptoms in World Trade Center Responders
(Assess Dx, Depr-Health-Terror, Adult, M, Industrialized)

Salim, Ryan, MA Student; Feder, Adriana, MD; Mota, Natalie, PhD; Pietrzak, Robert, PhD, MPH
1Mount Sinai School of Medicine, Dept of Psychiatry, New York City, New York, USA
2Yale University School of Medicine, National Center for PTSD, New Haven, Connecticut, USA
3National Center for PTSD, West Haven, Connecticut, USA

Posttraumatic stress disorder (PTSD) and major depressive disorder (MDD) are highly comorbid after trauma. This presentation will present population level data from 21,891 World Trade Center (WTC) responders to illustrate rates of comorbidity and functional impairment when using common self-reported symptom measures of PTSD (PCL-S) and MDD (PHQ-9). We conducted an exploratory factor analysis (with maximum likelihood estimation) to examine the transdiagnostic dimensional structure of PTSD and MDD. This was followed by regression analyses to assess relationships between each factor, demographics, and alcohol misuse, functioning, and perceived need for mental health treatment. A 3-factor model consisting of threat, dysphoria, and vegetative symptoms best fit the data. Dysphoria symptoms were more strongly related to perceived need for mental health treatment than any other factors in police responders. Each factor also predicted higher likelihood of alcohol use problems in both nontraditional and police responders. This model explained more variance in global functional impairment than the native scales for both responder types. Results suggest that this transdiagnostic model may have particular utility in assessing concurrent global functional impairment. Further relationships for each factor and implications for use of this model in clinical treatment will be discussed.

Comorbidity between Posttraumatic Stress Disorder and Major Depressive Disorder: An Overview
(Assess Dx, Assess Dx-Clin Practice-Depr, Adult, M, Industrialized)

Flory, Janine, PhD; Yehuda, Rachel, PhD
1Mount Sinai School of Medicine/J.J. Peters VA Medical Center, New York, New York, USA
2J. J. Peters Veterans Affairs Medical Center; Mount Sinai School of Medicine, Bronx, New York, USA

Comorbidity between PTSD and MDD is common, with approximately half of people with PTSD also having a diagnosis of MDD. This presentation will outline competing explanations for this comorbidity. The first is that the high rate of comorbidity reflects imprecision in symptom classification. Support for this explanation would come from variability in comorbidity rates based on different versions of the Diagnostic and Statistical Manual (DSM), as there have been changes to the number of symptoms required for diagnosis of PTSD but not MDD. An alternative view is that the co-occurrence of PTSD and MDD represents a trauma-related phenotype that is distinct from MDD and reflects a fundamental dimension of risk for psychopathology following trauma exposure. Support for this explanation is less straightforward, but can be inferred from the research literature examining risk factors and biological correlates for the individual disorders, and where possible, for the comorbidity. For example, the presence of depressive symptoms in PTSD may best be conceptualized as reflecting an internalizing dimension that underlies vulnerability to PTSD and MDD. This presentation is designed to introduce the audience to relevant research and clinical challenges related to the comorbidity and will be followed by three presentations that will discuss the issue from the population to individual level.
An Analysis of Gene Expression in PTSD Implicates Genes Involved in the Glucocorticoid Receptor Pathway and Neural Responses to Stress
(Bio Med, Genetic, Adult, M, N/A)

Logue, Mark, PhD; Smith, Alicia, PhD; Baldwin, Clinton, PhD; Wolf, Erika, PhD; Guffanti, Giulia, PhD; Ratanantharathorn, Andrew, MA; Stone, Annianette, BS; Schichman, Steven, MD, PhD; Humphries, Donald, PhD; Binder, Elisabeth, MD, PhD; Arloth, Janine, MS; Menke, Andreas, MD; Uddin, Monica, PhD; Wildman, Derek, PhD; Galea, Sandro, MD, PhD; Aliello, Allison, MS, PhD; Koenen, Karestan, PhD; Miller, Mark, PhD

1VA Medical Center, Little Rock, Arkansas, USA
2Emory University School of Medicine, Atlanta, Georgia, USA
3Boston University School of Medicine, Boston, Massachusetts, USA
4National Center for PTSD at VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA
5Columbia University/NY State Psychiatric Institute, New York, New York, USA
6Columbia University, Mailman School of Public Health, New York, New York, USA
7VA Medical Center, Little Rock, Arkansas, USA
8Central Arkansas Veterans Healthcare System, Little Rock, Arkansas, USA
9VA Boston Healthcare System, MAVERIC, Boston, Massachusetts, USA
10Emory University, Atlanta, Georgia, USA
11Max Planck Institute of Psychiatry, Munchen, Germany
12University of Illinois, Champaign, Illinois, USA
13University of Illinois at Urbana-Champaign, Urbana, Illinois, USA
14University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Chapel Hill, North Carolina, USA
15Columbia University School of Public Health, New York, New York, USA

We examined the association between posttraumatic stress disorder (PTSD) and gene expression using whole blood samples from a cohort of trauma-exposed white non-Hispanic male veterans (115 cases and 28 controls). 10,264 probes of genes and gene transcripts were analyzed. We found 41 that were differentially expressed in PTSD cases versus controls (multiple testing corrected p<0.05). The most significant was DSCAM, a neurological gene expressed widely in the developing brain and in the amygdala and hippocampus of the adult brain. We then examined the 41 genes in a meta-analysis of two replication cohorts. We found significant associations for 7 genes (meta-analysis p<0.05), one of which (ATP6AP1L) survived multiple-testing correction. Candidate-gene analyses found support for differential expression of previously implicated genes: BDNF and the glucocorticoid receptor (GR) gene (NR3C1). Comparing the 41 differentially expressed genes to an experimentally derived set of glucocorticoid-responsive genes indicated that PTSD-associated genes were more likely to be regulated by the GR than expected by chance (39% vs. 26%, p=0.0017). Examining the function of these affiliates of the GR-signaling pathway may lead to important biomarkers of PTSD and potential targets for treatment.

Differential Methylation Patterns of PTSD Risk and Symptom Development after Combat Trauma in a Longitudinal PTSD Cohort
(Bio Med, Gen/Int-Mil/Vets-Genetic, Adult, M, Global)

Maihofer, Adam, MS; Nievergelt, Caroline, PhD; Mitchell, Colter, PhD; Stein, Murray, MD, MPH, FRCPC; Risbrough, Victoria, PhD; Baker, Dewleen, MD

1University of California, San Diego, La Jolla, California, USA
2University of California, San Diego; Center of Excellence for Stress and Mental Health, VASDHS, La Jolla, California, USA
3University of Michigan, Ann Arbor, Michigan, USA

Background: Post-traumatic stress disorder (PTSD) is suspected to be regulated in part by epigenetic factors. Patterns of DNA methylation change over time and may act as both risk factors and markers of symptom development. Methods: The Marine Resiliency Study (MRS) is a prospective study of US Marines deploying to conflict zones with longitudinal follow-up. Subjects included 64 initially healthy men who developed PTSD following combat exposure and 64 symptom-free controls with similar combat exposure. Methylation levels were measured in DNA from
Peripheral blood using the Illumina HumanMethylation450 Beadchip. Pre- and post deployment methylome were modeled as a function of PTSD status, combat exposure, and covariates using linear regression. Results: Preliminary findings indicate epigenome-wide significant CpG site differences between PTSD subjects and controls both at pre- and post-deployment (in GPC3 and KLK10, respectively). Analyses of these probes as well as additional sites in MRS and another independent longitudinal military replication studies will be presented. Conclusions: There are distinct methylation differences between PTSD subjects and controls both before and after trauma exposure, suggesting distinct methylation signatures for the “at risk” state as well as after development of PTSD, indication a potential utility of methylome profiles for diagnosis of PTSD.

Epigenetic Differences Seen in Age, Gender and Ethnicity-Matched PTSD Cases versus Controls

(Bio Med, Gen/Int-Mil/Vets-Genetic, Adult, M, N/A)

Jett-Tilton, Marti, PhD; Hammamieh, Rasha, PhD; Muhie, Seid, PhD; Gautam, Aarti, PhD; Yang, Ruoting, PhD; Wolkowitz, Owen, MD; Doyle Ill, Francis, PhD; Yehuda, Rachel, PhD; Ressler, Kerry, MD, PhD; Hood, Leroy, PhD, MD; Marmar, Charles, MD

1US Army CEHR, Fort Detrick, Maryland, USA
2US Army Medical Research and Materiel Command, Ft. Detrick, Maryland, USA
3National Institutes of Health, Bethesda, Maryland, USA
4Academic Medical Center, San Francisco, California, USA
5University of California, Santa Barbara, Santa Barbara, California, USA
6J. J. Peters Veterans Affairs Medical Center; Mount Sinai School of Medicine, Bronx, New York, USA
7Emory University School of Medicine, Atlanta, Georgia, USA
8Institute for Systems Biology, Seattle, Washington, USA
9New York University School of Medicine, New York, New York, USA

Chronic Posttraumatic Stress Disorder (PTSD) can encompass a series of physiological, immune, metabolic and psychological complications which, together lead to the dysfunctional state of chronic PTSD. It is the “aspects/features” of PTSD that has engaged our attention. The Clinician Administered PTSD Score (CAPS) based on the DSM IV/S expert designation of PTSD, describes inherent characteristics of PTSD which are official descriptors of the disorder. Our studies have identified multicom in changes in the PTSD cases vs the controls which display certain of those inherent signatures. Upon integration of the clinical information with a combination of epigenetics (DNA methylation), transcriptomics, selected proteomics, metabolomics and other systemic approaches, we have identified molecular signatures that characterize specific aspects of the disorder that enable an individualized approach to stratification of personnel, and potentially, determination of treatment efficacy.

DISCLAIMER: Research was conducted in compliance with all Federal requirements. Views expressed are those of the authors and do not constitute endorsement by the U.S. Army.

Preliminary Results from the Psychiatric Genomics Consortium PTSD Epigenetics Workgroup

(Bio Med, Gen/Int-Genetic, Adult, M, Global)

Ratanatharathorn, Andrew, MA, PhD Student; Boks, Marco, MD, PhD; Bromet, Evelyn, PhD; Guffanti, Guia, PhD; Koenen, Karestan, PhD; Logue, Mark, PhD; Luft, Benjamin, MD; Maitaier, Adam, MS; Miller, Mark, PhD; Mitchell, Colter, PhD; Ressler, Kerry, MD, PhD; Stein, Murray, MD, MPH, FRCP; Vermetten, Eric, MD, PhD; Uddin, Monica, PhD; Nievergelt, Caroline, PhD; Smith, Alicia, PhD; PGC-PTSD, Epigenetics Workgroup

1Columbia University, Mailman School of Public Health, New York, New York, USA
2University Medical Centre Utrecht, Utrecht, Netherlands
3Stony Brook University, Stony Brook, New York, USA
4Columbia University/NY State Psychiatric Institute, New York, New York, USA
5Columbia University School of Public Health, New York, New York, USA
6VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA
7University of California, San Diego, La Jolla, California, USA
8University of Michigan, Ann Arbor, Michigan, USA
9Emory University School of Medicine, Atlanta, Georgia, USA
10Military Mental Health Research/UMC Utrecht, Utrecht, Netherlands
11University of Illinois, Champaign, Illinois, USA
12University of California, San Diego; Center of Excellence for Stress and Mental Health, VASDHS, La Jolla, California, USA

Background: Post-traumatic stress disorder (PTSD) results from trauma, but not all individuals develop PTSD after trauma. Epigenetic differences may serve as indicators of PTSD risk or resilience. Methods: The PGC-PTSD combined epigenome-wide data from 7 studies (4 military and 3 civilian cohorts) resulting in a group of 1,560 current PTSD and trauma-exposed controls. DNA methylation was measured in whole blood using the Infinium HumanMethylation450 BeadChip and processed through a common QC pipeline. An Epigenome-wide Association Study was performed on each cohort followed by meta-analysis using inverse normal p-value combination and FDR estimation. Results: Two CpG sites in the gene body of AHRR (cg26703534 and cg05575921) were significant in the meta-analysis (FDR<.05). In addition, 28 other CpG sites, including another 3 AHRR CpGs, associated at p<5x10-5. For each of the AHRR sites, lower methylation was observed in PTSD cases compared to controls; sub-analysis in 1 cohort suggested that these results may be partly driven by smoking. Conclusions: We identified 2 CpG sites and 1 genetic region in AHRR that associated with PTSD in the largest epigenetic sample tested to date. AHRR methylation has been associated with smoking status, and additional analyses are planned to examine differences in trauma across cohorts and the effect of smoking on methylation and PTSD status.
Symposium
Friday, November 6
1:00 p.m. to 2:15 p.m.
Salon D – Public Health Track

Advancing the Field of Trauma through Global Policy Change
(Social, Cult Div-Glob-Pub Health-Social, Lifespan, I, Global)

Elmore, Diane, PhD, MPH
Kudler, Harold, MD
1UCLA/Duke University National Center for Child Traumatic Stress, Washington, District of Columbia, USA
2Department of Veterans Affairs, VISN 6 MIRECC & Duke University, Durham, North Carolina, USA

Great scientific and clinical advancements have been made in the traumatic stress field. These milestones have been reached, in part, due to significant advocacy and policy change at the organizational, local, national, and international levels. The traumatic stress field plays an important role in informing and influencing public policies that effect trauma science and practice. This symposium will include presentations from three leaders in the traumatic stress field from around the world who have effectively utilized scientific and clinical expertise to inform and influence important mental health and trauma related policy changes. Several successful strategies have been identified for effecting policy change across diverse countries/regions and various levels of government. Lessons learned from these global policy case studies have implications for current and future efforts to educate and inform policymakers around the world.

Trauma Policy Development in the U.S.: Recent Advances and Strategies for Effecting Change
(Social, Cult Div-Pub Health-Social-Train/Ed/Dis, Lifespan, I, Industrialized)

Elmore, Diane, PhD, MPH
UCLA/Duke University National Center for Child Traumatic Stress, Washington, District of Columbia, USA

Public awareness of trauma and PTSD continue to grow in the U.S. and around the world. Highly visible traumatic events, including natural disasters, school and community violence, terror attacks, and the ongoing needs of U.S. service members and Veterans, have resulted in greater attention to traumatic stress among policymakers. Increased awareness and interest in traumatic stress are necessary, but not sufficient, to ensure the development and implementation of policies that support the scientific and clinical efforts of the traumatic stress field and those whom we serve. This presentation identifies several case studies of significant mental health and trauma-related policy changes in the U.S. Specifically, these cases will highlight recent policy efforts to address violence against women, improve care for military service members and Veterans, and address the needs of trauma survivors as part of health care reform. Policy change strategies that were utilized to successfully enact these policy advancements will be discussed, including the effective translation and dissemination of scientific and clinical knowledge to policymakers and the importance of interdisciplinary policy and advocacy efforts. Further, mental health and trauma-related policies that warrant continued attention and advocacy from the traumatic stress community will be identified.

Strategic Mental Health Policy, the Gap in Trauma Healing for Sub-Saharan Africa
(Prevent, Comm/Int-Global-Prevent-Pub Health, Lifespan, I, E & S Africa)

Mwiti, Gladys, PhD
Oasis Africa, Nairobi, Kenya

Africa is a continent at the crossroads. Many perceive her as a sleeping economic giant with masses of unexploited resources. However, layers of psychological trauma weigh down the social capital of her young population, creating hopelessness and threatening progress. Trauma contributes to the burden of mental health in Sub-Saharan Africa. However, few nations in the region have strategic mental health policies or systems that recognize the need for trauma prevention and trauma healing. This paper examines the challenge of psychological trauma in Sub-Saharan Africa: the impact of layers of grief and loss from the AIDS pandemic, broken promises of colonialism – historical and neo, wars and ethnic strife, poverty and economic standstills, terrorism and foreign control and the reality of compromised resiliency. The region lacks policies that take into account the impact of trauma on mental health, provide culturally sensitive interventions and protect the rights of the traumatized. Such policies would bring healing hope to millions who struggle, enhance reconciliation and enrich peace initiatives.

How to Respond to the Unexpected – Advising Health Authorities in Developing Strategies for Outreach after Terror
(Social, Social-Terror, Lifespan, I, Industrialized)

Dyb, Grete, MD, PhD
Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Norway

On July 22nd 2011, Norway experienced two sequential terrorist attacks against the government, the civilian population, and an island summer camp for young members of the governing Labor Party. Questions immediately arose on how the health authorities should respond to help the directly affected and their families. Under-treatment and unmet needs among survivors have been documented years after disasters and improved early and proactive outreach strategies and targeted interventions for individuals in need are required. Professionals skilled in evidence informed and evidenced based strategies or reaching these goals have
particular responsibilities and challenges in supporting health authorities in implementing best practice strategies in acute crisis. This presentation identifies specific barriers for developing and implementing national outreach strategies, based on experiences from the 2011 Norway attack and includes results from a longitudinal study evaluating the survivors and their parents experiences with the health outreach. Lessons learned in the aftermath of this terrorist attack will be shared and recommendations will be presented for improving clinical practice and informing public policies in response to future mass trauma events.

Symposium
Friday, November 6
1:00 p.m. to 2:15 p.m.
Salon E – Military Track

Military Personnel Responding to the Ebola Crisis: A 3-Nation Perspective
(Prevent, Global-Nat/Dis-Pub Health, Other, I, Global)

Adler, Amy, PhD1; Zamorski, Mark, MD2
1Walter Reed Army Institute of Research (WRAIR), Silver Spring, Maryland, USA
2Department of National Defence, Ottawa, Ontario, Canada

In an effort to combine research with policy recommendations, the US and UK militaries have conducted studies with units responding to the 2014 Ebola outbreak in West Africa. This symposium will integrate the findings of these studies and will identify ways in which research has been translated into actions for organizational leaders. The symposium will begin with a conceptual review by Canadian researchers on the psychology of health risk and its implications for responding to humanitarian crises in an occupational context. UK researchers will then present a study of service members responding to a short-notice deployment to West Africa, followed by a diary study with UK medical personnel deployed to Sierra Leone. The US will then present results of surveys on psychological health with Army units preparing to deploy, during deployment to Liberia, and during the controlled monitoring phase at post-deployment. Service members on a humanitarian deployment have the potential to participate in meaningful missions; however, these same missions also have the potential to expose them to high-risk situations. Thus, it is important for research to be able to quickly respond and to identify emerging trends, providing immediate feedback to organizational leadership as a way of translating research into action-oriented recommendations and policy.

Conceptual Review on the Psychology of Health Risks and Implications for Military Personnel Responding to a Humanitarian Crisis
(Train/Ed/Dis, Pub Health-Mil/Vets, Adult, I, N/A)

Lee, Jennifer, PhD; Silins, Stacey, PhD
Department of National Defence, Ottawa, Ontario, Canada

The current outbreak of Ebola in West Africa is considered the largest since the virus was first discovered, with the number of cases and deaths exceeding those for all other recorded outbreaks combined (World Health Organization, 2014). In response, military forces from a number of nations, including Canada, the US, and the UK, have been deployed in support missions to help fight the outbreak. Because these involve distinct training and operational requirements and present unique stressors, new concepts or approaches may need to be considered in the development of policies and programs to support the well-being of military members before deployment, and upon their return. For this purpose,
the current presentation will explore psychosocial aspects of
health risks and their application to public health crises.
Following an overview on the origins and evolution of
research on the perception of health risks, the various
domains in which perceptions of health risk may influence
response and recovery during military support missions for
Ebola will be discussed, as well as unique challenges that
may be encountered by personnel while negotiating health
risks within the context of developing countries. Based on
this review, recommendations for future research in this area
will be presented.

The Psychological Impact of Supporting
the Ebola Crisis: The UK Military
Healthcare Workers’ Perspective
(Practice, Cul Div-Illness, Other, I, W & C Africa)

Lamb, Di, PhD; Zamorski, Mark, MD; Adler, Amy, PhD
ICT Centre, Birmingham Research Park, Birmingham,
Birmingham, United Kingdom
Department of National Defence, Ottawa, Ontario, Canada
Walter Reed Army Institute of Research (WRAIR), APO,
Armed Forces - Europe, USA

In contingency, there is a requirement for military medical
personnel to be able to operate in hostile, unpredictable and
challenging environments, which demands a high level of
flexibility and resilience. This qualitative study aimed to
capture the personal experiences of the first tranche of
personnel deployed on such a contingency operation to
West Africa in support of the Ebola outbreak. Twenty
personnel have been recruited to the study and have been
asked to maintain reflective diaries throughout their tour of
duty. The diaries will be collated and analysed by May
15. These personal accounts will enable the effects of
delivering healthcare to patients infected with the virus to be
explored. The biological, psychological, social, welfare and
environmental factors that impact on the delivery of
healthcare in this environment will be determined along with
any challenges that presented and the effect these have on
personnel’s psychological wellbeing. The findings will
facilitate the construction of a theoretical (predictive) model
that can be utilised at a tactical and educational level to
prepare personnel for future contingency operations.

Exploring the Clinical and Psychological
Preparedness of UK Military Medical
Personnel Deploying in Support of the
Ebola Crisis
(Practice, Train/Ed/Dis, Other, I, W & C Africa)

Lamb, Di, PhD; Zamorski, Mark, MD; Adler, Amy, PhD
ICT Centre, Birmingham Research Park, Birmingham,
Birmingham, United Kingdom
Department of National Defence, Ottawa, Ontario, Canada
Walter Reed Army Institute of Research (WRAIR), APO,
Armed Forces - Europe, USA

The aim of this study was to capture the views of medical
and support personnel regarding their role in the Ebola
crisis, and their perceptions of the pre-deployment training.
Participants completed a survey on the first and last day of
their course, which comprised subjective ratings of the
quality of information received about the mission, their role,
their clinical competence to care for patients infected with
the Ebola virus and their confidence to deliver care safely
whilst wearing Personal Protective Equipment (PPE). They
were then asked to qualify these scores by identifying
aspects of the preparation they found particularly positive,
those that generated concerns and ways in which
improvements might be made. The quantitative data showed
a significant improvement in subjective scoring (p<0.001) in
each aspect of their preparedness by the last day of training.
Thematic analysis of qualitative data identified that the most
positive aspect of training related to Unit support in preparing
personnel to deploy at such short notice. On the last day this
was overwhelmingly related to the practical aspects of
training, particularly the PPE donning and doffing drills. An
important concern was the uncertainty of flight details and
tour lengths; improving information quality in relation to its
consistency and timeliness was important in mitigating these
added stressors.

Deploying in Support of the Ebola
Response: Resilience in U.S. Soldiers
(Prevent, Global-Nat/Dis-Pub Health, Other, I, Global)

Adler, Amy, PhD; Anderson, James, PhD; Hansen, David,
MD; Wise, Joseph, MD; Sipos, Maurice, PhD
Walter Reed Army Institute of Research (WRAIR), Silver
Spring, Maryland, USA
US Army, El Paso, Texas, USA

When the US announced it was deploying military units in
response to the 2014 Ebola outbreak in West Africa, Walter
Reed Army Institute of Research (WRAIR) researchers were
asked to provide support in systematically assessing the
mental health and resilience of these troops. After
conducting focus groups and interviews, a survey was
administered to more than 200 soldiers. Overall rates of
mental health problems were low prior to deployment,
although sleep problems were reported by approximately
20%. Top concerns focused on health threats, uncertain
deployment length and communicating with family back
home. Mission-specific leader behaviors (e.g., maintaining
professional standards; emphasizing the importance of
preventive medicine measures) were associated with better
soldier adjustment over and above generally good
leadership. After these results were briefed to unit
leadership, they were used to inform edits to the Army’s
medical threat brief for this deployment. More than 100
surveys were then collected with units in Liberia and again
with units during the controlled monitoring period upon
redeployment. These efforts demonstrate how findings
regarding the mental health and resilience of troops
deployed in support of humanitarian emergencies inform
recommendations for the organization.
Neurofeedback for Complex Trauma: An Examination of Clinical Utility across Development

Hodgdon, Hilary, PhD; van der Kolk, Bessel, MD
Trauma Center at Justice Resource Institute, Brookline, Massachusetts, USA

Neurofeedback (NFB) is utilized widely in clinical settings but the empirical evidence for the efficacy of NFB with trauma-impacted populations is lacking. NFB may ameliorate traumatic sequelae through improving self-regulatory control, including executive function and emotion regulation. Data from four trauma-impacted samples were used to examine QEEG profiles (Hamlin), the impact of NFB as a clinical intervention to reduce mental health symptoms and bolster self-regulation and cognitive performance (Muscario, Akovic, Hodgdon) among both children and adults. Children with abuse and neglect histories demonstrate abnormal brain EEG patterns pointing to disruption in brain areas central in self-regulation and cognitive control. Clinical outcome data from a pilot study of NFB for trauma-impacted children demonstrated reductions in internalizing, externalizing and PTSD symptoms, as well as improvements in parent reported executive function. A study of trauma-impacted adult refugees showed improved cognitive function and reduced PTSD symptoms. Finally, a randomized control trial comparing NFB to waitlist control in adults with PTSD showed significant improvement in PTSD symptoms, affect regulation indices and executive functions.

Impact of Neurofeedback on Executive Function and Trauma Related Symptoms among Children with Histories of Complex Trauma

Hodgdon, Hilary, PhD¹; Spinazzola, Joseph, PhD¹; Musicaro, Regina, BA²; Rogel, Ainat, PhD²; van der Kolk, Bessel, MD³
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Children who experience complex trauma often display profound deficits in self-regulation, disrupting functioning and reducing ability to fully benefit from traditional interventions. This study examined Neurofeedback (NFB) as an adjunctive intervention for 7 children ages 8 to 11 (M= 9.71, SD= 1.31) impacted by complex trauma. After 20-24 sessions of NFB using a standardized protocol, caregivers reported clinically significant reductions in: 1) internalizing and externalizing problems per the CBCL, and 2) PTSD symptoms per the TSCYC. Clinically significant improvement was also observed on several indices of executive function per the BRIEF Parent Report, including emotional control, initiation, and ability to shift set. Repeated measures ANOVA with a Greenhouse-Geisser correction demonstrated statistically significant reductions in externalizing (F(1,6) = 11.28, p<.05) and a trend towards improvement in emotional control (F(1, 6) = 3.61, p<.10) and inhibition (F(1,6)=4.59, p<.10). While findings from this pilot study are preliminary, data collection is ongoing and the full sample of 20 subjects will be available for analyses by August of 2015. Results of this study indicate the NFB shows promise for treatment of trauma-related symptomatology among complexly traumatized children. Enhanced executive function may represent a mechanism through which NFB exerts positive impact.
Evaluation of the Effectiveness of Neurofeedback in Treating PTSD and Associated Cognitive Deficits in Traumatised Adult Refugees
(Clin Res, Clinical Practice-Bio/Int-Refugee-Civil/War, Adult, M, Industrialized)

Askovic, Mirjana, BSc Hons Psychology; Aroche, Jorge, BBSc, MPsyh; Coello, Mariano, BBSc, MPsyh
South Western Sydney Area Health Service, Sydney, New South Wales, Australia

This pilot study aims to evaluate the effectiveness of neurofeedback treatment for traumatised refugees presenting with high levels of post-traumatic stress, using objective and subjective measures under relatively controlled conditions. Subjects consisted of 30 adult clients referred to STARTTS’ Neurofeedback Clinic. The participants were split into two groups. Fifteen participants received 20-30 neurofeedback training sessions while 15 participants continued to receive counselling treatment by their referring counsellor while on the waiting list for neurofeedback. The clients receiving neurofeedback were taught to enhance alpha brainwave activity and/or sensory-motor rhythm activity to promote calm and relaxed states. Post-training changes in EEG/ERP activity, psychological functioning and cognitive performance were assessed and compared to the results collected at baseline. The participants on the waiting list were assessed at baseline and again after 3 months of waiting. The post-training test results compared to the baseline measures indicated positive changes in several domains, while the results of the participants on the waiting list showed minimal or no change. Our findings suggest that neurofeedback can be an appropriate and efficacious treatment modality for PTSD in refugee population that warrants further investigation.

Neurofeedback Improves Executive Functioning in PTSD

van der Kolk, Bessel, MD; Hodgdon, Hilary, PhD; Musicaro, Regina, BA; Gapen, Mark, PhD; Suvak, Michael, PhD; Spinazzola, Joseph, PhD

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4Suffolk University, Boston, Massachusetts, USA

46 subjects with CAPS scores > 55 were randomly assigned to receive neurofeedback (N=24) (P4 T4 Reward at 11-14MHz) for 24 sessions, lasting approximately 30 minutes each, or serve as waitlist controls (N=22). Compared with the controls the NF group had significant decreases in CAPS scores. Executive functioning was measured with Webneuro and the BRIEF. Significant differences between the two groups were found in the dimensions of overall executive functioning, behavioral regulation, capacity to shift sets, working memory, planning and organizing, emotional control, and Global executive composite. The clinical implications of these findings will be discussed.

Panel Presentation
Friday, November 6
1:00 p.m. to 2:15 p.m.
Balcony J-K – Other Interventions Track

Does ‘Complex PTSD’ Need a Phase-Based Treatment Approach or Not?
(Clin Res, CSA-Chronic-Clin Res-Complex, Adult, M, Industrialized)

Resick, Patricia, PhD; Zoellner, Lori, PhD; van Minnen, Agnes, PhD; De Jongh, Ad, PhD, MRCPsych

1Duke University Medical Center, Durham, North Carolina, USA
2University of Washington, Seattle, Washington, USA
3University Nijmegen, Nijmegen, Gelderland, Netherlands
4University of Amsterdam, Amsterdam, Noord-Holland, Netherlands

In this panel presentation, we will discuss the research supporting “The ISTSS Expert Consensus Treatment Guidelines for Complex PTSD in Adults”, which recommends that treatment of adults who are ‘diagnosed’ with Complex PTSD (CPTSD) should be ‘phase-based’ and start with a ‘stabilization phase’. Discussion of the evidence underlying the treatment guidelines will include review of the evidence for: 1) the validity of the construct of CPTSD (Patricia Resick), 2) the assumption that individuals with symptoms of CPTSD suffer from emotion regulation deficits (Lori Zoellner), 3) the claim that having symptoms of CPTSD is a contraindication for evidence-based trauma-focused treatments (Agnes van Minnen), and 4) the general strength of the underlying evidence for these treatment guidelines (Ad de Jongh). The panel presentation will include discussing the pros and cons of retracting the current version of guidelines until sufficient research supports the development of such guidelines, as well as recommendations for practice and future research.
We developed a 16-session individual psychotherapy for complicated grief, a condition that has also been called prolonged grief disorder and persistent complex bereavement disorder. The syndrome can be understood as consisting of symptoms of prolonged acute grief along with complicating thoughts, feelings and behaviors. Complicated grief treatment (CGT) objectives include resolving grief complications and facilitating natural adaptation processes. Each session focuses on both and loss (i.e., helping patients find a way to think about the death that does not evoke intense feelings of anger, guilt, or anxiety) and restoration (i.e., restoring effective functioning by generating enthusiasm and creating plans for the future). Grief monitoring and other weekly activities are an important component of the treatment. CGT (including the first RCT of antidepressant pharmacotherapy in conjunction with CGT) has been studied in three NIMH-funded randomized clinical trials conducted at 5 different clinical research laboratories. We briefly describe each of these studies and report results of each using outcome from independent evaluator ratings and self-report questionnaire scores. We conclude with a summary of core elements of CGT, what we learned from all 3 studies, and general recommendations for a simple intervention following this model.

**Treating Prolonged Grief Disorder: The Role of Exposure**
(Clin Res, Death, Adult, M, Industrialized)

Bryant, Richard, PhD1; Maccallum, Fiona, PhD2; Nickerson, Angela, PhD3
1University of New South Wales, Sydney, New South Wales, Australia
2Teachers College, Columbia University, New York, New York, USA

Although treatments for PGD have focused on exposure-based therapy, there is much debate over whether exposure therapy is optimal for PGD. This trial aimed to determine the relative efficacies of CBT with exposure or CBT without exposure in treating PGD. Eighty patients received 10 weekly 2-hour group therapy sessions that comprised CBT techniques. Patients also received 4 individual sessions, in which they were randomly allocated to receive exposure therapy for memories of the death or supportive counselling. Initial intent-to-treat analyses at follow-up indicated a significant time x treatment condition interaction effect (B = 0.49, SE = 0.16, t(120) = 3.08, p=.003, 95% CI = 0.18-0.81), indicating CBT/Exposure led to greater PGD reductions than CBT. At follow-up, CBT/Exposure led to greater reductions in depression, negative appraisals, and functional impairment than CBT. This presentation will also include 2 year follow-up analyses of patients’ PGD to determine the long-term trajectories of sustained recovery following treatment. These data suggest that integrating emotional processing of memories of the death is an important component to achieve optimal reductions in PGD severity.
Empirical and Theoretical Foundations of Behavioral Activation for Pathological Grief

Papa, Anthony, PhD
University of Nevada, Reno, Nevada, USA

Behavioral activation (BA) for grief provides an alternative approach to conceptualizing and treating pathological grief. Rather than explicitly focusing on schematic change or emotional processing, this approach assumes that unrelenting grief is a product of the loss of reinforcement from enacting important self-defining roles. This perspective suggests that differences in situational constraints related to the loss and/or deficits in behavioral repertoires due to pre-loss learning histories or post-loss events restricting enactment of other self-defining roles and undermine adaptation after loss. This presentation will review outcome data from two pilot trails of BA in bereaved populations, and review research suggesting grief intensity is related to degree that salience of a loss to one’s sense of self contributes to the experience of identity disruption. The implication that a mechanism of change in BA is the reparations of post-loss identity disruption will be discussed, as will the theoretical implications for our understanding of grief resolution.

Efficacy of an Integrative CBT for Prolonged Grief Disorder: A Long-Term Follow-up

Rosner, Rita, PhD(c); Bartl, Helga, PhD; Ploho, Gabriele, PhD; Kotoučová, Michaela, PhD; Hagl, Maria, PhD
1Catholic University Eichstaett-Ingolstadt, Eichstaett, Germany
2Ludwig-Maximilians-University, Munich, Germany

Background: While some intervention trials have demonstrated efficacy in treatment of prolonged grief disorder (PGD), data on long-term treatment effects are scarce. Methods: Fifty-one outpatients with clinically relevant prolonged grief symptoms, who had participated in a randomized controlled trial (RCT), were followed up, on average 1.5 years after integrative cognitive-behavioural therapy for PGD (PG-CBT). Initial assessment procedures were repeated, with PGD symptom severity as main outcome, and general mental health symptoms as secondary outcomes. Since results in immediate and delayed treatment group (former wait list) were similar, follow-up data were pooled. Results: Overall, 80% of the original ITT sample could be reached, that is 89% of the 37 treated participants, but also 8 of 14 participants who had dropped out of the RCT. The considerable short-term treatment success of PG-CBT was stable; pre to follow-up Cohen’s d was large, with 1.24 in the ITT analysis and 2.22 for completers. The pre to post improvement in overall mental health was maintained. Limitations: Since the wait list group of the RCT had been treated after their waiting period as well, no controlled long-term outcomes are available. Conclusions: PG-CBT proved to be effective in the longer run. In comparison to other RCTs on prolonged grief this is the largest sample followed up for this long.
Concurrent Session 7

Symposium
Friday, November 6
2:45 p.m. to 4:00 p.m.
Galerie 2 – Cognitive Processes/Interventions Track

Optimizing Cognitive Processing Therapy Outcomes: Impact of Session Scheduling and Treatment Interruptions
(Practice, Clin Res-Clinical Practice-Cog/Int-Train/Ed/Dis, Adult, M, Industrialized)

Healy, Ellen, PhD1; Galovski, Tara, PhD2
1VA Boston Healthcare System, National Center for PTSD, Boston, Massachusetts, USA
2University of Missouri St. Louis, St. Louis, Missouri, USA

Randomized controlled trials have demonstrated that CPT is an effective treatment for PTSD. These studies have typically scheduled weekly or twice weekly sessions, though little is known as to whether certain session frequencies optimize outcomes. Furthermore, the effect of treatment interruptions on outcomes in CPT is not well understood. In this symposium, three papers will look at the impact of session scheduling and interruptions on treatment outcomes in Cognitive Processing Therapy (CPT). Session timing is explored in a RCT of PE and CPT, demonstrating that session timing is associated with improved treatment outcome. Program evaluation findings from the VA CPT Training Program found significant improvements across all treatment lengths, including cases that took longer than the typically scheduled 12 weeks. Findings from the Australian Veterans services demonstrate that despite perceived barriers to treatment, Veterans who experienced crises during the course of CPT experienced significant improvements. Taken together, consistent sessions may yield most optimal outcomes, but positive outcomes can still be achieved with interrupted or drawn out courses of treatment. We will discuss the treatment planning implications of these findings.

Does Timing Matter? The Impact of Session Frequency and Consistency on Outcome
(Clin Res, Clin Res-Cog/Int, Adult, M, N/A)

Gutner, Cassidy, PhD1; Suvak, Michael, PhD2; Sawyer, Alice, PhD2; Sloan, Denise, PhD2; Resick, Patricia, PhD2
1National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
2Suffolk University, Boston, Massachusetts, USA

Cognitive Processing Therapy (CPT) and Prolonged Exposure (PE) are gold standard treatments for PTSD. Despite being developed and tested for twice weekly sessions, routine care can range from twice a week to monthly depending on a variety of factors. The aim of the current study is to examine whether session frequency and consistency predicts PTSD reductions and whether length between certain assignments impacts outcome in an RCT for CPT and PE. Session frequency was operationalized using average days between session and consistency by standard deviation of the number of days between sessions. Piecewise growth curve modeling revealed that higher average days between sessions was associated with smaller PTSD reductions (t = 4.80, p < .001, d = .83; e.g., more frequent sessions). Higher consistency was also associated with better outcome (t = 2.68, p < .01, d = .48). However, only frequency was associated when they were both included in the model. Follow-up analyses revealed that time between sessions 3 and 4 predicted outcome (shorter time-lapse larger PTSD reductions) for CPT (t = 2.15, p < .05, d = .39), but not PE (t = .09, p > .929, d = .02).

Does Treatment Length Impact Outcomes? Program Evaluation Findings from the VA Cognitive Processing Therapy Training Program
(Practice, Cog/Int-Train/Ed/Dis-Mil/Vets, Adult, M, Industrialized)

Healy, Ellen, PhD1; Chard, Kathleen, PhD2; Cogan, Chelsea, MA3
1VA Boston Healthcare System, National Center for PTSD, Boston, Massachusetts, USA
2Cincinnati VA Medical Center, Cincinnati, Ohio, USA

Cognitive Processing Therapy (CPT) is an evidence-based trauma-focused treatment typically 12 sessions held weekly or twice weekly. In clinical practice, this intended session frequency is sometimes achieved, and sometimes delays in scheduling result in less frequent sessions, and subsequently length of time in treatment can vary considerably. We want to explore whether timing variability matters in terms of outcome. As part of our program evaluation, the CPT Training program collects treatment outcomes including weekly Posttraumatic Stress Checklist (PCL) scores of Veterans receiving CPT from clinicians in case consultation. 1504 Veterans who received CPT were included in the preliminary analyses. Including drop-outs, number of CPT sessions completed ranged from 1 to 23 (M = 9.99, SD = 3.85) and length of treatment ranged from 3 to 398 days (M = 87.8, SD = 47.4). Preliminary analyses utilized repeated measures ANOVA to compare pre-post PCL scores across groups of varying treatment length (measured in days). Across all groups, there was significant improvement in PCL scores from pre to post, though initial analyses found no significant differences between groups, indicating similar outcomes irrespective of how long treatment took. Additional multi-level analyses will be...
conducted to further explore. Clinical implications will be discussed.

Do Experience of Clinical Crises During CPT Treatment Impact on Client Outcomes – Implications for Promoting the Use of CPT among Therapists
(Clin Res, Clinical Practice-Commun-Mil/Vets, Adult, M, Industrialized)

Kartal, Dzenana, PhD Candidate; Couineau, Anne-Laure, MA; Lloyd, Delyth, MA; Nixon, Reginald, PhD; Forbes, David, PhD

1Australian Centre for Posttraumatic Mental Health, University of Melbourne, Carlton, Victoria, Australia
2Flinders University, School of Psychology, Adelaide, South Australia, Australia

Reducing the gap between evidence-based treatments and clinical practice in community based psychological care remains a challenge in the provision of mental health services. Complex presentations associated with PTSD are often presented as barriers to using best practice. This paper explores the impact of client’s complex clinical issues and acute crises on the delivery of Cognitive Processing Therapy (CPT). The data was collected during an Australia-wide CPT implementation project across a veterans’ mental health service. It was found that acute external crises or recurring comorbid issues that delayed the delivery of CPT did not have a significant effect on treatment completion rates or the number of CPT sessions provided. Statistically significant and clinically meaningful improvements in self-reported PTSD were reported by clients that experienced a crisis (g=1.12) and clients without a crisis (g=1.57). These findings strongly contradicted the attitudes of therapists measured at pre- and post-implementation indicating that the clients’ co-occurring clinical issues and crises were by far their most prominent barrier to offering treatment – endorsed by 72% of therapists. These findings emphasise the importance of addressing the discrepancy between therapist’s beliefs and their actual impact on clients’ ability to engage and benefit from evidence-based treatments such as CPT.

Symposium
Friday, November 6
2:45 p.m. to 4:00 p.m.
Galerie 3 – Affective Processes/Interventions Track

Progress in Understanding Basic Cognitive Mechanisms after Trauma and Loss to Enhance Treatment
(Clin Res, Affect/Int-Clin Res-Cog/Int-Theory, Adult, I, N/A)

Ehlers, Anke, PhD
Oxford University, Oxford, United Kingdom

Presenters will discuss new experimental research examining cognitive mechanisms that might increase the efficacy of treatments in the wake of trauma (e.g. PTSD and DID) and loss (e.g. Complicated Grief). Although the past several decades have witnessed substantial growth in the development and successful implementation of cognitive and behavioral interventions for trauma and loss-related pathology, many individuals that receive treatment remain symptomatic. Thus, there is an urgent need to better understand the cognitive mechanism underlying these disorders in order to develop strategies that can increase the efficacy of current treatments. At the core of CBT treatments for disorders such as PTSD, DID, and Complicated Grief is the belief that individuals possess maladaptive cognitive biases, which in turn, lead to the maintenance of symptoms. This symposium will focus on several lines of new experimental research that are shedding light on the role of maladaptive cognitive biases in the pathogenesis of these disorders and novel methods for modifying cognitive biases in treatment.

Modifying Autobiographical Memory Bias for Negative and Traumatic Memories Using Cognitive Bias Modification (CBM) Training
(Res Meth, Anx-Cog/Int, Adult, I, N/A)

Krans, Julie, PhD
Vermueelen, Mirjam, MSc
University of Leuven, Leuven, Vlaams-Brabant, Belgium

Autobiographical memory biases has been proposed as a maintaining factor in PTSD. Yet, research on modifying autobiographical memory bias is scarce. This presentation focuses on selectivity bias and centrality bias in the context of PTSD. (1) Selectivity bias was established and replicated in individuals suffering from PTSD using the Autobiographical Memory Task (AMT). To test whether this selectivity bias is malleable, an optimism training using a Cognitive Bias Modification (CBM) procedure was compared to a pessimism CBM training in healthy participants. Results from the experiment will be presented. (2) Correlational studies have shown that individuals with PTSD place their traumatic experience more central in the life-story than individuals without PTSD. However, it is yet unknown whether this ‘centrality bias’ is a causal factor in the development of PTSD
Delayed Reward Discounting in Prolonged Grief: Examining Biases in Decision Making Following Bereavement
(Clin Res, Cog/Int-Death, Adult, I, Industrialized)

Maccallum, Fiona, PhD; Bonanno, George, PhD
Teachers College, Columbia University, New York, New York, USA

Prolonged Grief (PG) is a potential outcome of bereavement that is associated with significant chronic impairment. In recent years we have seen an increase in our knowledge of the autobiographical memory biases that may underlie the syndrome. The extent to which PG is also associated with biases in basic decision making has yet to be examined. In this study we investigated delayed reward discounting in PG. The tendency for individuals to discount the subjective value of future rewards is a well-established phenomenon, and individual differences in the rate at which one devalues the future have been associated with a range of significant economic and health outcomes. In this study 51 bereaved participants with and without PG made a series of choices between a small amount of money available immediately or a larger amount available after a specified delay. PG was associated with greater discounting of both a small and a relatively larger delayed reward. Results are discussed with reference to potential underlying mechanisms. Results are consistent with findings suggesting that individuals with PG have difficulties orienting towards the future, help shed light on decision making processes that may contribute to ongoing dysfunction in PG, and provide potential avenues for modifying such biases.

Self-Defining Memories and Future Goals in Dissociative Identity Disorder and Complex PTSD
(Clin Res, CSA-Chronic-Cog/Int-Complex, Adult, I, N/A)

Huntjens, Rafaëlle, PhD
University of Groningen, Groningen, Netherlands

The capacity to integrate past personal events in a life story is essential for the formation of a coherent identity and allows for setting personal goals for the future. Specifically challenging in this respect is the integration of traumatic life experiences. In this study, we investigated self-defining memories (i.e., exemplar personal recollections) and future goals in a group of patients with Dissociative Identity Disorder (DID) and patients with complex PTSD. In an avoidant identity state, DID patients were hypothesized to retrieve neutral, non-trauma-related memories and avoidant goals compared to a trauma identity state. Control groups consisted of patients with complex PTSD, DID simulators, and healthy controls. In trauma identity states, the patients retrieved emotionally negative, trauma-related memories (e.g., memories of actual traumatic incidents), while in avoidant identity states, they retrieved more positive trauma-related memories (e.g., memories of learning to cope with the consequences of trauma). DID patients scored comparably in both states on number of avoidance goals, and higher compared to complex PTSD patients. These differences in retrieval of self-defining memories and future goals might contribute to the formation or maintenance of a different self-construct in different identities in DID, hindering the formation of a stable self-system.

Enhancing Self-Efficacy Improves Episodic Future Thinking and Social-Decision Making in Posttraumatic Stress Disorder
(Clin Res, Affect/Cog/Int-Mil/Ther-Theory, Adult, I, N/A)

Brown, Adam, PhD1; Kouri, Nicole, BA1; Joscelyne, Amy, PhD2; Bryant, Richard, PhD1; Marmar, Charles, MD1
1New York University School of Medicine, New York, New York, USA
2University of New South Wales, Sydney, New South Wales, Australia

Posttraumatic Stress Disorder (PTSD) is associated with maladaptive changes in self-identity such as low levels of perceived self-efficacy. This study examined whether enhancing perceptions of self-efficacy in combat veterans with and without PTSD may promote cognitive strategies associated with positive mental health outcomes. Fifty-nine OEF/OIF veterans were randomized to either a high self-efficacy (HSE) induction in which they were asked to recall three autobiographical memories demonstrating self-efficacy or a control condition in which they recalled any three autobiographical events prior to completing a future thinking and social problem solving task. Future events generated by veterans in the HSE condition contained more positive and self-efficacious statements and performed better on two indices of social-problem solving, whereas future thinking narratives in the control condition contained more negative statements. Increasing perceptions of self-efficacy may aid in promoting future thinking and problem solving in ways that are relevant to overcoming trauma and adversity.
Views of Trauma around the World Paper Session
Friday, November 6
2:45 p.m. to 4:00 p.m.
Galerie 4 – Public Health Track

Understanding Helpers with their Burnout Profiles: Focusing on the Sewol Ferry Disaster
(Self-Care, Acc/Inj-Self-Care, Adult, M, Industrialized)

Sim, Ki-Sun, Doctoral Student; Min, Ji-Won, Doctoral Student; Joo, Hyesun, PhD; Ahn, Hyunnie, PhD
Ewha Womans University, Seoul, South Korea

This study is aimed to classify people who provided psychosocial support after the Sewol ferry disaster, profiling with their burnout level and to examine how those patterns are associated with secondary trauma responses. Previous studies said that helpers could experience feelings of disconnection from others and be exhausted after working with trauma survivors. However, there is also evidence that the sense of accomplishment one obtains from their service could be a protective factor. 70 helpers who participated in support activities after the disaster were administered to Maslach Burnout Inventory (Maslach, 1982), Impact of Event Scale (Horowitz et al., 1979), World Assumption Scale (Elkli et al., 2007). First, two-step cluster analysis showed that a three-cluster solution is valid: (a) Cluster 1 (low level of emotional exhaustion, depersonalization, and high level of personal accomplishment), (b) Cluster 2 (low level in all of subscales), and (c) Cluster 3 (high level in all of subscales). Results from ANOVA indicated that people in Cluster 3 experienced post-trauma symptom higher than the other clusters. Also, participants in Cluster 1 showed more positive worldviews than those in Cluster 2. These findings suggest that interventions that enhance emotional and cognitive self-care skills of post-disaster workers could reduce the level of their secondary traumatization.

Emergency Preparedness and Role Clarity among Rescue Workers during the Terror Attacks in Norway July 22, 2011
(Clin Res, Acc/Inj-Acute-Health-Terror, Other, M, Industrialized)

Botha Pedersen, May Janne, RN1; Gjerland, Astrid, RN2; Rishovd Rund, Bjorn, Prof.3; Ekeberg, Olvind, Prof4; Skogstad, Laila, PhD, RN6
1Ringerike Hospital, Vestre Viken Hospital Trust, Drammen, Norway
2Baerum Hospital, Vestre Viken Hospital Trust, Drammen, Norway
3University of Oslo and Vestre Viken Hospital Trust, Baerum Hospital, Vestre Viken Hospital Trust, Ringerike Hospital, Vestre Viken Hospital Trust, Drammen, Norway
4University of Oslo, Faculty of Medicine, Oslo, Norway
5Oslo University Hospital, Oslo, Norway

Background: On July 22, 2011, Norway was struck by two terror attacks. Rescuers worked under demanding conditions.

Methods: The aims were to study the level of previous training, work experience, and posttraumatic stress symptoms. In addition, examine the relationship between preparedness and a) role clarity during the rescue operations and b) preparedness for future operations. In this cross-sectional study, healthcare providers (n = 859), police officers (n = 252), and firefighters (n = 102) returned a questionnaire approximately ten months after the events. Results: Over two-thirds of the participants reported previous work experience from similar tasks. Symptoms at posttraumatic stress disorder level (PTSD) were reported by 0.4-2.0 %. Being female, more years of work experience, training, and experience of an event with > 5 fatalities were associated with role clarity, together with perceiving the rescue work as a success. Independent predictors of being prepared for future operations were activation and perceiving the rescue work as a success. Conclusion: The rescue workers were exposed to high levels of death and destruction, but the prevalence of possible PTSD was low. Higher perceived role clarity was associated with previous training and work experience. Perceiving the work as successful predicted both higher role clarity and preparedness for future operations.

(Social, Journalism-Pub Health-Train/Ed/Dis, N/A, M, N/A)

Purtle, Jonathan, DrPH; Malik, Mashal, MPH candidate
Drexel University, Philadelphia, Pennsylvania, USA

Maximizing the societal impact of research about posttraumatic stress disorder (PTSD) requires translating clinical and epidemiologic evidence into public policy. Newspapers influence policy making processes and an understanding of portrayals of PTSD in the news can inform research dissemination strategies. Little is known, however, about how PTSD has been portrayed in the news. This study’s objectives were to describe how PTSD has been portrayed in the New York Times (NYT) and how these portrayals have changed over time. We searched the ProQuest NYT database to identify articles that mentioned “PTSD” and variants between 1980-2015 (N=978). We conducted a content analysis in which two coders developed a coding framework and classified each article according to a priori categories (e.g., populations identified as being affected by PTSD, stressors implicated as causing PTSD) and emergent categories (e.g., race, PTSD as criminal defense). Descriptive and inferential statistics were produced. PTSD has primarily been portrayed as a military problem in the NYT, but discourse about the disorder has expanded to a broader range of populations over time. Researchers were often quoted within in the context of solutions to address PTSD. The current sociopolitical climate may be ripe for researchers to advocate for evidence-supported policies that address PTSD among civilian populations.
Trauma treatment effectiveness is critical in low and middle income countries where the burden of mental disorders is large, comorbidity is common, and there is a dearth of mental health professionals. To achieve scale up, innovative approaches that move beyond a reliance both on professionals and on singularly-focused disorders is critical. Transdiagnostic interventions go back to the basics - combining elements from many existing evidence-based interventions and have shown promising results in the U.S. (Weisz et al., 2012; Farchione et al., 2012). CETA (Murray, Dorse et al., 2013) is a transdiagnostic intervention developed specifically for lower-resource settings where para-professionals are providers. We will report on the design, implementation and results of two completed RCTs of CETA which both showed high effect sizes: Thai Burma border with Burmese refugees (N = 347; ES: 2.40 PTS, 1.82 depression, 1.60 anxiety), and in Southern Iraq (N=149; ES: 2.40 PTS, 1.16 depression, 0.79 anxiety). Clinical outcomes will be reviewed as the "litmus test" for effectiveness of implementation strategies [use of lay counselors; modular approach] for trauma populations. We will also present analytic breakdown on lay counselor decision making for CETA module selection and dose for a trauma population, as well as qualitative perspectives from providers and trauma-affected consumers.
behavior and subsequently providing probabilistic inferences regarding the psychological state of a person when they interact with a live or virtual human interviewer. The SimSensei Virtual Human (VH) interviewing system provides participants with the opportunity to engage in a private conversational interview with a VH character who asks an interviewee open ended questions that are responded to with natural language. During the course of the interview, cameras and a microphone capture the user’s facial/body and vocal communication “signals” for quantification and interpretation. We will present SimSensei interview data from a National Guard unit (n=25) obtained prior to and immediately following a combat deployment to Afghanistan. Initial analyses suggest differences in pre to post interviews were found on automatic measures of facial expression related to displays of “joy” and “fear”. Interviewees were also more likely to endorse the presence of adverse psychological symptoms to the virtual human (Ellie) compared to their responses on the PDHA questionnaire.

Posttraumatic and Depressive Symptom Change during D-Cycloserine (DCS) Enhanced Virtual Reality Exposure Therapy
(Tech, Clin Res-Depr-Terror, Adult, M, Industrialized)

Peskin, Melissa, PhD1; Wyka, Katarzyna, PhD2; Cukor, Judith, PhD1; Altemus, Margaret, MD2; Lee, Francis, MD, PhD2; Difede, JoAnn, PhD1
1New York Presbyterian Hospital/Weill Medical College of Cornell University, New York, New York, USA
2Weill Cornell Medical College, New York, New York, USA

Although previous research suggests that Prolonged Exposure (PE) therapy primarily decreases posttraumatic symptoms, which in turn leads to decreased depressive symptoms, the relationship between posttraumatic and depressive symptoms has not been examined during virtual reality exposure (VRE) therapy. The aim of the present study was to determine whether the relationship between posttraumatic and depressive symptoms during VRE is similar to that observed during PE. Male and female participants (N = 25) with chronic World Trade Center-related PTSD following the September 11, 2001 terrorist attacks participated in a randomized controlled trial of D-Cycloserine (DCS) versus placebo augmented VRE therapy. Multilevel mediation analyses examining the relationship between posttraumatic and depressive symptoms indicated that changes in posttraumatic symptoms mediated 50.2% and 37.1% of changes in depressive symptoms in the DCS-enhanced and placebo groups, respectively. In contrast, changes in depressive symptoms mediated only 17.9% and 10.9% of changes in posttraumatic symptoms in the DCS and placebo groups, respectively. Findings suggest that as in PE, VRE primarily decreases posttraumatic symptoms, which in turn leads to decreased depressive symptoms.

Validation of a Virtual Environment for Sexual Assault Victims
(Clin Res, Rape-Tech, Adult, M, N/A)

Loranger, Claudie, PhDC; Bouchard, Stephane, PhD

Univèsité du Québec en Outaouais, Gatineau, Quebec, Canada

The use of virtual reality (VR) in therapy has shown promising results in the treatment of some traumas, but sexual assault has been understudied. One important question to address is the clinical relevance and safety to have the software allowing patients to be progressively exposed to the entire rape scenario (a step eventually reached in imaginal exposure). Thirty women were randomly assigned in a counter-balanced order to immersions in 2 virtual environments: (a) a control scenario (Ctrl) where the encounter with the aggressor does not lead to rape, and (b) the experimental scenario where the participant is sexually assaulted (Assault). The general scenario presents a bar and the immersions were conducted in a 6-wall fully immersive CAVE-like system. Questionnaires and psychophysiological measures were recorded before, during and after the immersions. No adverse events were reported during or after the immersions. Repeated measures ANOVAs revealed a significant Time effect and significantly more anxiety and negative affect in the Assault scenario than in the Ctrl condition. Physiological data (heart rate and skin conductance) also show interesting results. Given the safety of the virtual scenario and its potential to induce reactions required for exposure, it should be further tested in a clinical trial documenting its usefulness in addressing “stuck-points” in therapy.

Virtual Reality Applications to Treat and Prevent PTSD
(Clin Res, Assess Dx-Media-Res Meth-Tech, Adult, M, Industrialized)

Rizzo, Skip, PhD1; Buckwalter, Galen, PhD1; John, Bruce, MA1; Roy, Michael, MD, MPH1; Difede, JoAnn, PhD5; Rothbaum, Barbara, PhD, ABPP4; Reist, Chris, MD1; Kwok, David, PhD1; Leedes, Andrew, MS1; Hartholt, Arno, MS1
1University of Southern California, Los Angeles, California, USA
2Uniformed Services University, Bethesda, Maryland, USA
3New York Presbyterian Hospital/Weill Medical College of Cornell University, New York, New York, USA
4Emory University School of Medicine, Atlanta, Georgia, USA
5Long Beach VA Medical Center, Long Beach, California, USA

Virtual Reality (VR) delivered prolonged exposure therapy for PTSD is currently being used to treat combat and terrorist attack related PTSD with initial reports of positive outcomes (Difede et al., 2007, 2013; Rizzo et al., 2013; Reger et al., 2011; Rothbaum, 2001, 2014) and large randomized controlled trials are currently in progress. This presentation will very briefly describe that work and the evolution of the system to expand the VR treatment content for combat medics/corpsmen and for persons with PTSD due to military sexual trauma. This R&D effort has now focused on translating the digital content created for PTSD treatment into a series of interactive and immersive VR training episodes for teaching resilience and combat relevant stress management skills prior to a deployment. Blood biomarker and psychophysiological data captured during use of the system prior to a combat deployment to Afghanistan by a National Guard unit (n=25) is currently being analyzed to determine its value for predicting mental health status as assessed at post deployment when the unit returned home in December of 2014. Initial analysis of data captured during
participant interaction within emotionally stressful VR scenarios suggest a complex relationship between allostatic load, psychophysiological reactivity and their relationship with the report of PTSD symptoms.

Panel Presentation
Friday, November 6
2:45 p.m. to 4:00 p.m.
Galerie 6 – Child Trauma Track

Screening Children for Risk of Posttraumatic Stress after Acute Trauma: What is the State of the Science and Where Do We Go from Here?
(Prevent, Acute-Assess Dx-Bio Med, Child/Adol, M, Global)

Kassam-Adams, Nancy, PhD1; Kenardy, Justin, PhD2; Landolt, Markus, PhD3; Nugent, Nicole, PhD4; La Greca, Annette, PhD5
1University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
2The University of Queensland, Herston, Queensland, Australia
3University of Zurich, Zurich, Switzerland
4Brown Medical School, Providence, Rhode Island, USA
5University of Miami, Coral Gables, Florida, USA

Many millions of children worldwide are exposed to potentially traumatic acute events. Recommended secondary prevention frameworks (watchful waiting, screen and treat, stepped care models) require empirically sound predictive screening tools to identify children at higher risk for persistent posttraumatic stress (PTS) symptoms and other psychological sequelae. Despite a growing empirical literature regarding the etiology of child PTS after acute trauma, it is unclear whether early PTS reactions, biological / physiological markers, and/or other risk factors will be the optimal approach for risk screening. For wide reach and impact, we need screening tools that are practical for use across settings and for a range of types of acute child trauma (e.g., accident, injury, violence, disaster). Several promising screening tools (e.g., STEPP, CTSQ, PEDS-ES) have been created and tested, mostly in the context of emergency or acute care medical settings. But there are few replication studies of these tools, and no single screening method has emerged as the gold standard. This panel will address the state of evidence and practice in this area internationally, identify key gaps in our current knowledge of psychological, biological, and social risk markers, and initiate a broader discussion of next steps for the trauma stress field to move toward effective screening tools for children.

Symposium
Friday, November 6
2:45 p.m. to 4:00 p.m.
Acadia – Other Interventions Track

Evidence-Based Psychotherapies for PTSD in Routine Care: Effects on Patient Outcomes
(Clin Res, Commun-Train/Ed/Dis, Adult, M, N/A)

Cook, Joan, PhD1; Ruzek, Josef, PhD2
1Yale School of Medicine, West Haven, Connecticut, USA
2VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

Little is known about the use and effectiveness of evidence-based psychotherapies (EBPs) for posttraumatic stress disorders (PTSD) in routine care. This symposium will examine the use of several EBPs for PTSD, namely Prolonged Exposure (PE), Cognitive Processing Therapy (CPT) and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) across several health care systems in two countries and the impact of EBP use on patient outcomes. The first study examined the use of PE and CPT in 38 U.S. Department of Veterans Affairs PTSD residential treatment programs as well as the impact of use on thousands of veterans’ PTSD and substance use. The second investigation took place in the VA Canada Operational Stress Injury National Network and affiliated clinics, and examined the use of CPT as delivered to a sample of 188 patients by clinicians who had been randomized into one of three training and consultation strategies. The third study examined relationships among the training strategies used as part of a learning collaborative focused on TF-CBT and use of and perceived competence in delivering TF-CBT, as well as pre to post PTSD and depression symptoms. Implications for use of EBPs in routine care will be discussed in terms of patient outcomes, education, research, and systems functioning.

Clinical Outcomes after Training and Consultation in Cognitive Processing Therapy for Clinicians in Routine Care Settings
(Commun, Chronic-Clin Res-Mil/Vets, Adult, M, Industrialized)

Wiltse Stirman, Shannon, PhD1; Shields, Norman, PhD2; Lane, Jeanine, Doctoral Student3; Landy, Meredith, Doctoral Student4; Suvak, Michael, PhD5; Masina, Tasoula5; Monson, Candice, PhD6; Opsypch6
1Boston VA Healthcare System, Boston, Massachusetts, USA
2Veteran Affairs Canada, Toronto, Quebec, Canada
3Ryerson University, Toronto, Ontario, Canada
4Ryerson University, Department of Psychology, Toronto, Ontario, Canada

Little is known about the use and effectiveness of evidence-based psychotherapies (EBPs) for posttraumatic stress disorders (PTSD) in routine care. This symposium will examine the use of several EBPs for PTSD, namely Prolonged Exposure (PE), Cognitive Processing Therapy (CPT) and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) across several health care systems in two countries and the impact of EBP use on patient outcomes. The first study examined the use of PE and CPT in 38 U.S. Department of Veterans Affairs PTSD residential treatment programs as well as the impact of use on thousands of veterans’ PTSD and substance use. The second investigation took place in the VA Canada Operational Stress Injury National Network and affiliated clinics, and examined the use of CPT as delivered to a sample of 188 patients by clinicians who had been randomized into one of three training and consultation strategies. The third study examined relationships among the training strategies used as part of a learning collaborative focused on TF-CBT and use of and perceived competence in delivering TF-CBT, as well as pre to post PTSD and depression symptoms. Implications for use of EBPs in routine care will be discussed in terms of patient outcomes, education, research, and systems functioning.
Despite the effectiveness of interventions such as Cognitive Processing Therapy (Resick et al., 2008), only a minority of eligible patients receive them in routine care settings (Shiner et al., 2013). Thus, little is known about their effectiveness in these settings. This study investigated the impact of post-workshop follow-up conditions on clinical outcomes. Clinicians from VA Canada’s Operational Stress Injury National Network and from community settings (n = 134) were randomized into one of three conditions. Two consultation strategies (with and without review of session recordings and work samples) were compared to a strategy that did not include post-workshop consultation. Clinical change for their clients (n = 188) was measured using the PTSD Checklist (PCL-5; Weathers et al., 2013) and the Outcomes Questionnaire (OQ-45; Lambert & Finch, 1999). While a large pre-to-post treatment effect was demonstrated for patients in all conditions, the consultation strategy that did not include work sample review resulted in significantly greater PTSD symptom change as measured by the PTSD Checklist. Therapist and Patient-level predictors of symptom change, secondary outcomes from the OQ-45, and clinician fidelity data will be presented. The implications of these findings will be discussed in the context of system-level efforts to deliver evidence-based psychotherapies.

Implementation of Two Evidence-Based Psychotherapies for PTSD in Department of Veterans Affairs Residential Treatment Programs: Patient-Level Outcomes

This presentation will report the effects of two evidence-based psychotherapies for PTSD, Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT), in a national sample of 38 US VA PTSD residential treatment programs with over 200 providers and nearly 2,000 veterans. Of the programs, 15 used CPT with select veterans only, 8 each made CPT the core of their program or provided CPT to veterans in a specific track, 2 used CPT elements, and 5 had not adopted the treatment. Similarly, 15 used PE with select veterans only, 8 had adopted PE elements, 5 provided PE to veterans in a specific track, 9 had not adopted, and 1 had de-adopted PE. Veterans were assessed at admission, discharge, and at 4 months follow-up using the short form of the Mississippi Scale for Combat-Related PTSD, a short DSM-based PTSD checklist, and the alcohol and drug scales of the Addiction Severity Index; satisfaction was assessed at discharge only. Using data from 2011, we found that implementation of PE and CPT was unrelated to outcome at follow-up. Further analyses of outcomes at discharge as well as data from more recent years using the PTSD Checklist as a measure of PTSD severity are ongoing. Discussion will focus on possible reasons for the lack of relationship between implementation and outcome and will suggest both research and ways to enhance the impact of implementation.

Moving beyond Train and Hope: Relationships between Learning Collaborative (LC) Training Strategies and Treatment Outcomes for Delivery of TF-CBT in Community-Based Mental Health

(Train/Ed/Dis, CPA-CSA-Clin Res-Clinical Practice, Prof, M, N/A)

Hanson, Rochelle, PhD; Moreland, Angela, PhD; Saunders, Benjamin, PhD

Medical University of South Carolina, Charleston, South Carolina, USA

LCs are widely used to train community-based mental health clinicians, yet research is just emerging to examine the effectiveness of these efforts. We examined relations among training strategies used as part of an LC focused on Trauma-focused Cognitive Behavioral Therapy (TF-CBT) and use of/perceived competence in delivering TF-CBT and pre-post treatment outcomes. Four LCs, conducted as part of a SAMHSA-funded grant project, involved a total of 150 clinicians; 57 clinicians (24 different organizations) completed 182 TF-CBT training cases (86% female; M age=12.59, range 4-18). Regarding LC training requirements (attendance at learning sessions, # consultation calls, % weekly metrics to assess use of/perceived competence in delivering TF-CBT, 2 completed TF-CBT cases), 100% of clinicians met the Learning Session requirement, 95% met the call requirement (M calls completed=12.23); and 88% met the case completion requirement (M training cases completed=2.40). Clinicians completed 69% of weekly clinical metrics, and 88% met all training requirements. Completion of LC training requirements was significantly related to self-reported use of specific TF-CBT components, and there were significant pre to post treatment declines in PTSD (t = 14.64, p < .001) and depression (t = 15.12, p < .001) for completed TF-CBT training cases. Implications for research and training will be discussed.
Links between Diurnal Cortisol and Daily Victimization and Perpetration among Adolescents
(Bio Med, Aggress-Dev/Int, Child/Adol, I, Industrialized)

Arbel, Reout, PhD; Han, Sohyun, PhD Student; Margolin, Gayla, PhD
University of Southern California, Los Angeles, California, USA

Experiences of victimization and perpetration with friends can be traumatic for adolescents and may lead to changes in the hypothalamic-pituitary-adrenal (HPA) axis, which responds to interpersonal stress (Gunnar et al., 2009). However, little is known about the effects of daily victimization and perpetration on diurnal cortisol patterns among adolescents. This study examined the day-to-day covariation between victimization and perpetration experiences with friends and cortisol awakening responses among adolescents with high and low peer attachment. 99 adolescents who participated in a longitudinal study (46 female, mean age = 18.18) provided five saliva samples per day and reported victimization and perpetration with friends across three consecutive week days. Past year peer attachment was assessed in the lab. We used multilevel path modeling with cross-lagged variables to test temporal associations between constructs. Results indicated that greater experiences of victimization and perpetration on one day predicted attenuated morning cortisol increase the following day among adolescents with low peer attachment (β=-.19, p<.01), and heightened morning cortisol increase among those with high peer attachment (β=1.47, p<.001). Results suggest that daily experiences of victimization and perpetration with friends get “under the skin” and affect diurnal patterns of the HPA axis.

Serum Brain-Derived Neurotrophic Factor and Dyslipidemia Predict Insulin Resistance in Young Male Combat Veterans with Posttraumatic Stress Disorder
(Bio Med, Anx-Chronic-Illness-Prevent, Adult, M, Industrialized)

Blessing, Esther, PhD, MD; Mellon, Synthia, PhD, MPH; Reus, Victor, MD; Bierer, Linda, MD; Yehuda, Rachel, PhD; Marmar, Charles, MD
1New York University Langone Medical Center, New York, New York, USA
2University of San Francisco, CA (USFCA), San Francisco, California, USA
3University of California, San Francisco, San Francisco, California, USA
4J. J. Peters Veterans Affairs Medical Center; Mount Sinai School of Medicine, Bronx, New York, USA

Insights into biological mechanisms underlying increased risk for Type 2 diabetes (T2D) in posttraumatic stress disorder (PTSD) may lead to T2D prevention. We determined, in young male combat veterans, 1) Whether PTSD diagnosis predicted increased insulin resistance (IR), and 2) Whether candidate biological factors predicted increased IR. Methods: Fasting serum glucose, insulin, triglycerides, cholesterol, HDL, LDL, IL-6, TNFα, CRP, waist circumference and heart rate were measured in 93 subjects (mean age 33.8 years), including 45 cases with PTSD (mean CAPS current 67.5), and 48 psychiatrically healthy combat-exposed controls (mean CAPS current 2.8), the majority (90/93) of whom did not have T2D. Homeostatic model assessment (HOMA-IR) quantified IR. Principal component analysis (PCA) and multiple regression determined relationships of biological variables with HOMA-IR. Results: HOMA-IR was significantly higher in cases (mean 4.74±4.96) compared to controls, p=0.02. HOMA-IR showed high loading (0.86) with one component that also featured BDNF (0.77), waist circumference (0.74), triglycerides (0.62), HDL (-0.53) and heart rate (0.3). Together, these variables explained 61% of HOMA-IR variance across all subjects using multiple regression, p < 0.001. Conclusions: PTSD is associated with increased IR, predicted by increased serum BDNF, central adiposity, and dyslipidemia.

The Role of Trauma in Quality of Life, Inflammation, and Survival
(Bio Med, Bio Med-Illness-QoL-Grief, Adult, M, Industrialized)

Steel, Jennifer, PhD; Geller, David, MD; Marsh, Wallis, MD; Tsung, Allen, MD
1University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, USA
2University of Pittsburgh, Pittsburgh, Pennsylvania, USA

Objectives: The aims of the study were to assess the prevalence of traumatic life events in advanced cancer patients and examine the association between past traumatic events and quality of life, biomarkers of inflammation, and survival. Methods: Advanced cancer patients were administered a battery of questionnaires that assessed trauma, depression, pain, and fatigue. Blood was collected and serum levels of pro-inflammatory cytokines were assessed. Demographic and disease specific information was collected from the patients’ medical record. Results: Of the 414 patients, 66% of patient reported a traumatic event during childhood and 93% reported a traumatic event as an adult. Being a victim of violence before the age of 17 years was associated with elevations in TNFα (p=0.006). Together, these variables explained 51% of HOMA-IR variance across all subjects using multiple regression, p < 0.001. Conclusions: PTSD is associated with increased IR, predicted by increased serum BDNF, central adiposity, and dyslipidemia.
The DoD, VA, Institute of Medicine, and World Health Organization have all called for a new paradigm of trauma-informed health care which not only collocates and integrates mental health practitioners in medical settings, but also encourages increased competency of the entire medical team in addressing underlying trauma. Trauma is a major risk factor for the most common causes of adult illness, death and disability. Prior research has linked PTSD with chronic diseases such as obesity, heart disease, HIV, and chronic pain. Worldwide, veterans and civilians with trauma histories and PTSD often reside in poor, under-resourced communities that lack specialty mental health services, and where services exist, they are often stigmatized. Most individuals with underlying trauma and PTSD present to medical settings with physical health complaints, which affords an opportunity to address underlying trauma. Trauma-informed health care can potentially help to reverse chronic stress, high-risk behaviors, and PTSD-related comorbidities that fuel chronic disease. Panelists will explain underlying mechanisms for the link between trauma and chronic disease, highlight gaps in the treatment of chronic disease, identify successful models of trauma-informed medical care, and describe ongoing advocacy efforts to incorporate trauma-informed care into national and global health care policy.

The DoD, VA, Institute of Medicine, and World Health Organization have all called for a new paradigm of trauma-informed health care which not only collocates and integrates mental health practitioners in medical settings, but also encourages increased competency of the entire medical team in addressing underlying trauma. Trauma is a major risk factor for the most common causes of adult illness, death and disability. Prior research has linked PTSD with chronic diseases such as obesity, heart disease, HIV, and chronic pain. Worldwide, veterans and civilians with trauma histories and PTSD often reside in poor, under-resourced communities that lack specialty mental health services, and where services exist, they are often stigmatized. Most individuals with underlying trauma and PTSD present to medical settings with physical health complaints, which affords an opportunity to address underlying trauma. Trauma-informed health care can potentially help to reverse chronic stress, high-risk behaviors, and PTSD-related comorbidities that fuel chronic disease. Panelists will explain underlying mechanisms for the link between trauma and chronic disease, highlight gaps in the treatment of chronic disease, identify successful models of trauma-informed medical care, and describe ongoing advocacy efforts to incorporate trauma-informed care into national and global health care policy.

Despite rapid proliferation of deployment mental health programs across the United States Departments of Defense (DoD) and Veterans Affairs (VA), large numbers of Military Members, most Veterans and virtually all their family members seek mental health care from community providers. Unfortunately, research shows that most community providers don’t routinely take a military history; lack military cultural competence; feel neither competent nor confident treating PTSD; and don’t know how to coordinate with federal healthcare programs. In this session, panelists from the Association of American Medical Colleges (AAMC), the American Psychoanalytic Association (APsaA) and VA will describe efforts coordinated under the auspices of the White House Joining Forces Initiative to address these barriers. These include national dissemination of Military History Training, success in changing to the American Medical Association’s (AMA) Current Procedural Terminology [CPT] Evaluation and Management Services Guidelines to incentivize military history taking, and national promotion of free, fully accredited, web-based training on Military Cultural Competence and related training for civilian providers, trainees and new federal hires. Discussion will be offered by Kathryn Magruder, Ph.D., M.P.H. chair of ISTSS’ Trauma and Public Health Task Force followed by open discussion with attendees.
A growing body of evidence clearly shows that online feedback from particular brain activity can facilitate its volitional regulation; a procedure known as NeuroFeedback (NF). The clinical effectiveness of this method has been debated and only recently has begun gaining validity, mainly by technological advances of real-time fMRI and simultaneous EEG recording. Of particular interest to PTSD, recent fMRI-NF studies showed that learned control over amygdala BOLD activity corresponded with improved emotion-regulation and reduced psychiatric symptoms. Dr Bodurka will present studies testing the utility of fMRI-NF for down regulating the amygdala among PTSD patients. The clinical utility of fMRI-NF remains nevertheless limited due to the high cost and strenuous physical requirements of the scanning. Integrating the superior spatial resolution of fMRI with the accessibility and temporal informativeness of EEG could therefore have substantial clinical implications. Dr Hendler will present studies using both EEG-NF and prospective testing of resting IMRI to unveil neural processing that underlie successful training in PTSD.

From fMRI to EEG and Back: a Novel NF Approach for Stress Inoculation
(Bio Med, Bio/Int, N/A, A, N/A)

Hendler, Talma, MD, PhD
Tel Aviv University and Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

Studies point to the central role of hyper-active amygdala for risk to develop traumatic stress disorder. It is therefore assumed that learning to down regulate the amygdala activity through neurofeedback (NF) could prevent mental adversities following traumatic exposure. We tested this assumption via a novel NF approach based on an EEG model of amygdala BOLD activity (herby, EEG-Finger-Print, EFP). Using simultaneous IMRI we demonstrated that the EFP modulation during NF training predicted amygdala BOLD activity. In a second experiment we showed that learning to down-regulate the EFP on one day benefited volitional regulation of amygdala-BOLD activity using real-time fMRI on a following day, suggesting learning generalization. We then applied repeated EFP-NF sessions to 50 combat soldiers while on-duty using an interactive visual intelligent environment for feedback interface. We found that amygdala EFP-NF was superior to EEG alpha/theta-NF, as indicated by the effect size of decreased EFP signal and increased emotional regulation index following training. Together these finding provide compelling evidence that the EFP-NF is a promising low-cost and accessible training method for down regulating deep limbic activity, thus may provide an effective stress inoculation.

Emotion Regulation Training of Amygdala Using Real-Time fMRI- and EEG-Assisted Neurofeedback in Combat-Related PTSD
(Bio Med, Bio/Int-Mil/Vets, Adult, A, N/A)

Bodurka, Jerzy, PhD1; Phillips, Raquel, BS1; Zotev, Vadim, PhD1; Yuan, Han, PhD1; Wong, Chung Ki, PhD1; Wurzel, Brent, MD, PhD1; Meyer, Matthew, MD1; Krueger, Frank, PhD2; Feldner, Matthew, PhD2
1Laureate Institute for Brain Research and University of Oklahoma, Tulsa, Oklahoma, USA
2George Mason University, Fairfax, Virginia, USA
3University of Arkansas, Fayetteville, Arkansas, USA

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P r e s e n t e r s ´ s n a m e s a r e i n b o l d . D i s c u s s a n t s ´ s n a m e s a r e u n d e r l i n e d .
M o d e r a t o r s ´ s n a m e s a r e i n b o l d a n d u n d e r l i n e d . G u i d e s t o K e y w o r d
A b b r e v i a t i o n s l o c a t e d o n p a g e s 2 - 3 .
(P r i m a r y k e y w o r d , S e c o n d a r y K e y w o r d s , P o p u l a t i o n t y p e ) P r e s e n t a t i o n L e v e l – R e g i o n
We modulate left amygdala (LA) activity with real-time fMRI neurofeedback (rtfMRI-nf). Individuals with PTSD are able to use rtfMRI-nf to enhance control of LA hemodynamic response. Subjects receiving active feedback from LA were better able to activate their LA than subjects receiving control rtfMRI-nf from a brain region not involved in emotion regulation. We observed reduction in PTSD and depression ratings specific to the experimental group. We examine sustained changes in brain activity due to rtfMRI-nf and EEG connectivity analysis before and after rtfMRI-nf. We focused on default mode network and anterior cingulate cortex (ACC). Pregenual ACC connectivity was reduced in healthy and veterans with combat-related PTSD who received rtfMRI-nf LA training but not in veterans with PTSD who received control training. Self-reported symptoms of PTSD, anxiety and depression were reduced after LA training. Simultaneous EEG and rtfMRI-nf allows examining electrophysiological correlates of rtfMRI-nf training. Frontal EEG asymmetry (FEA) was associated with emotion/motivation and symptoms of depression and anxiety. Resting FEA exhibits an inverse correlation with PTSD severity. We show that FEA changes during rtfMRI-nf LA training correlate with PTSD severity ratings measured by the Clinician-Administered PTSD Scale and may provide information about patients’ response to treatment.

Tuning Pathological Brain Oscillations with Neurofeedback: A Theoretical Account and Implications for PTSD
(Bio Med, Bio/Int, N/A, A, N/A)

Ros, Tomas, PhD; Baars, Bernard, PhD; Lanius, Ruth, MD, PhD; Vuilleumier, Patrik, PhD

University of Geneva, Geneva, Switzerland
The Neurosciences Institute, San Diego, California, USA
University of Western Ontario, London, Ontario, Canada

Neurofeedback is emerging as a promising technique that enables self-regulation of ongoing brain oscillations. However, despite a rise in empirical evidence attesting to its clinical benefits, a solid theoretical basis is still lacking on the manner in which neurofeedback is able to achieve these outcomes. The present work attempts to bring together various concepts from neurobiology, engineering, and dynamical systems so as to propose a contemporary theoretical framework for the mechanistic effects of neurofeedback. The objective is to provide a firmly neurophysiological account of neurofeedback, which goes beyond traditional behaviorist interpretations that attempt to explain psychological processes solely from a descriptive standpoint whilst treating the brain as a ‘black box’. To this end, we interlink evidence from experimental findings that encompass a broad range of intrinsic brain phenomena: starting from ‘bottom-up’ mechanisms of neural synchronizaton, followed by ‘top-down’ regulation of internal brain states, moving to dynamical systems plus control-theoretic principles, and concluding with activity-dependent as well as homeostatic forms of brain plasticity. In support of our framework, we examine abnormal oscillatory activity in several brain disorders, with a particular focus on post-traumatic stress disorder (PTSD).

Symposium
Friday, November 6
2:45 p.m. to 4:00 p.m.
Balcony J-K – Affective Processes/Interventions Track

Bridging Scientific Evidence and Clinical Application: Risks and Resources Contributing to Symptomology and Recovery after Traumatic Stress among Sexual Minorities
(CulDiv, DV-Orient-Sub/Abuse-Mil/Vets, Adult, M, Industrialized)

Zimmerman, Lindsey, PhD; Kaysen, Debra, PhD
National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
University of Washington, Seattle, Washington, USA

Researchers focused on theoretical mechanisms contributing to recovery or psychopathology after trauma will describe analyses among three large adult samples. Studies include treatment-seeking and community samples, civilian and military samples, men and women, and within-subjects (sexual minority only) and between-subjects (heterosexual and sexual minority) designs. Among treatment-seeking heterosexual and sexual minority women (SMW), PTSD diagnoses were higher for SMW, but social support significantly moderated the relationship between sexual minority identification and measures of functional impairment and somatic complaints (Weiss). Among a nationally recruited sample of young adult sexual minority women, trauma exposure, emotion dysregulation and sexual minority stress were associated with higher alcohol use and PTSD symptomology over three years (Zimmerman). Among active-duty, lesbian, gay or bisexual male and female service members, military and life stressors, traumatic events, and sexual minority stress predicted PTSD symptoms, but disclosure of sexual orientation, or “outness,” was negatively associated with PTSD symptoms (Balsam). This research describes the risk and protective pathways that should be considered when developing or adapting prevention and treatment programs to address the high prevalence of PTSD and trauma-related sequelae among sexual minorities.

PTSD and Trauma-Related Difficulties in Sexual Minority Women: The Impact of Perceived Social Support
(CulDiv, Assess Dx-DV-Orient, Adult, M, Industrialized)

Weiss, Brandon, PhD; Gavert, Donn, MS; Cloitre, Marylene, PhD
National Center for PTSD, VA Palo Alto Health Care System, Menlo Park, California, USA
National Center for PTSD Dissemination and Training Division, Menlo Park, California, USA
This study examined posttraumatic stress disorder (PTSD) symptoms and sequelae among treatment-seeking sexual minority women (SMW) and the influence of social support (SS) on the relationship between sexual minority (SM) status and symptoms. SMW were hypothesized to endorse higher symptoms of PTSD and related difficulties, and SS was hypothesized to moderate the relationship between SM status and symptoms. Participants, women seeking treatment for PTSD related to interpersonal violence (n = 477; mean age = 36.07) where 22.9% identified as a SM, completed clinician-administered measures of PTSD and self-report measures of trauma-related difficulties and SS. Rate of PTSD diagnosis was higher for SMW. Both SS and SM status were predictive of suicidality, self-perceptions, depression, somatic complaints, and functional impairment. SS significantly moderated the relationship between SM status and both functional impairment (β = .26) and somatic complaints (β = -.39). High levels of SS had an equal and positive effect across SM and nonminority women alike, while low SS had a greater negative impact among SMW. Results suggest the particular salience of SS on functioning and symptom severity among SMW and the potential importance of including interventions addressing SS into PTSD treatments for SMW.

Trauma and PTSD Symptoms in a National Sample of Lesbian, Gay, and Bisexual Military Personnel
(CulDiv, Orient-Mil/Vets, Adult, M, Industrialized)

Balsam, Kimberly, PhD; Evans, Robert, BA; Bliss, Whitney, BA; Rincon, Christina, MS
Palo Alto University, Palo Alto, California, USA

This paper will look at correlates of PTSD symptoms among active-duty, LGB service members. Following the repeal of “Don’t Ask, Don’t Tell” in 2011, we conducted the first national, web-based health survey of 237 LGB women and men currently in the military in 2014-15. Participants were recruited via military and civilian news sources, social media, as well as listservs and ranged in age from 18 to 53. Participants included 71% male, 26% female, 1% transgender, and 1% other gender identified individuals. Demographic differences in trauma and PTSD symptoms were found in the sample. We examined a range of stressful experiences as correlates of PTSD and found that military and life stressors, traumatic events, and minority stress from being LGB (discrimination, internalized homophobia) predicted PTSD symptom level. Degree of disclosure of sexual orientation, or “outness”, was negatively associated with PTSD symptoms.

Drinking among Young Adult Sexual Minority Women: A Longitudinal Examination of Traumatic Experiences, Emotion Dysregulation and Minority Stress
(CulDiv, Ethnic-Orient-Sub/Abuse, Adult, M, Industrialized)

Zimmerman, Lindsey, PhD1; Kaysen, Debra, PhD2
1National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
2University of Washington, Seattle, Washington, USA

We evaluated how traumatic stress, minority stress and emotion dysregulation contribute to drinking among young adult (ages 18-25) sexual minority women. Participants were 1057 young adult women ages 18-25 who identified as Lesbian (41.5%) and Bisexual (58.5%); mean age at baseline was 21 years (SD = 2.1). The sample identified as White (54.2%), multiple racial backgrounds (16.6%), African American (9.6%) and Asian/Asian American (3.1%); 10.2% endorsed a Hispanic/Latina ethnicity. The traumatic life experiences questionnaire assessed trauma exposure, the daily heterosexist experiences questionnaire assessed minority stress, and the difficulties with emotion regulation scale assessed emotion dysregulation. We used negative binomial regression to model total weekly drinking. We controlled for age, sexual orientation, racial minority status (versus white), and Latina ethnicity (versus non-Latina/Hispanic). Models were trimmed using fit statistics until the most parsimonious model with only significant predictors were retained. Holding all other variables constant, vigilance to rejection due to sexual orientation was associated with a 45% increase in drinking over three years (95% CI=1.014-2.134). Prevention and intervention strategies to reduce drinking after trauma among young adult SMW should focus on reducing vigilance behaviors to reduce drinking risks.
Symposium
Friday, November 6
2:45 p.m. to 4:00 p.m.
Balcony L-M – Other Interventions Track

Using Technology at Multiple Levels of PTSD Treatment: Family Outreach, Patient Self-Management, Primary Care, and Specialty Care
(Tech, Mil/Vets, Adult, I, Industrialized)

Possemato, Kyle, PhD
Syracuse Veterans Affairs Medical Center, Syracuse, New York, USA

In order to meet the varied needs of veterans, PTSD services are now offered in a variety of different ways and settings. This symposium presents data from four studies that demonstrate the role that website and mobile apps can play in delivering care to Veterans with PTSD and their family members. Using technology in the delivery of mental health care services can be particularly helpful to individuals with PTSD because they often choose to live far away from treatment facilities to reduce hyperarousal and interpersonal conflict (Moreland et al., 2003). Presented studies span the full range of treatment intensity from support to family members, to self-management skills for veterans, to primary care-based brief treatment delivered by a mental health provider, to full-length PTSD psychotherapy. Patient and provider characteristics that are related to technology use will be described that can help inform policy on how technology can contribute to improved veteran health. Presentations also contribute to bridging the gap between science and clinical practice by presenting results from both randomized clinical trials and data from real-world program evaluation efforts. Overall, presentations will demonstrate how novel uses of technology can make mental health services more patient-centered, accessible, and efficient.

A Pilot Trial of VA-CRAFT: Online Training to Enhance Family Well-Being and Veteran Mental Health Service Use
(Clin Res, Fam/Int-Mil/Vets, Adult, I, Industrialized)

Erbes, Christopher, PhD, LP1; Kuhn, Eric, PhD2; Gifford, Elizabeth, PhD3; Spoon, Michele, PhD4; Meis, Laura, PhD, LP5; Polusny, Melissa, PhD6; Oleson, Heather, MS7; Taylor, Brent, PhD8; Hagel-Campbell, Emily, MS9; Wright, Jillian, MA Student10
1Minneapolis VAHCS, Center for Chronic Disease Outcome Research, University of Minnesota Medical School, Minneapolis, Minnesota, USA
2National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
3Center for Innovation to Implementation, VA Palo Alto Healthcare System, Menlo Park, California, USA
4National Center for PTSD, U.S. Department/Veterans Affairs, Minneapolis, Minnesota, USA
5Minneapolis VA Health System and University of

This pilot project examined the acceptability and effect of VA-CRAFT, an online adaptation of an empirically supported family-focused outreach program, (Community Reinforcement and Family Training), on Veteran mental health and substance abuse service utilization and family member well-being. Family members of Veterans who screened positive for PTSD or alcohol use disorders and were not engaged in mental health services were randomly assigned to complete the VA-CRAFT online training (n = 34) or a wait-list condition (n = 32) over 90 days. Outcomes were assessed with VA administrative data on Veteran service utilization and partner-completed measures of relationship functioning, individual distress, and caregiver burden. Qualitative interviews were also completed by 20 family members in the VA-CRAFT condition. Family members in the VA-CRAFT group had a significantly greater decrease in reports of caregiver burden on the Caregiver Burden Scale (from M = 1.92 to M = 1.56) than family members in the control group (from M = 1.81 to M = 1.84, p < .0001). There was no statistically significant difference between the two groups on Veteran mental health service utilization. While the intervention was well received and shows promise in reducing caregiver burden, further enhancements may be needed to aid family in encouraging Veterans to engage in care.

Clinician-Supported PTSD Coach: Pilot Results on Changes in PTSD Symptoms and Treatment Seeking
(Tech, Care, Adult, I, Industrialized)

Possemato, Kyle, PhD1; Kuhn, Eric, PhD2; Johnson, Emily, PhD2
1Syracuse Veterans Affairs Medical Center, Syracuse, New York, USA
2National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
3Center for Integrated Healthcare, Syracuse VA Medical Center, Syracuse, New York, USA

PTSD in veterans seeking primary care services is common and undertreated. Primary care-based mental health services to teach veterans PTSD management skills and ready them for specialty mental health care are needed. Clinician-Supported PTSD Coach (CS-PTSD Coach) consists of 4 brief sessions delivered by a mental health provider integrated into primary care and incorporates the use of the PTSD Coach mobile app. Sessions focus on making a personalized plan to target bothersome symptoms, teaching management strategies, and assigning specific PTSD Coach activities for the participant to complete on their own. Primary care veterans with PTSD (N=20) were randomized to CS-PTSD Coach or Self-Managed PTSD Coach (SM-PTSD Coach), which consisted of one 10-minute session encouraging PTSD Coach use. Eighty percent of CS-PTSD Coach participant reported clinically significant improvement (i.e., 10 pt decrease on the PTSD Checklist) and 70% engaged in at least 2 specialty mental health treatment sessions after 8 weeks of completing treatment, compared to 30% and 40%, respectively among the SM-PTSD Coach.
participants. We found a medium between-groups effect size (Cohen’s D = .55) for change in PTSD symptoms. These promising results support further study of CS-PTSD Coach, specifically and psychological interventions that combine clinician support with technological resources, more generally.

Using Mobile Apps to Support the Provision of Evidence-Based Psychotherapy for PTSD
(Tech, Clin Res-Clinical Practice, Prof, I, Industrialized)

Kuhn, Eric, PhD1; Eftekhari, Afsoon, PhD1; Hoffman, Julia, PsyD1; Owen, Jason, PhD, MPH1; Crowley, Jill, PhD1; Rosen, Craig, PhD1; Ruzek, Josef, PhD1
1National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
2VA - National Center for PTSD, Menlo Park, California, USA
3VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

Integrating technology into psychotherapy can potentially transform the delivery and impact of care. Mobile apps to support evidence-based psychotherapies for PTSD are particularly promising as they can increase convenience, facilitate in-session tasks, improve adherence, support symptom monitoring, and enhance psycho-education. VA and DoD have created such apps, including PE Coach for patients receiving Prolonged Exposure (PE) therapy. Here we present 2 lines of research on integrating PE Coach into PE. The first examines clinicians’ characteristics and perceptions of PE Coach relating to its adoption. Clinician factors (e.g., age, smartphone ownership) and perceptions of the app (e.g., complexity) predict intention to use (before app release) and use of PE Coach. The second examines use by patients of clinicians in the VA PE National Training program. Over about a year, 41.3% (n = 201) of training cases used PE Coach and use appears to be increasing over time. Clinicians rated PE Coach between moderately and very helpful. Most patients who did not use PE Coach lacked access to mobile devices. Finally, patients who used PE Coach were less likely to drop out of PE than those who did not use it. This research is providing valuable insight into factors that affect the adoption of PE Coach, its potential impact on care, and intervention targets to enhance implementation efforts.

Web-Based Self-Management Cognitive Behavioral Treatment for OEF/OIF Veterans with PTSD and Substance Misuse: PTSD Outcomes
(Clin Res, Anx-Tech, Adult, I, Industrialized)

Rosenblum, Andrew, PhD1; Acosta, Michelle, PhD1; Possemato, Kyle, PhD2; Barrie, Kimberly, MPH, MSW2; Fong, Chunki, MS1; Lantinga, Larry, PhD2; Maisto, Steve, PhD2; Marsch, Lisa, PhD4
1National Development and Research Institutes, Inc., New York, New York, USA
2Syracuse Veterans Affairs Medical Center, Syracuse, New York, USA
3Syracuse University, Syracuse, New York, USA
4Dartmouth College, Lebanon, New Hampshire, USA

Many returning veterans present with PTSD, yet do not receive treatment. The current project developed a web-based self-management (CBT) intervention to reduce PTSD and related problems in OEF/OIF veterans in primary care. We randomized 162 veterans with PTSD/sub-threshold PTSD and substance misuse to primary care treatment as usual (TAU) or TAU plus Web-CBT. Web-CBT included 23 modules, accessible over 12 weeks. Participants completed baseline and 5 follow up interviews over 24 weeks. PTSD Checklist total score and a clinically significant change in PTSD (CSC; > 10 pt decline) were measured. Mixed-effects analysis and logistic regression were conducted. No significant differences were found in the intervention groups over time. However when baseline PTSD scores were dichotomized, a significant severity by treatment interaction on CSC at 24 weeks emerged (p=.02); rates of CSC were higher for Web-CBT than TAU (33% vs. 10%; p=.03) in the lower PTSD severity group, but no differences were found between conditions in the higher severity group. Higher severity group participants reported higher problem severity in numerous other areas at baseline. Our study demonstrates the potential promise of a web-based self-management tool for veterans with PTSD, but indicates that this type of intervention may be insufficient for those presenting with the highest levels of problem severity.
Symposium
Friday, November 6
4:15 p.m. to 5:30 p.m.
Galerie 2 – Cognitive Processes/Interventions Track

Treatment of Sleep Disturbance in PTSD: Nightmare-Focused and Insomnia-Focused Treatments, Treatment Moderators, and the Effects of Neurocognitive Functioning
(Clin Res, Cog/Int-Sleep-Mil/Vets, Adult I, Industrialized)

Harb, Gerlinde, PhD; Ross, Richard, MD, PhD
Philadelphia VA Medical Center, Philadelphia, Pennsylvania, USA

Recent years have seen an increased focus on the sleep disturbance in PTSD as a primary focus of treatment. This symposium reports on outcome data from a large randomized clinical trial comparing two active cognitive-behavioral treatments of posttraumatic sleep disturbance in U.S. Veterans who served in Afghanistan and Iraq. Four presentations will focus on important facets of the treatment of the sleep problems in this population. First, the differential response to two sleep-focused cognitive-behavioral interventions will be described. Second, we will discuss the content of Veterans’ nightmares and qualitative aspects of changes with Imagery Rehearsal therapy. Third, we will report on the effects of veterans’ neurocognitive functioning on treatment outcome and dropout. Finally, the discussant will place the findings reported in these presentations into the larger context of the state of the science of sleep research in PTSD.

Treating Posttraumatic Sleep Disturbance in U.S. Veterans Who Served in Iraq and Afghanistan: Findings from a Randomized Controlled Trial
(Clin Res, Sleep-Mil/Vets, Adult I, Industrialized)

Harb, Gerlinde, PhD; Cook, Joan, PhD; Phelps, Andrea, PhD; Forbes, David, PhD; Gehrman, Philip, PhD; Harpaz-Rotem, Ilan, PhD; Localio, Russell, PhD; Cary, Mark, PhD; Ross, Richard, MD, PhD

1Philadelphia VA Medical Center, Philadelphia, Pennsylvania, USA
2Yale School of Medicine, West Haven, Connecticut, USA
3Australian Centre for Posttraumatic Mental Health, University of Melbourne, Carlton, Victoria, Australia
4Australian Centre for Posttraumatic Mental Health, University of Melbourne, East Melbourne, Victoria, Australia
5University of Pennsylvania, Philadelphia, Pennsylvania, USA
6Yale University School of Medicine; VA Connecticut Healthcare System, West Haven, Connecticut, USA

Imagery Rehearsal (IR) has received increasing attention as a treatment for posttraumatic nightmares. This randomized controlled trial (RCT) examined whether IR added to components of CBT for insomnia (cCBT-I) provides additional benefit in treating PTSD sleep problems compared to cCBT-I alone. The primary outcomes of the RCT in 108 U.S. veterans with severe PTSD (mean CAPS= 85.5) and sleep disturbance (mean weekly nightmares= 5.4) will be presented. ITT analyses using longitudinal mixed effects models found that nightmare frequency and distress decreased from baseline to follow-up, with no significant difference between the treatments. The percentages of veterans with clinically significant decreases in nightmare frequency (baseline to 6 months post) in IR+cCBT-I (N=41) versus cCBT-I (N=38) were 39.0% and 42.1%, respectively (X2(2)=0.08, p=0.78)). Clinically significant changes in sleep were seen in 51.2% and 44.7% of veterans, respectively (X2(2)=0.33, p=0.56). Further, both groups reported reductions in general sleep disturbance (p < .001). The presentation will also discuss findings from subgroup analyses of the characteristics of those veterans who improved with each of the two treatments to elucidate important treatment- moderating factors. These results will be interpreted in the context of the current evidence base for nightmare- and insomnia-focused treatments.

Effects of Neuropsychological Functioning on Outcomes and Dropout in a Randomized Trial of Sleep Interventions
(Clin Res, Cog/Int-Bio/Int-Sleep, Adult I, Industrialized)

Scott, James, PhD; Harb, Gerlinde, PhD; Brownlow, Janeese, PhD; Gur, Ruben, PhD; Ross, Richard, MD, PhD

1University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
2Philadelphia VA Medical Center, Philadelphia, Pennsylvania, USA
3University of Pennsylvania, Philadelphia, Pennsylvania, USA

Posttraumatic stress disorder (PTSD) is associated with neuropsychological deficits (e.g., verbal memory), which could affect treatment response. As part of a trial of two cognitive-behavioral treatments for PTSD-related sleep problems, 94 U.S. Veterans completed (at study entry) the Penn Computerized Neurocognitive Battery (CNB), a widely validated battery of tests assessing attention, cognitive control, learning and memory, and spatial processing. Across both treatments, individuals who showed clinically significant improvements in sleep quality (from baseline to 6 months post) had better performance on a measure of verbal immediate memory at baseline compared to those who did not show significant improvements (p =.03). Moreover, verbal immediate memory was significantly associated with change in nightmare distress (r= .42; p < .001) across both treatments, such that those with better verbal learning were more likely to experience greater reductions in nightmare distress. These differences were not explained by depression or attention performance. The presentation will also discuss effects of traumatic brain injuries on treatment...
outcomes and the effects of neuropsychological functioning on treatment adherence and dropout. Results indicate the utility of considering neuropsychological functioning in treatment implementation and outcomes.

**Combat-Related PTSD Nightmares: Which Veterans Benefit from Imagery Rehearsal?**

(Clin Res, Clin Res-Clinical Practice-Cog/Int-Sleep, Adult, I, Global)

Cook, Joan, PhD\(^1\); Harb, Gerlinde, PhD\(^2\); Phelps, Andrea, PhD\(^3\); Ross, Richard, MD, PhD\(^3\)

\(^1\)Yale School of Medicine, West Haven, Connecticut, USA

\(^2\)Philadelphia VA Medical Center, Philadelphia, Pennsylvania, USA

\(^3\)Australian Centre for Posttraumatic Mental Health, University of Melbourne, Carlton, Victoria, Australia

Imagery Rehearsal (IR) is an emerging treatment for combat-related PTSD nightmares but much remains to be learned about which veterans are most likely to benefit. This study investigated the response of 33 U.S. veterans in the IR group of an RCT. General factors including treatment engagement and adherence, as well as specific factors pertaining to the nightmares (e.g., nature of the targeted nightmares and the rescripted dream) were assessed. New dream scripts were more often realistic (66%) rather than fantastic in nature. Most (55%) began in a military context and then changed to a different setting. The most common nightmare themes were safety (43%), self-efficacy (27%) and enjoyment-of-life (24%). In terms of treatment outcome, nightmares themes of guilt and danger were related to significantly less improvement in nightmare distress (r=.37; .35) and nightmare frequency (r=.66; .42). The types of changes (setting, sensory detail, themes) made in the new scripts were generally unrelated to outcome. Ratings of treatment engagement (motivation/ambivalence, barriers, expectancy) as well as treatment adherence and imagery practice, and the effects of these variables on treatment outcome will also be presented. Finally, we will address the nature of changes observed within IR through a qualitative analysis of therapists’ reports integrated with sleep and nightmare diary data.

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**Workshop Presentation**

Friday, November 6

4:15 p.m. to 5:30 p.m.

Galerie 3 – Affective Processes/Interventions Track

**“Are You in the Green Zone?” – Using Stress Responses and Stress Recovery to Help Families and Clinicians Address Physiological and Behavioral Symptoms of Trauma and Vicarious Trauma**

(Practice, Complex-Fam/Int-Bio/Int-Self-Care, Lifespan, M, Industrialized)

Christensen, Jacqueelyn, PhD\(^1\); Richards, Jessica, LCSW\(^2\); Lillas, Connie, PhD, LMFT, RN\(^3\)

\(^1\)Woodbury University, Burbank, California, USA

\(^2\)Los Angeles Child Guidance Clinic, Los Angeles, California, USA

\(^3\)Interdisciplinary Training Institute, Pasadena, California, USA

Early traumatic experiences can lead to long-term changes in peripheral and central stress response systems, resulting in toxic stress and patterns of allostatic load. While behavioral and physiological indicators of disrupted stress response and stress recovery systems are evident, these behaviors are often misinterpreted as misbehavior, defiance, or lethargy, and there is often difficulty bringing this awareness into clinical practice for use with infants, children, and families. To bridge this gap, the first clinical step of the Neurorelational Framework (NRF) (Lillas & Turnbull, 2009) utilizes neutral language (colors) and identifiable markers (patterns of eyes, mouth, muscle tone, etc.) to help families identify stress responses, stress recovery, and the importance of the sleep – awake cycles in sustaining self-regulation and addressing trauma symptoms. Practitioners can use the NRF tools in conjunction with established EBTs to help families differentiate between calm alert (green) arousal, and hyperalert (red), hypoalert (blue), and hypervigilant (blue/red) states of arousal. Illustrations, video, and worksheets will support participants’ parallel process in dealing with vicarious trauma along with understanding the family’s trauma history. Interdisciplinary, pilot NRF teams, focused on trauma in foster care are being evaluated across five sites in four US states.
Sleep/Bio-Med Paper Session
Friday, November 6
4:15 p.m. to 5:30 p.m.
Galerie 4 – Bio-Med/
Genetics Track

Psychological Treatment for Sleep Disturbances in Treating Posttraumatic Stress Disorder Symptoms: A Meta-Analysis of Randomized Controlled Trials
(Clin Res, Sleep, Adult, M, Global)

Chan, Christian, PhD; Ho, Fiona, PhD Candidate; Tang, Kristen, MA Student
The University of Hong Kong, Hong Kong, Hong Kong
S.A.R., China

Sleep disturbances are frequently reported in patients with PTSD. Sleep-specific psychological treatments provide an alternative to conventional trauma-focused treatments. The current meta-analysis evaluated the efficacy of sleep-specific psychological treatment in alleviating PTSD, sleep, and depressive symptoms. A total of 12 studies were included in the meta-analytic comparisons between sleep-specific psychological treatments and waiting-list control groups at posttreatment. Random effects models showed significant reduction in report PTSD and depression symptoms, and insomnia severity in the sleep-specific treatment group. The corresponding effect sizes, measured in Hedges' g, were 0.58, 0.44, and 1.15, respectively. The effect sizes for sleep diary-derived sleep onset latency, wake after sleep onset, and sleep efficiency were 0.83, 1.02 and 1.15, respectively. The average study attrition rate of sleep-specific treatment was relatively low (11.7%), with no significant difference from the control group (8.6%). In conclusion, sleep-specific psychological treatments appear to be efficacious and feasible in treating PTSD.

Obstructive Sleep Apnea in Veterans Seeking Treatment for Posttraumatic Stress Disorder in the VA
(Bio Med, Clinical Practice-Illness-Sleep, Adult, I, Industrialized)

Kelly, Ursula, PhD, RN1; Forbus, Lauren, BS2; McCullough, Sharon, MSW2
1Atlanta VAMC/Emory University, Decatur, Georgia, USA
2Department of Veteran Affairs Medical Center, Decatur, Georgia, USA

Objectives: To determine 1) rates of positive screening for obstructive sleep apnea (OSA) in veterans in treatment for posttraumatic stress disorder (PTSD) in a VA Medical Center, and 2) documented polysomnography (PSG; i.e. sleep study) testing and results for those at high risk for OSA. Methods: Veterans (N = 266; 25.6% female) were screened for risk for OSA at their initial visit via the Berlin questionnaire from April to September 2014. For those deemed at high risk for OSA, rates of PSG testing and results were extracted from the VA electronic medical record. Descriptive statistics were used for analysis using SPSS 21.0. Results: The majority (n=198; 74.4%) scored at high risk for OSA. Of those, 118 (59.6%) had no record of a completed PSG. Of the remaining 76 who completed a PSG at the VA (n=53; 27%) or reported non-VA PSG testing (n=23; 11%), 63 (82.9%) had a diagnosis of OSA. Conclusions: OSA risk in this sample was higher than reported rates in the general veteran population. Given high rates and intractability of insomnia in patients with PTSD, assessment and treatment of OSA is essential to effectively address insomnia and to avoid exacerbating OSA with commonly used treatments for insomnia (e.g., benzodiazepines). Detection and treatment of OSA among veterans with PTSD may improve sleep quality and reduce negative health outcomes associated with OSA.
Sleep Disturbances and Suicidal Ideation in a National Canadian Military Sample
(Clin Res, Clinical Practice-Sleep-Mil/Vets, Adult, M, Industrialized)

Richardson, Don, MD; King, Lisa, MSc; Corbett, Bradley, PhD; Snaider, Philippe, MA; Elhai, Jon, PhD; Zamorski, Mark, MD
1University of Western Ontario, Depts of Psychiatry and Psychology, London, Ontario, Canada
2Parkwood Hospital Operational Stress Injury Clinic, London, Ontario, Canada
3University of Western Ontario, London, Ontario, Canada
4Ryerson University, Toronto, Ontario, Canada
5University of Toledo, Toledo, Ohio, USA
6Department of National Defence, Ottawa, Ontario, Canada

We investigated the relationship between sleep disturbances (SD) and suicidal ideation (SI) in a nationally-representative, full-time Canadian Forces (CF) sample deployed to Afghanistan between 2001 and 2012. Data from 6,700 personnel obtained from the 2013 Canadian Forces Mental Health Survey (CFMHS) was analyzed using logistic regression to determine whether SD predicted SI while controlling for probable 12-month posttraumatic stress disorder (PTSD), major depressive disorder (MDD), generalized anxiety disorder (GAD) and alcohol addiction or dependence (AD). Sleep disturbances were measured using a single item administered in CFMHS section evaluating General Health. Suicidal ideation was measured using a single item that assessed whether respondents had seriously thought about committing suicide or taking their own life in the past 12 months. Results indicated that SI was reported by 16.43% of the sample and 4.26% had experienced SI in the past year. We found that SI was significantly related to PTSD, depression, generalized anxiety disorder, and alcohol addiction (p < 0.001) and trauma symptoms (r = .769, p < 0.001). All psychiatric disorders were statistically significant. Findings support the need to screen military populations for SD as a potentially modifiable condition related to SI especially since interventions for SD might reduce the frequency and intensity of SI within military personnel.

Symposium
Friday, November 6
4:15 p.m. to 5:30 p.m.
Galerie 5 – Other Interventions Track

Long-Term Mental Health Consequences of Genocide in Rwanda
(Global, Health, Lifespan, I, E & S Africa)

Fabri, Mary, PsyD
WE-ACTx, San Francisco, California, USA

More than 20 years have passed since the horrific genocide of the Tutsi in Rwanda. The country has made remarkable gains in recovery, especially in health care. This symposium will present on the mental health of elderly, youth, and families in Rwanda illustrating the longer lasting consequences of mass violence.

Trauma and Youth Living with HIV in Post-Genocide Rwanda
(Global, Health, Child/Adol, I, E & S Africa)

Fabri, Mary, PsyD; Ingbire, Charles, MSc; Donenberg, Geri, PhD; Emerson, Erin, MA; Nsanzamana, Sabin, MD; Cohen, Mardge, MD
1WE-ACTx, San Francisco, California, USA
2WE-ACTx, Kigali, Kigali, Rwanda
3University of Illinois Chicago, Chicago, Illinois, USA
4Rwanda Biomedical Center, Kigali, Kigali, Rwanda

Youth are vulnerable in post-conflict settings with country infrastructures, communities, and families fractured. Rwanda, with 61% of the population younger than 25 years, presents an opportunity to examine how youth who were infants during or born after the genocide are faring 20 years later. During baseline assessment of a medication adherence study funded by NICHD, 159 youth living with HIV, completed scales previously validated in Rwanda by Betancourt et al assessing childhood trauma events, symptoms, and anxiety/depression. Participants were 14-21 years old, 51% female, and 92% acquired perinatally. The youth self-reported physical abuse ever (27%), child sexual abuse (8%), forced sex ever (8%), forcible leave home (15%), and feeling unsafe at home (23%). Additionally, 21% have tried alcohol. The mean anxiety/depression score was 0.55 (range 0-2) with 16% reporting an attempt to hurt or kill themselves in the last six months. Anxiety/depression was correlated with the number of trauma experiences (r = .502, p < 0.001) and trauma symptoms (r = .769, p < 0.001). Resilience and self-esteem were negatively correlated with trauma symptoms. Self-esteem was negatively correlated with the number of trauma experiences. HIV medication adherence was negatively associated with trauma events and symptoms. The data support the relevance of trauma-informed interventions for Rwandan youth.
The Mental Health Needs of Elderly in Rwanda
(Practice, Health, Older, I, E & S Africa)

Rutembesa, Eugene, PhD
National University of Rwanda, Butare, Rwanda

Traditionally, in Rwanda, elderly are cared for within families. With the loss of family members in the 1994 genocide of Tutsis, the question emerges, who is caring for Rwandan elders? AVEGA Agahozo, the Association of Widows of Rwanda, with support from United Kingdom charity, Survivors Fund, administered a 67-item survey to 455 participants (96% widows and 4% widowers) to assess the current health status of elderly without spouses and children to assist them. The survey took place over a one-year period, from December 2013 until December 2014. The age of respondents was 60 years and older. Nearly 60% had no living relatives. The most common complaint endorsed by 98.2% of respondents was “not happy in my life,” followed by 76.6% describing, “old age affected my day-to-day life.” Questions related directly to mental health found 27.7% reporting symptoms of trauma and depression and 24.6% “feel I am a burden to the community.” Somatic complaints included back pain (34.7%), poor eyesight (31.4%), and headaches (28.6%). The genocide in Rwanda has created vulnerabilities in the surviving elders. There are current efforts to engage communities, develop multi-disciplinary approaches to elder care, and convene a national forum to address the needs of the elderly.

Impact of a Family-Based Intervention on Mental Health, Alcohol Use, and Intimate Partner Violence in Caregivers Living with HIV in Post-Genocide Rwanda
(Clin Res, DV-Fam/Int/Global-Sub/Abuse, Lifespan, I, E & S Africa)

Ng, Lauren, PhD; Kirk, Catherine, MPH; Betancourt, Theresa, ScD, MA
1Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
2Partners In Health, Kigali, Kigali, Rwanda
3Harvard School of Public Health, Boston, Massachusetts, USA

The Family Strengthening Intervention (FSI) is a manualized intervention designed to build resilience and prevent mental health problems in youth with caregivers living with HIV in Rwanda (Betancourt et al., 2014). While FSI’s effects on children have been investigated, this study assessed the impact of FSI on mental health, alcohol use, and intimate partner violence (IPV) in caregivers, many of whom are coping with the consequences of the genocide. A randomized controlled trial of 82 families (N=123 caregivers) was conducted. Families were randomized to FSI or treatment-as-usual (TAU), stratified by single-or dual-caregiver families. Blinded self-report assessments occurred at baseline, post-intervention, and three-month follow-up. Mixed-models with clustering by family assessed the impact of FSI on mental health, alcohol use, and intimate partner violence (IPV) in caregivers, many of whom are coping with the consequences of the genocide. A randomized controlled trial examining components of three different intervention, and three month follow-up.

59% of dual-caregivers reported IPV. At 3-month follow-up, caregivers in FSI reported less alcohol use and IPV than caregivers in TAU. There were no differences in PTSD or anxiety/depression symptoms. A family-based intervention designed to prevent mental health problems in children appears to also have positive effects on caregiver alcohol use and IPV. These differences are particularly notable given that caregivers were coping with HIV and high rates of PTSD.

Workshop Presentation
Friday, November 6
4:15 p.m. to 5:30 p.m.
Galerie 6 – Child Trauma Track

Cue-Centered Therapy for Youth Exposed to Chronic Trauma: A Structured Multi-Modal Intervention
(Practice, Chronic-Clin Res, Child/Adol, M, N/A)

Kletter, Hilit, PhD
Stanford University School of Medicine, Stanford, California, USA

A child psychologist will present an overview of Cue-Centered Therapy (CCT), a manual-based treatment protocol for youth exposed to chronic trauma. Demonstration of how CCT extends existing trauma interventions will be provided. Theoretical concepts, goals, and objectives for each phase of CCT will be described and case examples will be used to demonstrate the core components of the intervention. Results from a randomized-controlled trial demonstrating the effectiveness of CCT compared to waitlist will be discussed as well as plans for a randomized-controlled trial examining components of three different treatment conditions: CCT, TF-CBT, and treatment as usual. The audience will be engaged in discussion of challenges in treatment of ongoing trauma and how CCT can be used to address those challenges along with how practitioners can adapt CCT to the specific populations they treat.
Workshop Presentation
Friday, November 6
4:15 p.m. to 5:30 p.m.
Acadia – Assessment and Diagnosis Track

Measurement of ICD-11 PTSD and Complex PTSD
(Assess Dx, Clin Res-Complex-Res Meth, Adult, M, Global)

Bisson, Jonathan, MD; Cloitre, Marylene, PhD; Roberts, Neil, DPsych(Clin); Brewin, Chris, PhD
1Cardiff University School of Medicine, Cardiff, Wales, United Kingdom
2National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
3Cardiff and Vale University Health Board, Cardiff, United Kingdom
4University College London, London, United Kingdom

In 2017, ICD-10 will be replaced by ICD-11. The proposed ICD-11 PTSD symptom criteria represent a step change from the current criteria, comprise six items and introduce a new parallel diagnosis of complex PTSD. In advance of 2017, it is important that measures are developed to accurately determine the presence or absence of ICD-11 PTSD and complex PTSD (discriminative measures) along with measures that accurately detect important changes in levels of symptomatology (evaluative measures). Ideally, a single measure would be both discriminative and evaluative. Developers of a structured interview and questionnaire to assess the presence and severity of ICD-11 PTSD and Complex PTSD will describe the instruments and their development. The use of the interview will be illustrated with the help of video recordings to demonstrate how the phenomena of ICD-11 PTSD and Complex PTSD are assessed and rated. Data on the psychometric properties of the instruments will be presented and issues around administration of the measures and overlap with the assessment of PTSD according to the DSM5 criteria will be discussed with audience interaction.

Master Methodologist
Friday, November 6
4:15 p.m. to 5:30 p.m.
Salon A-C – Bio-Med/ Genetics Track

Genomic Regulation by Early Life Experience: Epigenetics and Psychopathology
(Bio Med, Aggress-CSA-Depr-Genetic, Lifespan, I, Industrialized)

Turecki, Gustavo, MD, PhD
McGill University / Douglas Institute, Montreal, Quebec, Canada

The early-life environment has important consequences on behavioral development, and specifically, adversity experienced during early-life is associated with increased risk for psychopathology in adulthood. Only until recently have we started to uncover some of the mechanisms accounting for the behavioral changes induced by early-life adversity. The epigenome is responsive to the environment and indeed, landmark studies in rodents have described variations in early-life environment that stably regulate the expression of key gene systems involved in behavioral and emotional responses by epigenetic processes. Thus, through epigenetic regulation, early-life adversity is capable of altering behavioral development and increasing the vulnerability toward psychopathology. In this lecture, Dr. Turecki will review studies that indicate that early-life adversity leads to differential epigenetic regulation of key biological systems, which in turn increase risk of psychopathology. He will discuss novel epigenetic mechanisms and consider important methodological issues in epigenetic studies of behavioral phenotypes in humans.
Symposium
Friday, November 6
4:15 p.m. to 5:30 p.m.
Salon D – Public Health Track

Do Social and Geographic Context Matter? Multilevel Perspectives on the Impact of Trauma
(Global, Nat/Dis-Torture-Civil/War, Adult, M, Global)

Sonis, Jeffrey, MD, MPH; Steel, Zachary, PhD
1University of North Carolina at Chapel-Hill, Chapel Hill, North Carolina, USA
2University of New South Wales, Randwick, New South Wales, Australia

Does the social and geographic context in which trauma occurs affect individual responses to trauma? In the past 20 years, there has been a burgeoning recognition that community-level factors have an impact on individual health and may modify the effect of individual-level exposures that affect health. At the same time, there have been advances in statistical methods for conducting multilevel analyses across a range of outcome types. This symposium adds to the emerging body of research on multilevel (community-level and individual-level) effects on trauma responses by exploring those effects among survivors of disaster and genocide. The first presentation describes cross-level interactions between community resources and individual stressors in a population-based study of New York City residents affected by Hurricane Sandy. The second presentation reports the impact of both community-level markers of tsunami severity (mortality, damage to the landscape and the built environment) and individual trauma on Indonesians affected by the Indian Ocean tsunami of 2004. The third presentation focuses on the effects of both community-level indicators of genocide severity (mortality, historical accounts of regional differences in Khmer Rouge brutality) and individual-level trauma among Cambodian survivors of the Khmer Rouge era genocide, 1975-1979.

Impact of Multilevel Traumatic Exposures on Mental Health among Cambodian Survivors of the Khmer Rouge Genocide
(Global, Rights-Torture-Civil/War, Adult, M, E Asia & Pac)

Sonis, Jeffrey, MD, MPH; Gibson, James, PhD; Williams, Nathalie, PhD; de Jong, Joop, MD, PhD; Hean, Sokhom, PhD
1University of North Carolina at Chapel-Hill, Chapel Hill, North Carolina, USA
2Washington University in St Louis, St Louis, Missouri, USA
3University of Washington, Seattle, Washington, USA
4Vrije Universiteit, Amsterdam, Netherlands
5Center for Advanced Study, Phnom Penh, Cambodia

War and genocide are, by definition, collective experiences yet most research on their psychosocial effects has evaluated only the impact of trauma experienced at the individual level. The purpose of this project was to determine whether: 1) community-level indicators of violence had an impact on mental health over and above individual-level trauma exposure among survivors of the Cambodian genocide (1975 – 1979); 2) there is a cross-level (community-level by individual-level) interaction, i.e., the effect of individual-level trauma depends on community-level indicators of Khmer Rouge (KR) era violence. Participants were members of a nationally representative sample of Cambodians who survived the KR era and participated in a longitudinal study of the impact of the KR Tribunal. Through multi-level analyses, we explore the impact of three community-level indicators of violence (1) mortality estimates, based on mass grave data; 2) mortality estimates, based on sibling survival data; 3) aggregation of individually-measured KR-era trauma) and individual level KR-era trauma on PTSD and depression. Results demonstrate the value of including combinations of violence when assessing the mental health impact of genocide.

Short- and Longer-Term Relationships among Community Mortality and Damage, Individual Exposures, and Post-traumatic Stress Reactivity
(Social, Global-Nat/Dis-Res Meth, Adult, M, E Asia & Pac)

Frankenberg, Elizabeth, PhD; Sumantri, Cecep, MA, PhD Student; Thomas, Duncan, PhD
1Duke University, Durham, North Carolina, USA
2SurveyMETER, Indonesia, Depok, Sleman, Yogyakarta, Indonesia

At 7:58 am on December 26, 2004, an earthquake measuring 9.3 on the Richter scale occurred off Indonesia. In Aceh, the Indonesian province closest to the rupture, the resulting tsunami engulfed communities along 800 kilometers of coastline, killing some 160,000 people. Drawing on data we collected as part of the Study of the Tsunami Aftermath and Recovery (STAR) we document post-traumatic stress reactions and depressive symptoms for a representative sample of over 9,000 adults who were interviewed annually for five years in the aftermath of the disaster. At the tsunami these individuals were living in 487 communities in Aceh and the neighboring province of North Sumatra. Using multi-level models we relate indicators of psycho-social health (post-traumatic stress reactions and depression) to community-level measures of tsunami mortality and extent of physical damage to the built and natural environment, to individual-level exposure to trauma and loss as a result of the disaster, and to demographic and socio-economic background variables. Our results speak directly to the need for evidence on the longer-term mental health consequences of disasters based on longitudinal data from samples that represent the pre-disaster population and that are able to account for community-level impacts, as well as individual exposures.
Community-Level Factors and Mental Health in the Aftermath of Hurricane Sandy
(Social, Acute-Comm/Int-Nat/Dis-Pub Health, Adult, M, Industrialized)

Lowe, Sarah, PhD1; Sampson, Laura, BA2; Gruebner, Oliver, PhD3; Galea, Sandro, MD, DrPH4
1Columbia University, Mailman School of Public Health, New York, New York, USA
2Boston University, Boston, Massachusetts, USA
3Mailman School of Public Health, New York, New York, USA

Objective: Few studies have explored the interactive effects of individual- and community-level factors on post-disaster mental health. We aimed to explore such effects in a population-based sample of Hurricane Sandy survivors. Methods: Residents of Sandy-affected New York City communities reported on disaster-related stressors (e.g., displacement, housing damage) and mental health (posttraumatic stress and major depression [MD] symptoms, alcohol and prescription drug abuse, and perceived mental health needs). Data on community-level resources (economic development, social capital) from the US Census, and community-level exposure from the FEMA Modeling Task Force were also included. Results: Significant cross-level interactions were detected for four of the five outcomes. Specifically, the protective effects of living in a community with higher economic development on MD symptoms, and in a community with lower disaster-related exposure on alcohol abuse, perception drug abuse, and perceived mental health needs were only evident for participants who did not experience disaster-related stressors. Conclusions: The results suggest that what we consider protective at the community-level might not hold for survivors who have experienced disaster-related stressors, and the need for expanded access to post-disaster mental health services.

Symposium
Friday, November 6
4:15 p.m. to 5:30 p.m.
Salon E – Military Track

Effectiveness of Prolonged Exposure for Comorbid PTSD and Traumatic Brain Injury
(Clin Res, Acc/Inj-Clinical Practice-Mil/Vets, Adult, M, Industrialized)

Dillon, Kirsten, PhD Candidate1; Rauch, Sheila, PhD, ABPP2
1Durham VA Medical Center, Durham, North Carolina, USA
2University of Michigan / VA Healthcare System, Ann Arbor, Michigan, USA

Posttraumatic stress disorder (PTSD) and traumatic brain injuries (TBI) are often referred to as “signature injuries” sustained in the wars of Iraq and Afghanistan, and mental health professionals in the Department of Veteran Affairs frequently encounter comorbid PTSD/TBI (Taylor et al., 2012). Prolonged Exposure (PE) is a first line intervention for comorbid PTSD/TBI (VA/DoD practice guidelines, 2009) yet, it is unclear how routinely PE is implemented in polytrauma clinics (Cook et al., 2013). One limiting factor may be TBI severity and associated neurobehavioral symptoms. Providers may hesitate to initiate PE due to concerns that cognitive limitations or other TBI-related sequelae may serve as contraindications (Elder, Mitsis, Ahlers, & Cristian, 2010). This symposium will present PE effectiveness data for veterans diagnosed with PTSD & TBI from two VA Medical Centers (n=69). Results demonstrated significant improvement in PTSD and depression, irrespective of TBI severity or treatment setting. The relationship between PTSD and post-concussive symptoms (PCS) was also examined and PE led to significant improvements in PCS over the course of treatment. Finally, results suggest that, among this complex population, therapist experience leads to better outcomes and level of service-connection is negatively associated with recovery.

Effectiveness of Prolonged Exposure Therapy with Veterans Diagnosed with PTSD and Traumatic Brain Injury

Wolf, Gregory, PsyD1; Crawford, Eric, PhD2; Vanderploeg, Rodney, PhD, ABPP3; Kretzmer, Tracy, PhD, Wagner, D. Ryan, PhD4
1Department of Veterans Affairs Medical Center, Tampa, FL, Florida, USA
2Department of Veterans Affairs, VISN 6 MIRECC & Duke University, Durham, North Carolina, USA
3James A. Haley VA Medical Center, Tampa, Florida, USA
4Duke University Medical Center/Durham VAMC, Durham, North Carolina, USA

The presentation will review the effectiveness of Prolonged Exposure (PE) for PTSD with OEF/OIF veterans with histories of mild to severe traumatic brain injury (TBI) presenting for mental health treatment at two VA medical centers. The study involved post hoc analysis of archival clinical data of veterans
and active duty personnel presenting to two Department of Veteran Affairs medical centers for mental health treatment. Symptoms were assessed with self-report measures of PTSD (PTSD Checklist) and depression (Beck Depression Inventory II) throughout treatment. Mixed linear models were utilized to determine the impact of PE on the slope of reported symptoms throughout treatment, and the effects associated with fixed factors such as site, treatment setting (residential vs. outpatient), and TBI severity. Results demonstrated significant decreases in PTSD, $b = -3.00$, 95% CI [-3.22, -.78]; $t(210) = -13.5$, $p < .001$, and in depressive symptoms, $b = -1.46$, 95% CI [-1.64, -.18]; $t(192) = -8.32$, $p < .001$. The effects of PE were not limited by TBI severity or clinical setting. The results provide evidence for the effectiveness of PE for veterans with PTSD and TBI. Findings will be used to inform clinical practice and demonstrate PE is a safe and effective treatment for this population despite concerns that TBI severity may serve as a contraindication or impede treatment response.


Crawford, Eric, PhD; Vanderploeg, Rodney, PhD, ABPP; Wolf, Gregory, PsyD; Kretzmer, Tracy, PhD

1Department of Veteran Affairs, VISN 6 MIRECC & Duke University, Durham, North Carolina, USA
2Department of Veteran Affairs, VISN 6 MIRECC & Duke University, Durham, North Carolina, USA
3Department of Veteran Affairs Medical Center, Tampa, Florida, USA

Veterans with traumatic brain injury (TBI) tend to report more neurobehavorial symptoms (NBS) than soldiers with other injuries (Hoge, Terhakopian, Castro, Messer, & Engel, 2007). A number of studies have shown a majority of variance associated with chronic NBS is attributable to PTSD and depression, rather than historical TBI (Hoge, et al., 2008; Polusny et al. 2011; Pietrzak, 2009; Vanderploeg, Belanger, & Curtiss, 2009). The present study examined the impact of prolonged exposure (PE) on NBS during treatment. All participants had a diagnosis of PTSD and a documented history of mild to severe TBI with significant NBS (N=44). Repeated measures ANOVAs were conducted to examine change in NBS complaints and functionality as measured by the Neurobehavioral Symptom Inventory and the Key Behaviors Change Inventory. PE resulted in significant reduction in NBS (Mild TBI, $d = -1.13$; Moderate to Severe TBI, $d = -1.49$). Positive effects were also seen for day-to-day functional behaviors associated with TBI, including self-reported executive and memory function, inattention, impulsivity, somatic complaints, and interpersonal functioning ($d's = .70 - 1.46$). Importantly, veterans experienced a substantial increase in their perceived ability to manage their symptoms (self-efficacy) ($d = 2.03$) at post-treatment as well. Implications for clinical practice and models of care will be discussed.

Predictors of Clinically Significant Improvement in Brain-Injured Veterans Receiving Prolonged Exposure Therapy for PTSD

(Clin Res, Acc/Inj-Clinical Practice, Adult, M, Industrialized)

Dillon, Kirsten, PhD Candidate; Crawford, Eric, PhD; Wolf, Gregory, PsyD; Kretzmer, Tracy, PhD; Vanderploeg, Rodney, PhD, ABPP

1Durham VA Medical Center, Durham, North Carolina, USA
2Department of Veteran Affairs, VISN 6 MIRECC & Duke University, Durham, North Carolina, USA
3Department of Veteran Affairs Medical Center, Tampa, FL, Florida, USA
4James A. Haley VA Medical Center, Tampa, Florida, USA

The current study examined the effects of therapist experience and service-connection status on clinically significant improvement among veterans with TBI and PTSD who received prolonged exposure (PE) treatment (N = 69). Clinically significant improvement on the PTSD Checklist was operationalized using criterion scores outlined in previous PTSD research (Foa, Zollner, Feeny, Hembree, & Alvarez-Conrad, 2002; Jacobson & Traux, 1991). A hierarchical logistic regression model was constructed with number of sessions, therapist experience with PE, and total service-connection % added sequentially as predictors of clinically significant change. In the first step, dose of treatment was a significant predictor, $\beta = .29$, $SE = .08$, OR = 1.34, $p < .001$; Nagelkerke $R^2 = .33$. The addition of therapist experience accounted for more variance explained ($R^2 = .13$) and the adjusted odds ratio (AOR = 3.12) indicated that increased experience was associated with increased likelihood of clinical improvement, $\beta = 1.14$, $p = .006$. Adding total service-connection accounted for additional variance explained ($R^2 = .11$), and all three variables remained unique predictors of outcome: PE sessions: $\beta = .28$, $SE = .82$, AOR = 1.32, $p < .001$; therapist experience: $\beta = .87$, $SE = .43$, AOR = 2.38 $p = .042$; service connection: $\beta = .03$, $SE = .01$, AOR = .97 $p = .007$. Clinical implications will be discussed.
Neuro Track Paper Session One
Friday, November 6
4:15 p.m. to 5:30 p.m.
Salon F-H – Neuro Track

Treatment-Related Functional Orbitofrontal Network Alterations in Veterans with Posttraumatic Stress Disorder

Kennis, Mitzy, MSc1; van Rooij, Sanne, PhD2; Van den Heuvel, Martijn, PhD3; Kahn, Rene, PhD; Geuze, Elbert, PhD2
1Military Mental Health Research/UMC Utrecht, Utrecht, Netherlands
2Emory University, Atlanta, Georgia, USA
3UMC Utrecht, Utrecht, Netherlands

Posttraumatic stress disorder (PTSD) can be treated with trauma-focused therapy. However, only half of the patients recover after treatment. Therefore, it is important to study the neurobiology of treatment of PTSD. Here, resting state functional magnetic resonance images were obtained from male veterans with PTSD (n=50) and male controls (n=54) in a longitudinal design to investigate treatment effects on functional network topology properties. After trauma-focused therapy PTSD patients were subdivided in a persistent (n=22) and remitted PTSD group (n=17) based on diagnosis, and compared with combat controls (n=22). Prior to treatment, reduced orbitofrontal cortex network properties were observed in PTSD patients versus controls. Trauma-focused therapy modulated orbitofrontal cortex network properties in all PTSD patients versus combat controls. In persistent PTSD patients normalization orbitofrontal cortex network properties to the levels of combat controls was found, which was correlated with symptom improvement. These data suggest that trauma-focused therapy affects the orbitofrontal network as a part of the therapeutic response in PTSD. This study provides first steps in better understanding the neurobiology of PTSD treatment, and identifying pre-treatment alterations that are modulated during treatment can help to develop targeted treatment strategies.

Realtime Amygdala fMRI Biofeedback During Script Driven Imagery: A Pilot Study
(Clin Res, Bio/Int-Res Meth-Neuro, Adult, M, Industrialized)

Fichtenholtz, Harlan, PhD1; Gerin, Mattia, BA2; Roy, Alicia, BA1; Southwick, Steven, MD; Hampson, Michelle, PhD2
1VA Connecticut Healthcare System and Yale University, West Haven, Connecticut, USA
2Yale School of Medicine, New Haven, Connecticut, USA
3National Center for PTSD Clinical Neurosciences Division/Yale University Dept. of Psychiatry, West Haven, Connecticut, USA

Emotional functioning disturbances are at the center of posttraumatic stress disorder (PTSD), a disorder that can severely disrupt patients and psychosocial functioning. One mechanism that may lead to changes in emotional functioning is abnormal amygdala responding. Amygdala hyperactivity is a commonly seen in response to emotional stimuli in individuals with PTSD. Recently, several studies have demonstrated the ability for individuals to control the fMRI response of numerous brain areas (including the amygdala; Zotev et al., 2011) in real time. Additionally, real time fMRI biofeedback has been shown to improve symptoms in patients with OCD (Scheinost et al, 2013), and Parkinson’s Disease (Subramanian et al., 2011). In the current study, individuals with PTSD were presented with auditory individualized trauma scripts and a visual indicator of amygdala activation. During the task, participants were asked at times to allow the amygdala activation to respond naturally and at other times to attempt to reduce the activation as much as possible, using the feedback as a training signal. PTSD symptoms (CAPS) were assessed at baseline and after a series of 3-4 sessions of fMRI biofeedback training. The first 3 pilot participants responded well to the intervention, showing reductions in CAPS scores of 22, 37, and 18.

(Clin Res, CPA-Fam/Int-Neglect-Neuro, Lifespan, M, Industrialized)

van den Berg, Lisa, PhD Candidate1; Tollenaar, Marieke, PhD2; Bakermans-Kranenburg, Marjan, PhD; Van Ijzendoorn, Marinus, PhD; Alink, Lenneke, PhD; Elzinga, Bernet, PhD2
1University of Leiden, Faculty of Social and Behavioural Sciences; Psychology, Leiden, Zuid-Holland, Netherlands
2Leiden University, Leiden, Netherlands
3University of Leiden, Leiden, Zuid-Holland, Netherlands

Childhood parental emotional maltreatment (CEM) has profound and enduring effects on emotional functioning, and maltreated individuals may become hypersensitive to social exclusion. Recent studies found that social exclusion is associated with activity in the medial prefrontal cortex, anterior cingulate cortex and insula, and a positive association has been found between severity of CEM and increased medial prefrontal cortex responsivity to social exclusion. Furthermore, about 30% of maltreated individuals will maltreat their own children, and an enhanced sensitivity and reactivity to social exclusion may potentially play a role in the intergenerational transmission of abuse. To investigate whether parents with a history of abuse who transmitted the abuse react differently in terms of neural and cognitive/emotional responses to social exclusion (in general and by own child) we are currently conducting a large 2-generation study in relatives with a reported history of abuse and their children using a personalized version of the Cyberball task (n=105, inclusion still ongoing). In my presentation, I will present results on the different patterns of emotional and brain reactivity during social exclusion (by own child/parent versus strangers) between individuals who did vs who did not experience abuse and between people who transmitted abuse vs those who did not.
The Effect of Parental Loss on Cognitive and Affective Interference in Adolescent Boys From a Post-Conflict Region
(Res Meth, Anx-CSA-Depr-Neuro, Child/Adol, A, E & S Africa)

Mueller, Sven, PhD
Ghent University, Ghent, Flanders, Belgium

Little is known about the impact of early-life stressors such as parental loss on cognitive-affective processing during adolescence, especially in regions chronically affected by war and armed conflict. The objective of this study was to examine the role of parental loss on cognitive and affective control in a war-affected region. Here, we tested 72 male adolescents living in Northern Uganda (ages 14-19), 52 of whom still had both of their parents and 20 participants who had experienced parental loss. Participants completed a classic color-naming Stroop task as well as an affective interference task, the opposite emotions test (OET). Adolescents with parental loss showed a decrease in performance over time, especially on the Stroop task. Critically, this decrement in performance was positively associated with reported symptoms of trauma, but only in the parental loss group. The current data suggest a difficulty in maintaining cognitive control performance in youths with experience of parental loss. The findings are discussed in relation to traumatic stress and mental health in post-conflict regions.

Panel Presentation
Friday, November 6
4:15 p.m. to 5:30 p.m.
Balcony J-K – Assessment and Diagnosis Track

Stockholm Syndrome: A Survivor-Based Critique and Call for a New Framework
(Journalism and Trauma, Complex-Journalism-Social, Prof, M, Industrialized)

Judge, Abigail, PhD¹; Dugard, Jaycee²; Bailey, Rebecca, PhD³
¹Harvard Medical School, Cambridge, Massachusetts, USA
²JAYC Foundation, Los Angeles, California, USA
³Transitioning Families, Glen Ellen, California, USA

In this panel, we present a survivor-informed critique of Stockholm syndrome (SS) and propose an alternative framework. The phenomenon of survivors developing emotional bonds with their abusers has been observed in many contexts although there is limited research on how this occurs (Reid et al., 2013). The most commonly cited explanation is SS, a term coined to describe the “positive bond” between hostages and captors (Bejerot, 1974). Ever since, SS has been applied to other situations involving interpersonal violence (Adorjan et al., 2012; APA, 2014; Graham, 1994; Julich, 2005). Despite its widespread use, SS lacks empirical support and does not comport with current research on post-traumatic adaptation (Namnyak et al., 2008). The term’s expansion raises questions about its parsimony, validity and continued relevance. Another limitation of SS that has received scant scholarly attention is insensitivity to survivor experience: the conflation of case dynamics among survivor groups, emphasizing a positive bond rather than adaptation, and the implication of survivor culpability. Accordingly, two psychologists have partnered with a survivor of child abduction to critically review the concept and propose a novel framework: adaptation processes. Clinical, research and forensic implications will be discussed, as well as considerations for the media coverage of major traumas.
Gaucho Strong! Roads to Recovery following the Isla Vista Tragedy
(Practice, Acute, Adult, M, Industrialized)

Felix, Erika, PhD
University of California, Santa Barbara, Santa Barbara, California, USA

On May 23, 2014, a young man murdered six students from the University of California at Santa Barbara (UCSB) and wounded over a dozen others, across multiple crime scenes, before killing himself. This tragedy occurred shortly before final exams and graduation, which compounded student distress. This symposium integrates practice and research perspectives in order to help other universities prepare and respond to tragedy when it occurs. We describe the crisis response services, which extended beyond traditional mental health supports, the long-term recovery activities provided by the university, and community-mobilization in the form of a Compassion Center. In addition, findings from two applied research studies that have pre-tragedy data on samples of UCSB students will be shared. One study explores changes in psychosocial adjustment from pre- to post-event, and factors associated with accessing counseling services. Students share about the supportive services and remembrance events in which they participated and what was most helpful. In a second study, the relationship of active and passive media exposure to posttraumatic stress was examined. Lessons learned along with practical implications and recommendations will be discussed.

Mobilizing a Trauma Informed Community-Wide Response to a Mass Murder
(Commun, Commun-Comm/Vio, Lifespan, M, N/A)

Reyes, Gilbert, PhD
Fielding Graduate University, Santa Barbara, California, USA

This extremely violent crime took place in an unincorporated community adjacent to the University of California at Santa Barbara campus that has no municipal government. The university provided psychological services on campus, but the community where the crime occurred has no local facilities for providing mental health or crisis intervention services. In cooperation with the county government and UCSB, a local non-profit organization, the Santa Barbara Response Network, mobilized a response modeled after the approaches used in disasters and other potential traumatic events. Given a need to innovate, this project established a series of “compassion centers” and mobilized volunteers trained in psychological first aid to perform community outreach. This model was widely considered effective and has since been employed by local school systems in responding to student deaths. The elements of this Compassion Center Model will be described across a series of incidents starting with the UCSB student murders.

Student Voices On Healing and Recovery Following Tragedy
(Clin Res, Acute, Adult, M, Industrialized)

Felix, Erika, PhD
University of California, Santa Barbara, Santa Barbara, California, USA

Students have a unique perspective on recovery post-tragedy that can help universities prepare and respond to crisis events. Students who participated in a study of college adjustment the year prior to the mass murder were recontacted following the tragedy and provided information on their current psychosocial adjustment, services they accessed post-tragedy, and the helpfulness of services. A significant proportion of students knew someone who was killed (28.8%) or injured (24.8%). Post-tragedy, 52.2% participated in class discussions of the event, 27.2% spoke with professors, and 11.7% accessed drop-in counseling services. They rated the student-organized remembrance events as most helpful. Exploration of changes in adjustment over two (N=135; pre1, post) or three time points (N=77; pre1, pre2, post) revealed similar results. General self-efficacy remained stable, whereas symptoms of anxiety and depression increased following the tragedy, due in part to perceived resource loss related to the events (F (2, 63)=9.12, p=.003). Students who did or did not seek counseling were compared on a number of indicators (exposure, prior psychosocial adjustment, and perceived mental health stigma). Students with greater objective exposure and with more intrusion and hyperarousal symptoms were more likely to seek counseling. Implications for response and recovery efforts will be discussed.

Media Use after Mass Murder on a College Campus: A Prospective Study of Post-Traumatic Stress Symptoms
(Commun, Acute-Comm/Vio-Media, Adult, M, Industrialized)

Kia-Keating, Maryam, PhD; Liu, Sabrina, Doctoral Student; Modir, Sheila, MSW
University of California, Santa Barbara, Santa Barbara, California, USA

Some studies have suggested that media exposure after mass trauma increases risk for negative long-term health and mental health outcomes. Less understood about the differential role of types of media, particularly among younger populations whose online use may warrant unique consideration. In the current study, we surveyed a sample of 95 undergraduates before and after a mass murder at their university. We took into consideration participants’ use of media either passively (by just tuning in) or actively (by participating in online discussions) or more directly, engaging in in-person conversations in the week following the event. Analyses demonstrated that, after controlling for gender and baseline trauma symptoms, post-traumatic stress symptoms after the murders were predicted by trauma exposure, participation in online discussions, and time spent thinking about the tragedy. The final model explained 38% of the variance of participants’ post-traumatic stress symptoms following the murders (F(7, 85)=7.445, p=.000). Notably, amount of passive
daily media viewing (e.g., television, radio, and social media) and in-person discussions were not significant. Clinical implications for practitioners providing interventions in the context of mass trauma will be discussed, with particular attention to the role of online response. Future directions will be presented.

Pathways to Healing: How Campus Partners Can Respond to a Massacre in Your Community
(Practice, Acute, Adult, M, Industrialized)

Honegger, Turi, PhD; Felix, Erika, PhD
University of California, Santa Barbara, Santa Barbara, California, USA

Along with Administrative Services, the Division of Student Affairs at UCSB provided a coordinated initial response to the massacre that included crisis counseling services, psychoeducational supports, memorial activities, and accommodations from academic departments. The response was able to be implemented immediately due to well-developed prior collaborative team relationships. A mutual aid system was developed among University of California Counseling and Psychological Services’ psychologists to address the ongoing need for mental health services. Student Affairs and Human Resources collaborated to implement an ongoing program, Pathways to Healing, which included a range of workshops and other activities for students, faculty, and staff designed to promote awareness and self-care. This presentation will review the preparation, response, and long-term recovery efforts to provide other campuses with tools for their own planning and development. In addition, we will examine the effects of the anniversary of the tragedy on the community and the effectiveness of the adjustments in service to the community. We will also discuss the challenges we faced in the initial and ongoing response and the “lessons learned.” Written materials that were disseminated to the campus community will be shared as well.

Panel Presentation
Friday, November 6
4:15 p.m. to 5:30 p.m.
Carondelet – Student Section

How to Submit a Graduate or Early Career Award: What You Need to Know About NIH and VA Grants
(Train/Ed/Dis, Train/Ed/Dis, Prof, I, Industrialized)

Wells, Stephanie, BA1; Luciano, Matthew, BA2; Vogt, Dawne, PhD3; Koenen, Karestan, PhD4; Gutner, Cassidy, PhD5; Thorp, Steven, PhD6

1UCSD/SDSU Joint Doctoral Program in Clinical Psychology, San Diego, California, USA
2The University of Memphis, Memphis, Tennessee, USA
3National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
4Columbia University, New York, New York, USA
5National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
6VA San Diego Healthcare System / UCSD, San Diego, California, USA

The grant application process can be unclear and overwhelming for individuals who are submitting a grant for the first time, such as graduate students and early career professionals. Obtaining a training grant (e.g., NIH K and F-31 awards, VA CDA award) can provide graduate students and early career professionals with the opportunity to begin an independent research career. Many individuals do not receive direct mentorship in grant writing during graduate school or in their professional work environment. The proposed panel will bring together four psychologists to answer questions about the grant submission process specific to student and early career professional conference attendees. Panelists are either training award recipients or mentors on training grants. The four panelists will represent the NIH F-31 and K award and the VA CDA award. The panelists will focus on providing insight into what to consider when applying for a grant, which funding agency to apply to, strategies to effectively write a training grant, how to identify mentors, and other lessons learned from their experiences. Additionally, other relevant topics will be discussed, such as the pros/cons of becoming a project coordinator versus obtaining an early career grant.
Saturday, November 7
Concurrent Session 9

Keynote Address
Saturday, November 7
8:30 a.m. to 9:45 a.m.
Acadia

Neurobiology of Early Life Trauma and Attachment
(Bio Med, CPA, Lifespan, I, N/A)

Sullivan, Regina, PhD
Nathan Kline Institute, NYU School of Medicine, New York, New York, USA

In many mammalian species, including humans and rodents, the caregiver regulates the infant brain to alter behavior and facilitate attachment to the caregiver. Here we use rodent mother-infant interactions to illustrate maternal influence over pup brain activity using three ecologically relevant examples of how the attachment figure defines brain activity and behavior. First, we present data illustrating how the mother's social buffering of her pups' stress response during odor-pain learning blocks amygdala-dependent fear learning, dopamine inhibition and related gene expression to permit attachment learning. Second, we show pups' social referencing of the mother's fear response override social buffering to permit pups to learn fear in her presence. Pups learn a specific amygdala-dependent fear odor controlled by the fearful mother's ability to increase pups' corticosterone. Third, we show how maternal control of pups' brain occurs during typical interactions. Using local field potentials, we show that the mother's presence increases pups' cortical and amygdala synchronization. Early life abuse/trauma compromises the mother's ability to control the infant brain and adult depressive-like behavior. For all examples, maternal control of the brain decreases as pups approach independence, although this is compromised with early life abuse.
Child Abuse and its Cognitive Consequences

Child abuse poses a risk to the mental health of children and may also affect cognitive functioning. However, it has been argued that effects are less harmful within societies in which mild and moderate forms of abuse, including harsh disciplinary methods, are legal and commonly regarded as effective. The present study investigated the impact of child abuse on internalizing problems, working memory and school performance in a sample of Tanzanian primary school students. The 409 children (52% boys) had a mean age of 10.5 years. Using structural equation modeling, we found a strong relationship was found between child abuse and internalizing problems (β = .51), which were in turn related to working memory capacity (β = .15) and school performance (β = -.15). Our model showed a good model fit (SRMR = .039, RMSEA = .028, CFI = .985). Thus, in a society in which harsh disciplinary measures are common, the extent of child abuse is associated with poor mental health and impaired cognitive functioning via internalizing problems. Our findings emphasize the need to inform the population at large about the adverse consequences associated with various, even mild forms of child abuse.

Child Abuse Relates to Internalizing Problems and Cognitive Functioning: Findings from School Children in Tanzania

Identifying, Understanding, and Treating the Cognitive Consequences of Childhood Maltreatment

Two clinician researchers will present findings on the deleterious association between maltreatment and academic performance in a population of Tasmanian school children (n = 409) and in a US community sample of emerging adults (n = 560 IQ; n = 74 CANTAB). A neuroimaging researcher will show the interrelationship between maltreatment and alterations in brain network architecture and cognitive performance (n = 263). A second neuroimaging researcher will present data on the beneficial effects of mindfulness-based stress reduction on hippocampal-mediated cognitive performance and hippocampal subfield volume in a sample of maltreated young adults (n = 40). Overall, the symposium will provide new data on clinical consequences, neurobiological correlates and a potential therapeutic intervention for cognitive consequences of exposure to childhood traumatic stress.

Childhood Maltreatment and Neurocognitive Functioning in Late Adolescence

Introduction: Early life trauma alters trajectories of brain development and potentially impairs cognitive performance. We assessed the relationship between type and timing of maltreatment on neurocognitive performance. Methods: The MACE scale was used to collect retrospective information on exposure to 10 types of maltreatment in 560 participants (18-25 years). IQ was assessed using KBIT-II. Neurocognitive performance was assessed using CANTAB in a subsample of 74 (21M/53F) participants 18-19-years-old. Data were analyzed using multiple regression and predictive analytics. Results: Multiplicity of exposure was associated with impairments in executive functioning and planning on the Stockings of Cambridge and IntraExtra Dimensional Set Shifting tasks as well as decision-making and response control on the Cambridge Gambling Task. Exposure to specific types of abuse at specific ages were more important predictors than number of types of maltreatment. Deficits in nonverbal IQ were associated with exposure to peer emotional abuse at age 18, while verbal IQ was most strongly predicted by early witnessing of interparental violence and parental verbal abuse at age 13. Conclusion: Maltreatment during sensitive exposure periods was associated with executive function, decision-making and IQ deficits, which may place these emerging adults at increased risk for substance abuse.

Altered Global Brain Network Architecture in Childhood Maltreatment and its Association to Cognitive Function
A primary mindfulness intervention could increase hippocampal volume and waitlist control group. Functional connectivity in the mindfulness group compared to the performance in the memory task. MRI revealed increased volume symptoms and perceived stress, as well as enhanced mindfulness group had significant reduction in depression closely linked to the activation of the dentate gyrus.

**Mindfulness Based Intervention for Young Adults with Childhood Maltreatment Influences Hippocampal Structure and Memory Function**


**Yan, Diane, PhD**; Khan, Alaptagin, MD; Lazar, Saar, PhD; Teicher, Martin, MD, PhD

1. Massachusetts General Hospital, Charlestown, Massachusetts, USA
2. McLean Hospital, Harvard Medical School, Belmont, Massachusetts, USA

Objective: Previous studies showed decreased hippocampal volumes and deficit in episodic memory associated with childhood maltreatment, while mindfulness could increase hippocampal volumes, with adaptive influence on episodic memory. Thus we aimed to investigate such neurocognitive effects of mindfulness based intervention for young adults with childhood maltreatment. Methods: We recruited 40 subjects with childhood trauma, half of which were assigned to the mindfulness intervention while the other half served as a waitlist control. An eight-week mindfulness program was given to these subjects. MRI and questionnaires were administered before and after the 8-week intervention, as well as an episodic memory task, which has been shown to be closely linked to the activation of the dentate gyrus. Results: The mindfulness group had significant reduction in depression symptoms and perceived stress, as well as enhanced performance in the memory task. MRI revealed increased volume of hippocampal subfields and decreased amygdala-hippocampal functional connectivity in the mindfulness group compared to the waitlist control group. Conclusions: These results suggest that mindfulness intervention could increase hippocampal volume and function, which shall be further validated with a randomized controlled trial with an active control group.

**Symposium**

Saturday, November 7
8:30 a.m. to 9:45 a.m.
Galerie 3 – Affective Processes/Interventions

**Extinction Mechanisms in Treatment of PTSD**

_(Clin Res, Affect/Int, Adult, M, Industrialized)_

Bedard-Gilligan, Michele, PhD; Rauch, Sheila, PhD, ABPP

1. University of Washington, Seattle, Washington, USA
2. University of Michigan / VA Healthcare System, Ann Arbor, Michigan, USA

Exposure therapies, based on principles of extinction learning, are consistently found to be efficacious for PTSD (Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010). In exposure therapy, extinction occurs through repeated presentation of trauma related cues in the absence of danger, resulting in decreased fear responses. Research on extinction as a mechanism of PTSD recovery can help us better understand how our treatments work and for whom, and can ultimately improve our interventions. These three talks will present data on extinction processes during PTSD treatment. The first presentation by Michele Bedard-Gilligan, Ph.D. explores trauma severity as a predictor of extinction learning in a mixed trauma sample receiving prolonged exposure for chronic PTSD. Peter Tuerk, Ph.D. will then present findings from a double-blind placebo controlled trial of yohimbine HCl combined with prolonged exposure, comparing combat veterans on heart-rate reactivity and self-report symptoms post treatment. Our third presenter, Seth Norholm, Ph.D., will present findings on OEF/OIF veterans undergoing virtual reality therapy combined with D-cycloserine on startle responding, self-report, and clinician rated PTSD symptoms. Discussant Sheila Rauch, Ph.D. will discuss findings in relationship to theories of PTSD, translational science on extinction, and treatment implications for PTSD.

**Frequency of Prior Trauma and between-Session Fear Extinction during Prolonged Exposure for PTSD**

_(Clin Res, Affect/Int, Adult, M, Industrialized)_

Bedard-Gilligan, Michele, PhD; Jerud, Alissa, MS, PhD Student; Farach, Frank, PhD; Smith, Hillary, BA/BS; Zoellner, Lori, PhD; Feeny, Norah, PhD

1. University of Washington, Seattle, Washington, USA
2. Case Western Reserve University, Cleveland, Ohio, USA

Individuals with extensive trauma show decreased startle potentiation to idiosyncratic trauma scripts compared to those with discrete trauma histories (McTeague et al., 2010). It is posited that this pattern of fear responding may interfere with extinction-based treatments for PTSD (Lang & McTeague, 2011). This study examined whether greater trauma exposure predicts decreased change in subjective units of distress (SUDS), one indicator of fear extinction, and PTSD severity, across sessions of prolonged exposure (PE). Patients with chronic PTSD (N = 116) received up to 10 PE sessions. In-session imaginal exposure SUDS were assessed every 5 mins, and mean and peak SUDS for each session were computed. Linear mixed models were used to evaluate the
association between trauma frequency and the slope of SUDs across sessions. Both mean and peak SUDs decreased over imaginal exposure (Sessions 3-10). However, neither trauma frequency nor the trauma frequency by session interaction were significant for SUDs, suggesting that higher trauma exposure was not reliably associated with change in SUDs between sessions. Further, trauma history did not significantly predict post-treatment PTSD severity, controlling for pre-treatment PTSD symptoms. These findings suggest that patients with multiple traumas do not show impaired extinction as theorized, and they benefit similarly from PE.

Extinction Enhancement with Yohimbine HCl: Preliminary Findings from a Double-Blind Placebo Controlled Trial
(Clin Res, Anx-Cog/Int-Res Meth-Mil/Vets, Adult, M, N/A)

Tuerk, Peter, PhD1; Wangelin, Bethany, PhD1; Hammer, Mark, MD1; Foa, Edna, PhD2; Powers, Mark, PhD2; Niepoth, Bridgette, MS1
1Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA
2University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
3Southern Methodist University, Dallas, Texas, USA

We present preliminary findings from a randomized double-blind placebo controlled trial investigating extinction enhancement in Prolonged Exposure (PE) for PTSD with yohimbine HCl, an alpha-2 adrenergic receptor antagonist. The sample consists of 25 combat veterans with CAPS-rated PTSD. The translational research objective is supported by animal models indicating extinction enhancement with the drug and by supporting studies examining yohimbine in exposure therapy for specific phobias. As hypothesized, results revealed a statistically significant benefit in the yohimbine arm for: 1) objectively-measured heart-rate reactivity to script-driven imagery (primary outcome), 2) self-reported PCL scores, and 3) subjective units of distress (SUDs) outcomes for treatment responders. Likewise, as expected, there was a significant disadvantage for the yohimbine group among treatment non-responders. These findings are in line with a growing body of literature demonstrating potential advantages of extinction augmentation with pharmacological agents for treatment responders, and no advantage, or a significant disadvantage for non-responders. Strengths of the study include a randomized controlled design and an objectively measured primary outcome. Even so, findings must be cushioned in terms of the small N for testing interactions, thus outcomes are not definitive and require additional study.

Psychophysiological Indices of PTSD Symptom Severity and Response to Virtual Reality-Based Prolonged Exposure Therapy

Norrholm, Seth, PhD2; Price, Matthew, PhD2; Jovanovic, Tanja, PhD2; Ressler, Kerry, MD, PhD2; Bradley, Behk, PhD1; Rothbaum, Barbara, PhD, ABPP3
1Atlanta VAMC/Emory University, Decatur, Georgia, USA
2University of Vermont, Burlington, Vermont, USA
3Emory University School of Medicine, Atlanta, Georgia, USA

Our group has embarked on a program of studies examining the utility of psychophysiological measures (e.g., acoustic startle response) as within-treatment indicators of PTSD symptom severity and as predictors of virtual reality (VR)-based prolonged exposure treatment outcome. As part of this program, one cohort of OEF/OIF veterans with PTSD, underwent an established fear-potentiated startle paradigm. A separate cohort of veterans with PTSD underwent 6 weeks of VR exposure therapy combined with either D-cycloserine (DCS), alprazolam (ALP), or placebo (PBO) and were then assessed pre- and post-treatment and at 6 months. Startle response, self-report measures, and clinician-rated measures were assessed while viewing and following presentation of combat-related VR scenes. In the first cohort, PTSD symptom severity was associated with impaired extinction learning as indicated by persistent fear responses. In the DCS group of the second cohort, startle response to VR scenes before treatment accounted for 76% of the variance in Clinician Administered PTSD Scale (CAPS) change scores in that higher responses predicted greater changes in symptom severity. Outcome expectancy was unrelated to biological measures of treatment response. These findings suggest that psychophysiological responses may serve as objective indices of symptom severity and predictive biomarkers of treatment outcome.
Using Community Based Participatory Research Methodologies to Bridge Trauma-Informed Research, Policy and Clinical Practice with Latino Youth

(Ki a-Keating, Maryam, PhD; Adams, Jessica, PhD; Capous, Diana, MA, PhD Student)

1University of California, Santa Barbara, Santa Barbara, California, USA
2Child Abuse Listening and Mediation, Santa Barbara, California, USA

Community based participatory research (CBPR) is an innovative approach with vulnerable populations intended to increase engagement, include community perspectives, and improve the likelihood that health disparities are addressed in culturally meaningful and effective ways. Proyecto HEROES is an NICHD-funded academic-community partnership utilizing CBPR methods to address the impact of violence and trauma on Latino youth and develop community informed prevention programs. This workshop will provide both academic and community partner viewpoints. We will describe the CBPR approach, including effective and innovative ways to establish a strong academic-community partnership, assess community experiences of exposure to violence and trauma and local priorities, and develop collaborative ideas for culturally appropriate and trauma-informed programs. We will illustrate the challenges of CBPR and solutions, by providing specific strategies, including narrative examples from parent focus groups, and still image and video examples from youth photovoice (for all of which participants provided their consent). We will engage the audience in a critical examination of vulnerable populations will be discussed based on audience needs and priorities.

Workshop Presentation
Saturday, November 7
8:30 a.m. to 9:45 a.m.
Galerie 6 – Child Trauma Track

Symposium
Saturday, November 7
8:30 a.m. to 9:45 a.m.
Salon A-C – Bio-Med/Genetics Track

What Causes Posttraumatic Stress?:
Looking across Dimensions to Understand the Multi-causality of Stress Pathology
(Bio Med, Bio Med-Res Meth-Genetic-Neuro, Adult, I, N/A)

Shalev, Arieh, MD, PhD
New York University Langone Medical Center, New York, New York, USA

Post traumatic psychopathology (PTP) is the combined product of multiple causative factors. The latter extend from genetics and gene modification, to neurocircuits’ abnormalities, neuroendocrine reactions, trauma characteristics and prior, current and post-exposure environment. Those factors interact in complex ways and these interactions might differ from one individual to another. Only very recently, researchers only examined one or few dimensions of the complex etiology of PTP and only in relation to diagnostic entities. Researchers have begun to grapple with the complex, multimodal etiology of PTPs to improve our understanding of both generic and individualized causation. This symposium will illustrate ways in which these innovations improve our understanding of trauma and its aftermath. Researchers from diverse areas will share recent findings of the relationships between causative domains and discuss the important contribution of such knowledge to understanding, predicting and preventing post-traumatic morbidity.

Network Mechanisms of Cognitive Dysfunction in Post-Traumatic Stress Disorder

Elkin, Amit, MD, PhD
Stanford University/Palo Alto VA, Palo Alto, California, USA

Clinical and neuropsychological work has defined both subjective and objective deficits in cognition, which include impairments in processing speed, sustained attention and verbal learning and memory. The neural basis for these impairments, as well as the specific relationships between objective and subjective impairments remains unclear. Brain networks, such as those that underlie cognition, reflect a trade-off between how adaptive their topology is and the physical cost of the network. Specifically, a balance between segregation and integration is crucial; wherein segregation reflects the formation of strongly-coupled local network communities while integration facilitates global communication between network communities. Using resting-state fMRI to measure network segregation and integration we found that impairments in higher-level cognitive operations (i.e. memory) reflected both segregation and integration and related to subjective reports of cognitive dysfunction, while simpler specialized processing (i.e. reaction times in a simple task) related only to segregation and did not predict subjective cognitive symptoms. These findings establish a neural basis for cognitive dysfunction in PTSD and illustrate how disease-
related behavioral profiles arise from dissociable mechanisms at the level of neural circuit organization.

Using Machine Learning to Uncover Causal Pathways and Prediction of Non-remitting PTSD Based on Acute Neuroendocrine and Cognitive Responses to Trauma
(Bio Med, Acute-Prevent-Res Meth, Adult, I, Industrialized)

Galatzer-Levy, Isaac, PhD1; Shalev, Arieh, MD2
1New York University Langone Medical Center, New York, New York, USA
2Hadassah Hospital, Jerusalem, Jerusalem, Israel

Neuroendocrine, behavioral, and environmental dimensions interact in complex ways to alter the propensity for protracted post-traumatic responses. Traditional statistical modeling has limited ability to determine the causal effect and predictive utility of such multidimensional sources of information. Multimodal data including peripheral neuroendocrine markers were collected in the emergency room (ER) to 5 months after a traumatic event. Causal graph algorithms identified distinct pathways to non-remitting PTSD. The forecasting accuracy of this data across progressive time points was determined with Machine Learning forecasting methods. While multimodal data provided strong prediction of PTSD non-remission via recovery by one week (AUC=.88) and one month features (AUC=.95), neuroendocrinology contributed little to the predictive signal. However, neuroendocrinology in the ER was shown to have a key causal role in the development of non-remitting but only for the subset who reported early childhood trauma. Findings highlight the distinct tasks of identifying causal mechanisms and predictive signals in the context of posttraumatic stress.

Multiple Molecular Pathways to GABAergic Neuroactive Steroid Deficiency and Resulting Posttraumatic Conditions: Implications for Prevention and Treatment

Rasmussen, Ann, MD1; Pinna, Graziano, PhD2; Marx, Christine, MD3
1National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA
2University of Illinois Chicago, Chicago, Illinois, USA
3VA Medical Center, Durham, North Carolina, USA

There are multiple genetic, environmental, and sex-specific causes for deficiencies in the production of potent neuroactive steroids that facilitate the effects of gamma-amino-butyric acid (GABA) at GABAA receptors and thereby protect against the negative sequelae of extreme or chronic stress. Deficiencies in GABAergic neuroactive steroids have been related to a) multiple posttraumatic “disorders” (e.g., PTSD; depression; pain; traumatic brain injury; seizures; alcohol and tobacco abuse) and b) more fundamental “processes” related to resilience and recovery from emotional and physical trauma (e.g., regulation of the HPA axis; brain remyelination and neurogenesis; regulation of arousal; tolerance of stress, pain and withdrawal; extinction recall). Methods for detection of GABAergic neuroactive steroid deficiencies in blood, saliva and cerebrospinal fluid will be presented and development of possible individualized treatments for related posttraumatic conditions will be discussed.

The Retinoid-Related Orphan Receptor Alpha (RORA) Gene and Trajectories of Posttraumatic Stress: Main Effects and Interactions with Childhood Physical Abuse History
(Bio Med, CPA-Dev/Int-Pub Health-Genetic, Adult, I, Industrialized)

Low, Sarah, PhD1; Meyers, Jacquelyn, PhD2; Galea, Sandro, MD, DrPH3; Aiello, Allison, MS, PhD4; Uddin, Monica, PhD5; Wildman, Derek, PhD; Koenen, Karestan, PhD2
1Columbia University, Mailman School of Public Health, New York, New York, USA
2Columbia University, New York, New York, USA
3Boston University, Boston, Massachusetts, USA
4University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Chapel Hill, North Carolina, USA
5University of Illinois, Chicago, Illinois, USA

Objective: Longitudinal studies have documented environmental factors (e.g., child physical abuse history) as predictors of posttraumatic stress (PTS) trajectories. No published studies have explored genes or gene-by-environment interactions (GxEs) as predictors of PTS trajectories, however. We aimed to fill this gap. Methods: We examined associations between variants of the RORA gene and trajectory membership, and GxEs between RORA variants and child physical abuse history among a sample of predominantly non-Hispanic Black urban adults (N = 473). Results: The minor allele of the RORA SNP rs893290 was a significant predictor of membership in a trajectory of consistently high PTS, relatively to a trajectory of consistently low PTS. Additionally, the GxE of rs893290 with child physical abuse was significant, such that minor allele frequency was more strongly associated with membership in consistently high or decreasing PTS trajectories, relative to a consistently low PTS trajectory, among participants with higher levels of child physical abuse. Conclusions: The results provide preliminary evidence that variation in the RORA gene is associated with membership in trajectories of higher PTS and that associations are stronger among child physical abuse survivors. Replication and functional data are needed to further our understanding of how RORA relates to PTS trajectories.
Panel Presentation
Saturday, November 7
8:30 a.m. to 9:45 a.m.
Salon D – Public Health Track

Communities Healing and Transforming Trauma (CHATT): Development and Evaluation of a Speaker’s Bureau for Survivors of Violence
(Commun, Comm/Int-Comm/Vio-Pub Health-Social, Adult, M, Industrialized)

Fields, Laurie, PhD1; Valdez, Christine, PhD1; Shumway, Martha, PhD2; Murphy, Melissa, LCSW2; Richmond, Carla, LCSW3; Boccellari, Alicia, PhD1
1University of California, San Francisco, San Francisco, California, USA
2University of California, San Francisco - San Francisco General Hospital, San Francisco, California, USA

The consumer movement has generated an important paradigm shift towards empowerment of survivors. Among trauma survivors, finding meaning or purpose despite the suffering, or “survivor mission”, may include a call to social action, involvement in social justice activities, or public speaking. These aid survivors in re-connecting and accumulating restitutive emotional experiences for reparation of injuries and to promote further growth. This symposium presents 4 component projects in the development and evaluation of a speaker’s bureau starting with initial training followed by monthly work/support group meetings. The presentations demonstrate how a program can be developed, and address positive impacts and inherent challenges. The symposium is introduced with a brief natural history of CHATT illustrating the impetus and inspiration for its development. The first talk describes a comprehensive manualized training curriculum for new speakers, with evaluation data from 3 annual trainings conducted. Presentation two describes the unique structure of a speaking support group, where survivors practice talks, and address anxiety and safety in speaking. The third presentation provides longitudinal data on impacts to speakers, including posttraumatic growth, stigma, and self-efficacy. Presentation four provides data on impacts to audience members at venues CHATT speakers have addressed.

Panel Presentation
Saturday, November 7
8:30 a.m. to 9:45 a.m.
Salon E – Military Track

Posttraumatic Stress Disorder and its Relation to Long-Term Health Outcomes and Service Utilization among Vietnam Veterans: Implications for Clinical Practice and Policy
(Assess Dx, Clinical Practice-Health-Mil/Vets-Care, Adult, M, N/A)

Corry, Nida, PhD1; Mulvaney-Day, Norah, PhD2; Fairbank, John, PhD2; Marmar, Charles, MD2; deRoon-Cassini, Terri, PhD2; Schlenger, William, PhD2; Mauch, Danna, PhD2
1Abt Associates, Inc., Bethesda, Maryland, USA
2Abt Associates, Inc., Cambridge, Massachusetts, USA

This panel will highlight research findings on the long-term health impacts of Posttraumatic Stress Disorder (PTSD) and health care service utilization among Vietnam veterans, with a lens towards practice implications. The panel will present findings from the National Vietnam Veterans Longitudinal Study (Schlenger et al., in press) and other epidemiological studies showing that PTSD is associated with increased mortality and morbidity over time. Recommendations will be presented, focusing on methods to improve screening, intervention, and support services to identify and attenuate the effects of PTSD and comorbidities. The panel will also address veterans’ access to care in multiple care delivery systems (e.g., VA mental health, primary care). Particular consideration will be paid to how co-occurring chronic health conditions and substance use complicate both the clinical presentation of PTSD, as well as influence where veterans present for care. Strategies for enhancing access to PTSD care among veterans will be discussed, and issues in differential access to care will be considered across special populations, including aging, rural and female veterans. Finally, clinical models and program initiatives targeting increased access to behavioral health care and early identification and treatment of comorbidities for veterans will be identified.
Symposium
Saturday, November 7
8:30 a.m. to 9:45 a.m.
Salon F-H – Neuro Track

Biomarkers of Suicide in Trauma-Exposed Groups
(Bio Med, Bio Med-Genetic-Neuro, Adult, A, Industrialized)
Sadeh, Naomi, PhD1; Smith, Alicia, PhD2
1National Center for PTSD at VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA
2Emory University School of Medicine, Atlanta, Georgia, USA

Four researchers will present findings from studies examining biological measures of suicidal behavior and related processes in trauma-exposed veterans, community members, and patients. Biomarkers will span multiple levels of analysis and include genetic, epigenetic, and neuroimaging measures examined in living cohorts and postmortem brain tissue. The studies identify novel genetic and epigenetic biomarkers of suicide risk and suggest overlap in the biomarkers of suicidal behavior and PTSD.

Genetic and Epigenetic Markers of Suicidality: Findings from Army STARRS
(Bio Med, Mil/Vets-Genetic, Adult, A, Industrialized)
Stein, Murray, MD, MPH, FRCPCC; Mitchell, Colter, PhD2; Ware, Erin, PhD, MPH2; Chen, Chia-Yen, ScD, MS2; Heeringa, Steven, PhD3; Jain, Sonia, PhD4; Kessler, Ronald, PhD2; Nock, Matthew, PhD2; Smoller, Jordan, MD2; Ursano, Robert, MD4
1University of California, San Diego, La Jolla, California, USA
2University of Michigan, Ann Arbor, Michigan, USA
3Massachusetts General Hospital, Boston, Massachusetts, USA
4UC San Diego / VA San Diego Health Care System, La Jolla, California, USA
5Harvard Medical School, Boston, Massachusetts, USA
6Harvard, Cambridge, Massachusetts, USA
7Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
8Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA

Suicide is one of the most common causes of death among young adults, and it is of particular concern to the US military which has seen rates of suicide exceed those in the general population. Several prior studies have pointed to the possibility that there may be genetic risk factors for suicide, but very few studies have included relatively large, population-based samples and even fewer have focused on the military. Army STARRS is a study funded by the US Army and NIMH intended to discern risk factors for suicide and related mental health problems among soldiers. We present here results from genomewide association studies (GWAS) focused on suicidality (ideation and attempts) in Army STARRS. In addition to mental health surveys, participants in two studies (New Soldier Study [NNS], N ~ 8,000; and Pre-Post Deployment Study [PPDS], N ~ 8,000) gave blood for DNA. DNA was extracted and genotyped using an array-based system (Illumina OmniExpress + Exome) and data were QCed and imputed to 1,000 Genomes using standard methods. Subjects were phenotyped based on reporting of lifetime suicidal ideation and lifetime suicide attempt(s). P values of genomewide significance (p < 5 × 10−8) in either sample are reported, along with the corresponding p value in the other sample. Final analyses are currently being prepared and the full set of results will be presented at the meeting.

Molecular Biomarkers and Suicide Attempts in US Veterans
(Bio Med, Bio Med-Mil/Vets-Genetic, Adult, A, Industrialized)
Flory, Janine, PhD1; Hammamieh, Rasha, PhD2; Donohue, Duncan, PhD2; Yang, Ruoting, PhD4; Muhie, Seid, PhD2; Yehuda, Rachel, PhD1
1James J Peters VAMC/Mount Sinai School of Medicine, Bronx, New York, USA
2US Army Medical Research and Materiel Command, Ft. Detrick, Maryland, USA
3US Army Research Institute of Environmental Medicine, Ft Detrick, Maryland, USA
4National Institutes of Health, Bethesda, Maryland, USA

One out of five people in the United States who die from suicide have served in the military. Suicide attempts occur in the context of many different psychiatric disorders, including depression, substance use, psychosis and PTSD and are independent of any single disorder. Thus, it has been difficult to identify biological signals associated with suicide, versus the background of psychiatric symptoms. In this presentation, we will present molecular data, including DNA methylation, miRNA and gene expression to show differences in molecular pathways and networks between matched pairs of veterans who attempted suicide (1 or more lifetime attempts) from those who have never attempted. Seventeen matched pairs of veterans provided blood samples and completed a clinical interview to assess psychiatric history and suicide history, including lethality of attempts. The pairs were matched by age, gender and race/ethnicity. Results implicate glucocorticoid signaling and other pathways associated with trauma-related disorders. Future work is needed to validate the findings using a longitudinal approach to distinguish between trait versus state biomarkers of suicide, with the ultimate goal of identification of acute risk markers for suicide attempts.

Interaction of Trauma and SKA2 Epigenetic Variation Predicts HPA Axis Function, Suicide, and PTSD
(Bio Med, Assess Dx-Mil/Vets-Genetic, Adult, A, Industrialized)
Kaminsky, Zachary, PhD1; Quintiliano, Jerry, PhD1; Wilcox, Holly, PhD1; Eaton, William, PhD2; Payne, Jennifer, MD2; Houtepen, Lotte, PhD3; Vermetten, Eric, MD, PhD4; Geuze, Elbert, PhD5; Vinkers, Christiaan, PhD5; Ruten, Bart, PhD5; Boks, Marco, MD, PhD5; Smith, Alicia, PhD5
1Johns Hopkins University School of Medicine, Baltimore, Maryland, USA
2Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, USA
3Utrecht University, Utrecht, Netherlands
4Leiden University Medical Center, Leiden, ZH, Netherlands
5Military Mental Health Research/UMC Utrecht, Utrecht, Netherlands

Maastricht University, Maastricht, Netherlands

140 | Page  Presenters’ names are in bold.  Discussants’ names are underlined.  
Moderators’ names are in bold and underlined.  Guides to Keyword  
Abbreviations located on pages 2–3.  
Primary keyword, Secondary Keywords, Population type) Presentation Level – Region
Trauma results in HPA axis abnormalities and increased risk to suicidal behaviors and PTSD. We found SKA2 DNA methylation associations with suicidal behavior in three brain and three blood cohorts. Interaction of SKA2 with stress predicted suicidal behavior with ~80% accuracy. SKA2 is hypothesized to reduce suppression of cortisol following stress, which is of high relevance in traumatized populations. Our objective was to investigate the interaction of SKA2 and trauma on HPA axis function, suicide, and PTSD. SKA2 DNA methylation, Child Trauma Questionnaire (CTQ) scores, lifetime suicide attempt were obtained in 460 blood and 60 saliva samples from the Grady Trauma Project (GTP) cohort and PTSD status obtained from N= 64 longitudinal military subjects from the PRISMO sample. Dexamethasone Suppress Test (DST) data was obtained for 209 GTP subjects. SKA2 methylation interacted with CTQ scores to predict lifetime suicide attempt in saliva and blood with AUCs of 0.69 and 0.7 and to mediate the suppression of cortisol following DST. The change in SKA2 DNA methylation from pre to post deployment predicted PTSD in the PRISMO sample with an AUC of 0.78. The data suggest SKA2 methylation mediates vulnerability to suicidal behaviors and PTSD through dysregulation of the HPA axis.

SKA2 Methylation Associated with Decreased Prefrontal Cortical Thickness and Greater PTSD Severity among Trauma-Exposed Veterans
(Bio Med, Genetic-Neuro, Adult, A, Industrialized)

Sadeh, Naomi, PhD; Spielberg, Jeffrey, PhD; Logue, Mark, PhD; Wolf, Erika, PhD; Smith, Alicia, PhD; Lusk, Joanna, BA; Hayes, Jasmeet, PhD; Sperbeck, Emily, BS; Milberg, William, PhD; McGlinchey, Regina, PhD; Salat, David, PhD; Weeleetka, Carter, BS; Stone, Annjanette, BS; Schichman, Steven, MD, PhD; Humphries, Donald, PhD; Miller, Mark, PhD

Methylation of the SKA2 gene has recently been identified as a promising biomarker of suicide risk. Based on this finding, we examined associations between SKA2 methylation, cortical thickness, and psychiatric phenotypes linked to suicide in trauma-exposed veterans. The sample consisted of 200 trauma-exposed veterans of the conflicts in Iraq and Afghanistan (91% male). SKA2 genotype and DNA methylation was examined in relationship to cortical thickness, posttraumatic stress disorder symptoms (PTSD), and depression symptoms. Whole-brain vertex-wise analyses identified three clusters in prefrontal cortex that were significantly associated with SKA2 DNA methylation. Specifically, methylation was associated with bilateral reductions of cortical thickness in frontopolar and superior frontal gyrus, and similar effects were found in the right orbitofrontal cortex and right inferior frontal gyrus. PTSD symptom severity was positively correlated with methylation and negatively correlated with cortical thickness in these regions. Mediation analyses showed a significant indirect effect of PTSD on cortical thickness via SKA2 methylation status. Findings suggest that DNA methylation of SKA2 may confer risk for psychiatric phenotypes, including effects previously shown for suicidal behavior, by compromising cortical integrity in prefrontal regions.
Altered psychophysiological activity is a well-known feature of PTSD. It may involve altered responses to trauma-related stimuli and chronic changes in arousal. Such symptoms are related to dysregulated autonomic nervous system (ANS) functioning. PTSD patients, however, present with a variety of symptom constellations, which is not reflected in the categorical PTSD diagnosis, but is known to cluster in prototypical symptom profiles. Is ANS dysregulation linked to particular symptom profiles? To answer this, we link patterns of ANS dysregulation expressed in heart rate variability (HRV) to specific symptom profiles. Formerly deployed soldiers presenting in the Military Psychology Clinic within the Danish Defence were recruited (N=32, expected N=100). To target traumatic stress responses of anhedonia, hypervigilance and hyperarousal, we applied neurocognitive tests of reward sensitivity, emotional processing and behavioural inhibition while recording HRV and neurocognitive responses. We further recorded cardiac activity at rest. Self-reported PTSD symptoms were assessed with the PCL-C.

In our preliminary analysis, three different PTSD symptom profiles emerge: primarily anhedonic (53.5%), re-experiencing and hyperaroused (10%) and mildly elevated general symptoms (36.5%). We correlate HRV and neurocognitive data with these profiles to identify ANS and behavioural correlates.

Individuals with PTSD have been shown to experience deficits in executive functioning (EF) and other neuropsychological domains. While interventions for PTSD can elicit significant improvement in psychosocial functioning and distress, little is known about the impact of treatment on the neuropsychological impairments associated with PTSD. We examined several neuropsychological domains (e.g., EF, working memory, cognitive flexibility) pre- and post-PTSD treatment to better understand the impact of treatment on neuropsychological functioning. Our sample consisted of 87 male, older combat veterans enrolled in a randomized controlled trial comparing PE (n=46) to relaxation therapy (RT; n=41). Preliminary analyses indicated that, across conditions, individuals improved significantly in their verbal fluency (F (2,55)=12.07; p<.01; η2=.18), inhibition (F (2,54)=4.77; p=.03; η2=.80) and inhibition/cognitive flexibility (F (2,54)=5.52; p=.02; η2=.80). Baseline working memory scores (backwards digit span) predicted better treatment outcome (lower PCL scores) at post-treatment and 6-month follow-up in the PE condition but not in RT. Although preliminary, these results suggest that PTSD treatment is associated with improvement in cognitive functioning and that neurocognitive improvements may be dependent on treatment type. Results from additional analyses will be available in November.

The Interdependency in Development of Prolonged Grief and Posttraumatic Stress in Individuals Exposed to a Natural Disaster and who Lost a Close Relative: A Latent Growth with Dual Processes Approach

Cernvall, Martin, PhD; Bergh Johannesson, Kerstin, PhD; Arnberg, Filip, PhD
Traumatic loss is associated with prolonged grief and posttraumatic stress. However, less is known about how these processes are related, particularly in the long term. The purpose of this study was to investigate the interdependency of prolonged grief and posttraumatic stress over time among disaster survivors who were bereaved of a close relative in the event. 187 individuals (114 females; age M = 40, range 15–79 years) exposed to the 2004 tsunami in Southeast Asia and who lost a close relative were assessed at 1, 3, and 6 years after the disaster. Latent growth modelling with two parallel processes was used to investigate the interdependency between the long-term course of prolonged grief and posttraumatic stress. The results indicate that prolonged grief reactions and posttraumatic stress were highly correlated and both declined over time. Preliminary analyses suggest that changes in posttraumatic stress predicted changes in prolonged grief, but not vice versa. These preliminary findings suggest that changes in long-term posttraumatic stress predict changes in prolonged grief among individuals exposed to a natural disaster and who lost a close relative. Implications for research and clinical practice with bereaved long-term survivors of disasters who experience both prolonged grief and posttraumatic stress will be discussed.

**Trauma-Focused Cognitive Behavioral Therapy for Children in Foster Care: A WaitList Cross-Over Trial**

(Clin Res, Chronic, Child/Adol, M, Industrialized)

Sprang, Ginny, PhD; Craig, Carlton, PhD; Eslinger, Jessica, PhD, LCSW

University of Kentucky, Lexington, Kentucky, USA

University of Kentucky Center for the Study of Violence Against Children, Lexington, Kentucky, USA

There is considerable literature that establishes the efficacy of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) for children with sexual abuse histories. Less is known about the effectiveness of TF-CBT with children who have chronic exposure to a wide range of traumatic events, and who receive therapy in the context of the uncertainty and instability of foster care. Using a waitlist cross-over control design, this study assessed traumatic stress and behavioral outcomes in 103 young children who were receiving TF-CBT, considering foster care status. Methods: Children were assessed at waitlist entry, baseline, end of treatment and three-months post treatment using the Trauma Symptom Checklist for Children or Young Children, and the Child Behavior Checklist. Repeated measures analyses of covariance were used to test main effect differences in t-score change over time, comparing the treatment phase to a waitlist condition. Results: Findings indicate a significant improvement in trauma, and CBCL scores in the intervention condition from baseline to end of treatment, compared to the waitlist condition, with no covariate significance. Post-treatment scores continued to decline for the treatment condition. Implications: The implications of these findings regarding the delivery of TF-CBT to children in foster care will be discussed as will directions for future research.

**Symposium**

**Saturday, November 7**

10:00 a.m. to 11:15 a.m.

Galerie 3 – Affective Processes/Interventions Track

**Leveraging Basic Science Evidence for Application in Trauma Intervention: The Role of Self-Regulatory Coping Appraisals**

(Clin Res, Affect/Int-Comm/Int-Res Meth-Theory, N/A, M, N/A)

Smith, Andrew, PhD Candidate; Kaniasty, Krzysztof, PhD

Virginia Tech, Blacksburg, Virginia, USA

Indiana University of Pennsylvania, Indiana, Pennsylvania, USA

This symposium applies basic science related to self-regulatory coping appraisals for application in trauma-focused assessment and intervention. The authors present four original studies examining self-regulatory appraisals and trauma adaptation in four distinct post-trauma-contexts, bound together within the framework of social cognitive resiliency theories (Benight & Bandura, 2004; Bonanno & Burton, 2013). Study 1, conducted among trauma-focused therapy clients, examines coping self-efficacy appraisals as a determinant of positive treatment outcomes. Study 2, conducted among mass-violence survivors of the Virginia Tech school shootings, examines how social support seeking behaviors translate into emotion regulation benefits via coping appraisals, in turn, influencing mental health functioning across time. Study 3 entails a quasi-experimental design focused on how self-regulatory appraisals are involved in resiliency and burnout factors in the process of influencing mental health among police officers. Study 4 tested a novel clinical instrument for assessing self-regulatory coping appraisals across 3 longitudinal trauma-exposed samples via confirmatory factor analysis. Each of these studies uniquely focuses on how science related to self-regulatory coping appraisals can be assessed and/or leveraged towards improving individual and community-based interventions.

**Changes in Trauma Coping Self-Efficacy Perceptions as a Predictor of Changes in Post Traumatic Symptoms in Trauma Focused Therapy**


Benight, Charles, PhD; Bryan, Lori, PhD; Anderson, Valerie, PsyD

University of Colorado at Colorado Springs, Colorado Springs, Colorado, USA

Social cognitive theory provides a useful framework to test translational hypotheses bridging the gap between basic science and trauma-focused treatments (Benight & Bandura,
Resilience and Mental Health Problems among Police Officers: A Three Wave Study

(Clin Res, Acute-Health-Train/Ed/Dis-Theory, Adult, M, Industrialized)

van der Velden, Peter, PhD, MSc
Tilburg University, Tilburg, Noord-Brabant, Netherlands

All police officers in the Netherlands (more than 60,000 officers) participate in a training ‘Mental Strength’ aimed at improving their resilience. To assess the results of this training a quasi-experimental study was conducted with one pre-training assessment and two follow-ups (3 and 9 months). One of the assumptions of this training, as many others, is that resilience is a protective factor for mental health problems such as PTSD, burnout-, anxiety- and depression symptoms. In this presentation I focus on the interplay between resilience (MTQ-48, RS scale) and burnout-symptoms (MBI), and the predictive value of resilience for mental health problems including PTSD while controlling for confrontations with potentially traumatic events and demographics among the comparison group of officers. Is resilience a protective factor as often assumed?

How Does Seeking Social Support Improve Mental Health? Self-Regulatory Mechanisms and Hope for Collectively Traumatized Communities


Smith, Andrew, PhD Candidate1; Jones, Russell, PhD2

1Virginia Tech, Blacksburg, Virginia, USA
2Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA

Processes through which social network interactions improve post-trauma mental health remain largely theoretical due to lack of empirically tested, longitudinal models. This study examined self-regulatory coping appraisals (perceived social support availability) in future time of need; self-efficacy that mediate between social support seeking and mental health functioning. Additionally, acute PTS symptoms were examined as a catalyst (moderator) for adaptive coping behaviors and beliefs. Method: The sample (N = 1191; 60.8% female; 90% White) consisted of student survivors of the 2007 Virginia Tech shootings assessed at two time points (3-4 months and 1-year post-shootings). Path analysis using Mplus 7.2 was used to test moderated-serial-mediation models. Results: Social support seeking behaviors reduced psychological distress severity through bolstering (a) perceived social support availability, and in turn (b) self-efficacy appraisals. PTS symptoms moderated this serial mediation pathway, such that higher PTS symptoms promoted more support seeking, and in turn, more adaptive self-regulatory coping appraisals. The model accounted for 36% of the variance in mental health functioning (F[4,1095] = 152.65, p < .001). Conclusions: Findings are applied in service of intervention and prevention policy focused on harnessing the enabling benefits available through social networks.

Trauma Coping Self-Efficacy: A Context Specific Self-Efficacy Measure for Traumatic Stress

(Clin Res, Nat/Dis-Prevent-Theory, Adult, M, Industrialized)

Shoji, Kotaro, PhD1; Delahanty, Douglas, PhD2; Cieslak, Roman, PhD1; Benight, Charles, PhD1

1University of Colorado at Colorado Springs, Colorado Springs, Colorado, USA
2Kent State University, Kent, Ohio, USA

The present study evaluated the reliability and validity of a Trauma Coping Self-Efficacy (CSE-T) scale that was designed to measure coping self-efficacy for challenges and uncertainty during the post trauma recovery period. The CSE-T was evaluated using multiple samples: hospitalized trauma patients (n1 = 74, n2 = 69, n3 = 60), disaster survivors (n1 = 273, n2 = 227, n3 = 138), and trauma exposed college students (N = 242). Participants completed the original 20-item version of the CSE-T. Results of confirmatory factor analysis showed that a 9-item version of the CSE-T performed well across the samples. The test of invariance showed that the factor structure and factor loadings of the 9-item version of the CSE-T were similar across the samples, indicating that the underlying concept of general posttraumatic CSE is organized in a similar manner in different trauma-exposed groups. These results suggested strong support for cross-event construct validity of the 9-item version of the CSE-T. Examination of test-retest reliability indicated that the 9-item version of the CSE-T had strong test-retest validity over three months. Moreover, the 9-item version of the CSE-T demonstrated good discriminant validity. Further examination of the 9-item version of the CSE-T is a critical next step to find evidence for reliability and validity in other trauma-exposed groups.
Emotions Paper Session
Saturday, November 7
10:00 a.m. to 11:15 a.m.
Galerie 4 – Affective Processes/Interventions Track

Severity of Abuse and Neglect, and Difficulties in Emotion Regulation in Adolescents from Jammu, India: A Latent Class Approach
(Global, CPA-CSA-Global-Health, Child/Adol, M, S Asia)
Charak, Ruby, MA, PhD Student1; DiLillo, David, PhD2; Byllesby, Brianna, BA3; Claycomb, Meredith, MA4; Elhai, Jon, PhD2; Koot, Hans, PhD1
1VU University, Amsterdam, North Holland, Netherlands
2University of Nebraska - Lincoln, Lincoln, Nebraska, USA
3University of Toledo, Department of Psychology, Toledo, Ohio, USA
4University of Toledo, Toledo, Ohio, USA

The present study focused on the association of severity of five subtypes of abuse and neglect (measured via the Childhood Trauma Questionnaire, Bernstein et al., 2003) with difficulties in emotion regulation (measured via Difficulties in Emotion Regulation Scale [DERS]; Gratz & Roemer, 2004) in adolescents from India. We hypothesized that adolescents in latent classes representing co-occurrence of moderate-severe subtypes of abuse and neglect would report more difficulties in emotion regulation and that gender would moderate this association. Participants were 702 adolescents in the age range of 13-17 years (M = 15.2 years; 41.5% female; 61% maltreated) from Jammu. Latent class analysis revealed four distinct classes: Moderate-severe all types of abuse and neglect (Class-1; 15.9%), Moderate-severe physical/sexual abuse (Class-2; 30.1%), Moderate-severe neglect (Class-3; 25.1%), and Minimal abuse/neglect (Class-4; 28.9%). MANCOVA controlling for gender indicated that Classes 1 and 2 scored higher on all the DERS scales: lack of emotional awareness, lack of clarity, difficulty engaging in goal directed activities, limited access to strategies, non-acceptance of emotional response, and emotion driven impulsivity. Although males had higher scores on the latter two DERS scales, gender did not emerge as a significant moderator. Implications of the findings are discussed.

Relationship between Trauma Exposure and Anger Attacks: Findings from Post-Conflict and Refugee Samples
(Global, Agress-Comm/Vio-Cul Div-Refugee, Adult, M, Global)
Berle, David, PhD1; Steel, Zachary, PhD2; Silove, Derrick, MD, PhD2
1University of New South Wales, Randwick, New South Wales, Australia
2University of New South Wales, Sydney, New South Wales, Australia

High rates of anger attacks have been reported in post-conflict and refugee populations (Hinton et al., 2003; Silove et al., 2009). The present study sought to determine 1. the prevalence of anger attacks, 2. the association between anger attacks and trauma exposure, and 3. whether anger attacks arise as a trauma response independent of PTSD. Data were analyzed from five samples (N = 2357) comprising participants from Aceh, Indonesia (n = 650), Timor Leste (n = 1276), and three groups of refugees resettled in Australia (Mandaean refugees n = 241; Afghan, Iranian and Iraqi refugees n = 116; and a mixed group of refugees n = 74). Trauma experiences, Post Traumatic Stress Disorder (PTSD) symptoms and anger attacks were assessed in each sample. Multi-level regression analyses were conducted where effects of refugee status and recruitment sample were adjusted. Anger attacks were found to be prevalent in both post-conflict and refugee samples, associated with life exposure to potentially traumatic events and independent of PTSD symptoms. The implications of these findings suggest that anger should be considered a unique posttraumatic response that is associated with experiences of interpersonal violence and injustice.

Profiles of Peritraumatic Emotions
(Clin Res, Theory, Adult, M, Industrialized)
Larsen, Sadie, PhD1; Lancaster, Steven, PhD2; Melka, Stephen, PhD1
1Clement J. Zablocki VA Medical Center, Milwaukee, Wisconsin, USA
2Drake University, Des Moines, Iowa, USA

Background: Researchers have identified peritraumatic emotions as important predictors of who will develop PTSD symptoms. However, such investigations have not examined full profiles of emotions, perhaps because of the typical emphasis on fear or A2. Such an examination could help us identify subtypes of PTSD characterized by different sets of emotions being prominent (e.g. high fear vs. high shame vs. both). Objective: We identified distinct profiles of peritraumatic emotions and their correlates. Methods: We conducted latent profile analysis of peritraumatic emotions in 398 undergraduate students who reported a DSM-IV A1 trauma. We compared trauma type, PTSD, depression, posttraumatic cognitions, and dissociation between the resulting profiles. Results: We identified six distinct profiles: three had consistently low, medium, or high emotions, with three others characterized by 1) low shame and guilt, 2) high anger, guilt, and confusion, and 3) low guilt. These profiles significantly differed in terms of trauma type, PTSD, depression, dissociation, and posttraumatic cognitions. In particular, profiles with high levels of anger, shame, and guilt were consistently related to overall worse functioning. Conclusions: Fear and associated emotions do not differentiate between profiles. Distinct groups were identified, mainly differentiated by guilt, shame, anger, and disgust.
Towards Thriving: Identifying Predictors of High Functioning in the Context of High Distress
(Clin Res, Clin Res-QoL-Mil/Vets, Adult, M, Industrialized)

McCaslin, Shannon, PhD1; Cloitre, Marylene, PhD2; Neylan, Thomas, MD3; Gavert, Donn, MS4; Marmar, Charles, MD5
1National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA
2National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
3San Francisco VA Medical Center and UCSF, San Francisco, California, USA
4National Center for PTSD, VA Palo Alto Health Care System, Menlo Park, California, USA
5New York University School of Medicine, New York, New York, USA

PTSD has been associated with functional impairment across multiple domains. However, it has not been shown that PTSD, even when chronic, inevitably leads to progressive disability. Some individuals may function highly despite being highly symptomatic. Identifying factors that facilitate high functioning in the face of distress has important treatment implications. Veterans who served in support of operations in Iraq and Afghanistan were surveyed (n=251) and identified as low or high functioning using latent profile analysis. These two groups were then divided on symptom severity (PCL > 50). Veterans with high PTSD symptoms and high functioning (n=45) had significantly lower depression, alcohol use, and sleep problems, while simultaneously reporting significantly higher post-deployment social support, posttraumatic growth, optimism and hope than veterans with high symptoms and low functioning (n=100). Among those with high symptoms, logistic regression was utilized to identify significant variables in determining a participant’s functioning level. Fewer sleep difficulties and higher post-deployment social support significantly predicted membership in the high symptom/high functioning group, with a trend for high optimism. These findings contribute to our ability to identify additional factors that may increase functioning for individuals coping with severe PTSD symptomatology.

Master Clinician
Saturday, November 7
10:00 a.m. to 11:15 a.m.
Galerie 5 – Other Interventions Track

How to Treat Concurrent PTSD in Patients with Borderline Personality Disorder – Principles and Evaluation of DBT-PTSD
(Clin Res, CPA-CSA-Dev/Int-Health, Adult, M, Global)

Bohus, Martin, MD
Central Institute of Mental Health, Dept. of Psychosomatic Medicine, Mannheim, Baden-Württemberg, Germany

Approximately 60% of treated patients with borderline personality (BPD) disorders suffer from severe co-occurring posttraumatic stress disorder (PTSD), mostly related to sexual abuse during childhood. Even successful standard dialectical behavior therapy (DBT) requires additional treatment with these clients. In cooperation with M. Linehan at the Central Institute of Mental Health, Mannheim a three-month residential treatment program has been developed. It is based on the principles and rules of residential DBT and integrates trauma-specific treatment modules such as exposure procedures, processing of dysfunctional guilt, shame and disgust, compassion focused mindfulness as well as body therapy. Efficacy of DBT-PTSD was examined in a randomized controlled trial. Data revealed large effect sizes (d=1.4) and good response rates. Of particular importance seems that neither the severity of borderline personality disorder nor the number of self-harm behavior at the beginning of the therapy had negatively affected treatment outcome. Currently, this treatment program is evaluated on an outpatient basis.
system-wide assessment tools. Our focus group data suggest that this reluctance arises in part from skepticism regarding the clinical utility of assessment data and inadequate guidance regarding how to integrate complex assessment findings into a clinically actionable case formulation. This symposium will describe the development and field-testing of an assessment competency training curriculum (Layne & Kaplow, 2014) that builds on the Core Curriculum on Childhood Trauma to strengthen clinical assessment, case formulation, and intervention planning. We present data from ongoing field-testing of specific learning tools making up the training curriculum, including a heuristic for strengthening case conceptualization skills, and interactive graphical technology designed to promote understanding of statistical concepts relevant to intervention planning. Pilot data from psychiatry, social work, and psychology trainees who did (n = 29) or did not (n = 15) receive the training demonstrates that trained students showed greater comprehension of assessment-related concepts than untrained students based on post-test scores t (40) = 3.35, p = .01. We conclude by discussing plans for further development, evaluation, and dissemination.

Building Agency Capacity for Trauma Informed Evidence-Based Practice and Field Instruction
(Train/Ed/Dis, Clinical Practice, Child/Adol, M, N/A)

Abramovitz, Robert, MD1; Strand, Virginia, DSW2
1Hunter College School of Social Work, New York, New York, USA
2Fordham University School of Social Work, West Harrison, New York, USA

The Core Curriculum on Childhood Trauma (CCCT) effectively prepares MSW students and agency staff for evidence-based trauma treatment (EBTT) training. The CCCT enhances EBTT training uptake by building foundational trauma knowledge and strengthening clinical reasoning. Nevertheless, to successfully incorporate an EBTT model students need field placements with EBTT trained supervisors. To build and sustain needed field placements, child and adolescent trauma specialization programs at schools of social work formed partnerships with community-based agencies. This work integrated CCCT training with implementation science principles to address numerous organizational and workforce development challenges with the dual aims of creating an organizational climate capable of both sustaining services for complexity traumatized children and families, and providing MSW field placement sites for student EBCT training. Agency challenges included: 1) lack of trauma trained staff, 2) limited guidelines for selecting the most appropriate EBTT for their specific client populations, 3) insufficient knowledge about resources and procedures required to successfully implement EBCTT protocols, and 4) limited capacity to collect client outcome and clinical fidelity data. Formal organizational readiness assessment data and evaluation data on the use of CCCT training will be presented.

Symposium
Saturday, November 7
10:00 a.m. to 11:15 a.m.
Galerie 6 – Child Trauma Track

The Core Curriculum on Childhood Trauma: Integrating Instructional Design and Dissemination Science Principles to Strengthen Professional Trauma Competencies
(Train/Ed/Dis, Assess Dx-Cul Div-Dev/Int-Self-Care, Prof, M, Global)

Layne, Christopher, PhD1; Amaya-Jackson, Lisa, MD MPH2
1UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
2Duke University School of Medicine, Durham, North Carolina, USA

Calls for competency-based education by accrediting bodies in social work, clinical psychology, psychiatry, and other disciplines, as well as in the traumatic stress field (Courtois & Gold, 2009; Cook et al., 2014), underscore the need for competency-based curricula to complement training in evidence-based trauma treatment protocols (Layne et al., 2014). We describe our effort to construct and refine the Core Curriculum on Childhood Trauma to meet this need. We focus on efforts to incorporate: (1) Trauma-related competencies to serve as “benchmark” learning objectives. (2) Best-practice instructional design principles (Mayer, 2008) to enhance deep conceptual learning, knowledge retention, knowledge transfer, and scientific reasoning. (3) Problem-based learning to strengthen clinical assessment, clinical reasoning, and clinical decision-making skills. And (4) dissemination science principles to strengthen partnerships between academic institutions, community agencies, and school settings. Each presentation will present a conceptual overview and evaluation data from a field setting. We conclude by discussing challenges inherent in training a trauma-informed mental health workforce.

Understanding, Integrating, and Utilizing Trauma-Informed Assessment Data: Towards Best-Practice Assessment Competency Training
(Train/Ed/Dis, Assess Dx-Clinical Practice, Prof, M, Industrialized)

Kaplow, Julie, PhD, ABPP1; Layne, Christopher, PhD2; Mayer, Richard, PhD3
1University of Texas Health Science Center, Houston, Texas, USA
2UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
3University of California, Santa Barbara, Santa Barbara, California, USA

As the field continues to advocate for “trauma-informed” systems of care, clinicians often resist requests to implement...
Using Best-Practice Instructional Design Principles to Strengthen Core Trauma Competencies in Mental Health Providers: A Conceptual Framework and Pilot Study
(Train/Ed/Dis, Assess Dx-Cul Div-Dev/Int-Media, Prof, M, N/A)

Layne, Christopher, PhD; Mayer, Richard, PhD; Kaplow, Julie, PhD, ABPP; Berry, Heather, PhD; Studer, Margaret, MD; Pynoos, Robert, MD, MPH
1UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
2University of California, Santa Barbara, Santa Barbara, California, USA
3University of Texas Health Science Center, Houston, Texas, USA
4UCLA/Duke University National Center for Child Traumatic Stress, Los Angeles, California, USA
5UCLA Department of Psychiatry and Biobehavioral Sciences, Los Angeles, California, USA

We describe our progress in incorporating three “best-practice” instructional design features (Mayer, 2008) into the Core Curriculum on Childhood Trauma to increase its effectiveness in training a trauma-informed mental health workforce. These include: (1) Selecting various trauma-related competencies to serve as “benchmark” learning objectives. (2) Designing materials to enhance deep conceptual learning, knowledge retention, knowledge transfer, and scientific reasoning skills. And (3) using problem-based learning (PBL) methods to strengthen clinical assessment, clinical reasoning, and clinical decision-making skills. We focus on four types of questions PBL facilitators use to promote scientific reasoning, five types of knowledge required by different professional competencies, and six types of cognitive processes required by various clinical reasoning tasks. We illustrate how instructional design pervades all aspects of curriculum building, including learning objective selection, material design, online dissemination, and evaluation. We present field data gathered from three cohorts of mental health professionals to evaluate deep conceptual learning and clinical reasoning skills.

Symposium
Saturday, November 7
10:00 a.m. to 11:15 a.m.
Acadia – Other Interventions Track

Back to Basics – the Interplay between Research and Practice to Support Mental Health of Conflict-Affected Populations in Low-Resource Settings
(Clin Res, Commun-Complex-Refugee-Civil/War, Lifespan, M, E & S Africa)

Musisi, Seggane, MD
Peter C. Alderman Foundation, Kampala, Uganda

Armed conflicts predominantly affect low- and middle-income countries, where specialized human resources for mental health services are scarce. In such settings, the delivery of mental health support services and research activities can work hand-in-hand to facilitate contextually sensitive solutions to face challenges related to overwhelming and complex needs, barriers to access, and stigma. This symposium presents four examples of research-practice interplay from a public-private partnership between the Ministry of Health and Makerere University in Uganda, and the Peter C. Alderman Foundation in the USA. Four presenters discuss research with conflict-affected populations in northern Uganda. Presentations encompass: (a) development and randomized controlled trial of a locally developed group support psychotherapy; (b) design and programmatic evaluation of a combined mental health and livelihoods program for former child soldiers; (c) epidemiological research into the importance of childhood adversities and conflict-related events in determining mental health trajectories; and (d) formative qualitative research on a self-help intervention for South Sudanese refugees in Uganda.

Culturally Sensitive Group Support Psychotherapy for Depressed Persons Living with HIV/AIDS in Northern Uganda: A Randomized Controlled Trial
(Clin Res, Commun-Depr-Ilness-Civil/War, Adult, M, E & S Africa)

Alderman, Stephen, MD; Nakimuli-Mpungu, Etheldedra, MD, PhD
1Peter C. Alderman Foundation, Bedford, New York, USA
2Makerere University, Kampala, Uganda

Group support psychotherapy (GSP) is a culturally sensitive intervention that aims to treat depression by enhancing social support, teaching coping skills, and income generating skills. This presentation describes a randomized clinical trial comparing GSP to group HIV education (GHE). Adults (n=109) living with HIV and meeting criteria for major depression were recruited from an urban HIV care center in

148 | Page Presenters’ names are in bold. Discussants’ names are underlined. Moderators’ names are in bold and underlined. Guides to Keyword Abbreviations located on pages 2-3.
Primary keyword, Secondary Keywords, Population type) Presentation Level – Region
Kitgum, northern Uganda. Participants were randomized to 8 weekly sessions of GSP (n= 57) or 8 weekly sessions of GHE (n=52) and assessed at post-intervention and 6 months. Multi-level mixed effects linear regression models were applied using intention to treat. At 6 months, GSP led to faster reductions in depression symptoms (mean change difference -2.48; 95% confidence interval [CI]: -4.63 to -0.33), and faster increase in function scores (1.17; 95% CI: 0.17 to 2.19), resulting in mean depression scores of 3.28 for GSP and 5.66 for GHE, where a score ≥6 is indicative of depression. GSP also led to faster improvements in self-esteem score (4.74; 95% CI: 1.36 to 8.10). Study findings indicate that culturally sensitive group support psychotherapy is an effective treatment for major depression in persons living with HIV in northern Uganda. Inclusion of GSP content may be a promising strategy to improve current group HIV educational programs (Nakimuli-Mpungu et al, in press).

The Mid-Term Consequences of Armed Conflict: Evaluating a Program for Former Child Soldiers in Kitgum, Northern Uganda
(Practice, Clin Res-Complex-Civil/War-Mil/Vets, Adult, M, E & S Africa)

Musisi, Seggane, MD; Odokonyero, Raymond, MMed Psych
1Peter C. Alderman Foundation, Kampala, Uganda

The 20-year conflict in Uganda between the Lord’s Resistance Army and Ugandan People’s Defense Forces was associated with widespread human rights violations, the internal displacement of 1.8 million people, and structural use of child soldiers. Numerous former child soldiers, now in their twenties, continue to face the simultaneous challenge of coming to terms with individual experience of extreme stressors, while dealing with ongoing post-conflict stressors, including a lack of opportunities for livelihoods and challenges in social reintegration. In this presentation, an ongoing project with 50 former male child soldiers in northern Uganda is discussed. The project concerns a partnership combining mental health and psychosocial support with livelihoods activities. The presentation focuses on the design and results of the use of a structured programmatic monitoring and evaluation system that aimed to track progress of participants. In addition to quantitative analysis of four yearly assessments with symptom and functioning checklists, the monitoring and evaluation system included qualitative techniques such as a life-line approach and consultation with key stakeholders. The presentation will highlight both the concrete outcomes of this specific program, as well as more broadly the use of programmatic data to draw dissemination and implementation lessons for wider use.

Childhood Adversities and Mental Health in Post-Conflict Northern Uganda
(Assess Dx, CPA-Clin Res-Prevent-Civil/War, Child/Adol, M, E & S Africa)

Okello, James, MD
Peter C. Alderman Foundation, Gulu, Uganda

Background: Prevention of mental health outcomes in (post)conflict settings has become a key focus of attention, with particular emphasis on pathways to prevention. Stressful war-experiences may carry transgenerational consequences. However, there is a dearth of evidence and practice-based data on domains through which childhood adversity and mental health prevention efforts could affect change, particularly in Sub-Saharan Africa. Methods: The empirical and practice-based data on the link between childhood adversity and mental health problems across northern Uganda adversity and post-war settings will be reviewed based on 8 studies conducted by the author with 976 children and adolescents aged 10-21 (44 % girls) in Gulu (Okello et al, 2014; Nakimuli et al, 2013). Results: Studies linking childhood adversity to mental health outcomes in children and adolescents have found a stable relationship with depression symptoms and examples and evidence of successful efforts to mitigate the negative consequences of childhood adversity are contentious. Conclusion: The differential roles of childhood adversities and stressful war experiences as key determinants of mental health problems and global/cultural challenges to intervening with childhood adversity in conflict and post-conflict settings will be discussed.

Addressing Scale and Access Challenges in Low-Resource Humanitarian Settings: Development of a Psychosocial Self-Help Intervention for South Sudanese Refugees
(Clin Res, Commun-Prevent-Refugee-Civil/War, Adult, M, E & S Africa)

Tol, Wietse, PhD; Brown, Felicity, PhD; van Ommeren, Mark, PhD
1Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, USA
2World Health Organization, Geneva, Switzerland

Recently, the World Health Organization published guidance on managing conditions specifically related to stress in non-specialized (primary care) settings, with a focus on low- and middle-income countries (WHO, 2013). For adults with PTSD, this guidance recommends cognitive behavioral therapy with a trauma focus, eye movement desensitization and reprocessing, and stress management, with the specific remark that individuals need to be sufficiently trained and supervised to implement these interventions. In low-resource humanitarian settings, trained specialists are commonly not available to implement specialized psychotherapies. In such settings, alternatives need to be explored that ideally address the broad range of psychological distress observed in humanitarian settings, and require minimal training and supervision. This presentation focuses on formative research aimed at adapting an existing guided self-help intervention with South Sudanese refugees in northern Uganda. Qualitative research consisted of free listing and ranking, key informant interviews, semi-structured interviews, and multiple rounds of translation and consultation with local stakeholders. This presentation discusses the adaptations required for this particular context, and presents a structured method to adapt interventions to different cultural settings that may be applied in other settings.
The Salient Role of FKBP5 in the Regulation of Dimension Underlying Stress Pathology
(Bio Med, Bio Med-Genetic-Neuro, Adult, I, N/A)

Galatzer-Levy, Isaac, PhD1; Stein, Murray, MD, MPH, FRCPG2
1New York University Langone Medical Center, New York, New York, USA
2University of California, San Diego, La Jolla, California, USA

The FKBP5 gene and its epigenetic modification in response to environmental stress has emerged as a salient causal mechanism of risk for stress related psychopathology. This is due to its direct influence on cortisol binding to glucocorticoid receptors, which plays a key role in the development and maintenance of psychopathology. Mounting evidence indicates that FKBP5 represents a genetic pathway underlie diverse clinical presentations including PTSD, depression, anxiety, and schizophrenia. However, genetics likely influences psychopathology indirectly by altering the functioning of underlying neurobiological processes that then impact the development of mental illness. In the current symposium we examine the role of genetic and epigenetic factors associated FKBP5 across multiple paradigms including animal and human models of fear acquisition and extinction learning, resting state connectivity in a community sample, and neuroendocrine and posttraumatic stress responses among a naturalistic cohort of trauma exposed police officers. Together, these talks demonstrate the salient role of FKBP5 across contexts and species.

FKBP5 influences Neuroendocrine and Sleep Abnormalities Leading to Posttraumatic Stress in Urban Police Officers
(Bio Med, Res Meth-Genetic, Adult, I, Industrialized)

Galatzer-Levy, Isaac, PhD1; Marmar, Charles, MD2
1New York University Langone Medical Center, New York, New York, USA
2New York University School of Medicine, New York, New York, USA

Genetic, neuroendocrine, and behavioral abnormalities underlie diverse clinical presentations. These mechanisms interact to form complex pathways that increase the propensity towards psychopathology or resilience following trauma. Causal Graph Induction was utilized to identify pathways and interactions between genetic variants, neuroendocrine and behavioral functioning, and background and environmental risk factors leading to either stress reactive or resilience trajectories of response to trauma exposure in a cohort of urban police officers followed prospectively from academy training through 7 years of active duty. FKBP5 exerted direct causal effects and interactive effects with other genes leading to both altered cortisol responsivity and sleep patterns during academy training (prior to trauma exposure) leading to stress reactive trajectory membership following trauma exposure. These findings indicate that FKBP5 influences underlying risk of posttraumatic stress pathology.

Impact of FKBP5 Polymorphisms on Resting State Neural Activity
(Bio Med, Bio Med-Genetic-Neuro, Adult, I, Industrialized)

Bryant, Richard, PhD; Liddell, Belinda, PhD
University of New South Wales, Sydney, New South Wales, Australia

The FKBP5 polymorphism is a key regulator of the glucocorticoid system underpinning stress responsivity, and risk alleles can increase vulnerability for developing posttraumatic stress disorder. To delineate the specific role of FKBP5 risk alleles unumbered by the confounds of psychopathology, this study investigated spatial maps, power spectra, and connectivity in healthy participants with and without FKBP5 high-risk alleles in neural networks active during resting state with functional magnetic resonance imaging (fMRI). Thirty-seven healthy participants were selected on the basis of four SNPs in the FKBP5 gene region (rs3800373, rs9296158, rs1360780 and rs9470080) to determine participants who were carriers of the FKBP5 high and low risk alleles. During resting state fMRI, FKBP5 low-risk allele group displayed more power in the low frequency range (< 0.1 Hz) than the high-risk allele group, who had significantly more power in higher frequency bins (>1.5Hz). This difference was apparent only in a fronto-temporo-parietal network underpinning salience detection and emotion processing. This study provides initial evidence that the risk alleles of the FKBP5 polymorphism are associated with different resting state activity in a fronto-temporal-parietal network, and may point to mechanisms underpinning high-risk carriers’ vulnerability to severe stress reactions.

Conditioned Fear Extinction Trajectories in Traumatized Combat Veteran and Civilian Populations

Northholm, Seth, PhD1; Jovanovic, Tanja, PhD2; Galatzer-Levy, Isaac, PhD3; Briscione, Maria, BS4; Ressler, Kerry, MD, PhD5; Bradley, Bekh, PhD6
1Atlanta VAMC/Emory University, Decatur, Georgia, USA
2Emory University School of Medicine, Atlanta, Georgia, USA
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4Emory University/Atlanta VAMC, Atlanta, Georgia, USA

Our group has previously shown that traumatized individuals with posttraumatic stress disorder (PTSD) exhibit impaired fear extinction during extinction training. A consistent finding
is excessive fear at the outset of fear extinction learning that begins shortly after fear acquisition; we have termed this excessive fear as one’s fear load. Using a novel analytical approach, Latent Growth Mixture Modeling (LGMM), we identified distinct trajectories of within-session extinction in traumatized human combat veteran and civilian populations. Trajectories include three primary sub-classes: (1) one class displaying excessive fear load and an inability to extinguish fear during training (6.3%), (2) a second class that shows fear load at the beginning of training but retains the ability to extinguish fear during the session (14.8%), and (3) a third class showing no excessive fear load at the start of extinction and successfully extinguishing fear (normative class, 78.9%). Class assignment was differentially predicted by lifetime PTSD diagnosis but not current diagnosis as well as anxious and avoidant attachment style. This type of analysis captures general vulnerability to stress and underscores the need to enhance our understanding of individual client differences (e.g., FKBP5 genomics) as they relate to treatment outcome, most notably when extinction-based approaches are recruited.

**Transient Suppression of the Hypothalamic-Pituitary-Adrenal Axis leads to Enhanced Fear Extinction and Dynamic Fkbp5 Regulation in Amygdala**

*Andero Gali, Raul, PhD*

Emory University, Atlanta, Georgia, USA

It is known that Dexamethasone, a glucocorticoid receptor agonist, suppresses the hypothalamic-pituitary-adrenal (HPA) axis stress response and modulates Fkbp5 levels. Also, Dexamethasone enhances fear extinction but the molecular mechanisms are not well understood. In our Posttraumatic stress disorder (PTSD)-like model, immobilization to a wooden board, mice present impaired fear extinction accompanied of enhanced HPA axis activation similarly as it occurs in PTSD. We suggest that systemic dexamethasone in PTSD-like mice enhances fear extinction followed by genetic and epigenetic changes within the Fkbp5 gene in the amygdala. All this may be relevant for the treatment of anxiety disorders with altered fear learning such as PTSD.

### Panel Presentation

**Saturday, November 7**

**10:00 a.m. to 11:15 a.m.**

**Salon D – Public Health Track**

**The Culmination of Experiences following Three Decades and Three Disasters: Long-term Understanding, Implications, and Treatment of Trauma Symptoms**


**Ososky, Howard, MD PhD**; **Ososky, Joy, PhD**; **Maslow, Carey, DrPH**; **Wyka, Katarzyna, PhD**; **Steinberg, Alan, PhD**; **Goenjian, Armen, MD**; **Speier, Anthony, PhD**

1. Louisiana State University Health Sciences Center, New Orleans, Louisiana, USA
2. New York City Department of Health and Mental Hygiene, New York, New York, USA
3. Hunter College, CUNY, New York, New York, USA
4. UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
5. National Center for Child Traumatic Stress at UCLA, Los Angeles, California, USA

Disastrous incidents result in mass human casualties, economic hardships, loss of infrastructure, physical problems and trauma symptoms. Lessons learned, over the past 30 years, have provided innovation and efficacy of disaster related behavioral health response including: morbidity and mortality; research and statistical methodologies; service and treatment provision; and longer term recovery and consequences. Knowledge gleaned following, the 1988 Spitak earthquake in Armenia, the 2001 Attacks on the World Trade Center, and in 2005 Hurricane Katrina, will be presented. Topics will include: data collected through various monitoring and treatment programs; longitudinal posttraumatic stress symptoms and PTSD diagnosis; moderating and mediating factors related to symptom severity; and long-term trajectories of trauma symptoms including recovery and resilience. The panel discussion will conclude with evolution, current conceptualization, and implementation of trauma informed public policy and psychological support following disasters. This culmination of experience not only has implications for both survivors and treatment providers, but can also aid in understanding and meeting the post-disaster recovery needs of adults, children, adolescents and families impacted by future disasters.
Moral injury is a construct that is defined as "perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations," and potentially morally injurious events can have lasting emotional, psychological, behavioral, spiritual, and social consequences (Litz et al., 2009). Moral injuries stem from direct participation in acts of combat, such as killing or harming others, or indirect acts, such as witnessing death or dying, failing to prevent immoral acts of others, or giving/receiving orders that are perceived as moral violations. We present four studies that advance moral injury research through a better understanding of mechanisms and novel treatments. First, we present results from a treatment study aimed at ameliorating the mental health and functional effectiveness of Impact of Killing (IOK), a novel, cognitive behavioral therapy (CBT) aimed at reducing mental health symptom and functional difficulties. Inclusion criteria included PTSD diagnosis, past trauma-focused therapy, and distress regarding killing in war. Veterans were randomized to IOK treatment or to a six-week waitlist condition. IOK is a 6-8 session, weekly, individual treatment, lasting 60-90 minutes, and focused on key themes including physiology of killing responses, moral injury, loss, and self-forgiveness. In an intent-to-treat analysis (N=30), compared to controls, the IOK group experienced significant improvements in general psychiatric symptoms, depression, anxiety, obsessive compulsive symptoms, and avoidance. The IOK group also experienced improvements in functional measures (e.g., participation in community events; more intimacy with a partner); a reduction in cognitions related to suffering due to killing; and gains in self-forgiveness, self-compassion, and self-acceptance. Veterans also reported that IOK was acceptable and feasible. These results provide evidence that veterans can benefit from a treatment focused on the impact of killing following initial trauma therapy.

Impact of Killing in War: A Randomized, Controlled Pilot Trial
(Clin Res, Clin Res-Torture-Mil/Vets, Adult, M, Industrialized)

Maguen, Shira, PhD1; Burkman, Kristine, PhD2; Madden, Erin, MPH3; Dinh, Julie, BA4; Keyser, Jessica, PhD5; Bosch, Jeane, MS, PhD Student6; Schmitz, Martha, PhD7; Neylan, Thomas, MD8; Maguen, Shira, PhD9; Litz, Brett, PhD10; Nash, William, MD11
1San Francisco VA Medical Center and UCSF, San Francisco, California, USA
2VA Boston Health Care System/Boston University, Boston, Massachusetts, USA
3Boston VA Research Institute, Boston, Massachusetts, USA

There is no clear treatment trajectory after evidence-based PTSD treatment for veterans who continue to be impaired by killing in war. The purpose of this study was to test the effectiveness of Impact of Killing (IOK), a novel, cognitive-behavioral therapy (CBT) aimed at reducing mental health symptoms and functional difficulties. Inclusion criteria included PTSD diagnosis, past trauma-focused therapy, and distress regarding killing in war. Veterans were randomized to IOK treatment or to a six-week waitlist condition. IOK is a 6-8 session, weekly, individual treatment, lasting 60-90 minutes, and focused on key themes including physiology of killing responses, moral injury, loss, and self-forgiveness. In an intent-to-treat analysis (N=30), compared to controls, the IOK group experienced significant improvements in general psychiatric symptoms, depression, anxiety, obsessive compulsive symptoms, and avoidance. The IOK group also experienced improvements in functional measures (e.g., participation in community events; more intimacy with a partner); a reduction in cognitions related to suffering due to killing; and gains in self-forgiveness, self-compassion, and self-acceptance. Veterans also reported that IOK was acceptable and feasible. These results provide evidence that veterans can benefit from a treatment focused on the impact of killing following initial trauma therapy.
of generosity and kindness toward the self following self-perceived inappropriate action, may be associated with decreased risk for suicide ideation and attempts, but few studies have examined this relationship. In a sample of 476 military personnel and veterans enrolled in college classes, self-forgiveness was associated with significantly less severe posttraumatic stress symptoms (β = -.131, p = .001) and was lowest among those participants who had made a suicide attempt (F (2, 435) = 26.861, p < .001). Results of multinomial logistic regression indicated that self-forgiveness did not significantly differentiate participants with a history of suicide ideation from those who had never been suicidal (AOR = 1.03, p = .750), but self-forgiveness significantly differentiated participants who had attempted suicide from those who had only considered suicide (AOR = 1.08, p = .048). Self-forgiveness did not moderate the effects of posttraumatic stress on either suicide ideation or suicide attempts. Results suggest self-forgiveness may reduce risk for suicide attempts among military personnel and veterans with a history of suicide ideation.

Moral Injury and Mental Health in Refugees in Australia and Switzerland
(Global, Rights-Refugee-Torture-Civil/War, Adult, M, Global)

Nickerson, Angela, PhD1; Schnyder, Ulrich, MD2; Morina, Naser, MA1; Schick, Matthias, MD2; Liddell, Belinda, PhD1; Bryant, Richard, PhD1
1University of New South Wales, Sydney, New South Wales, Australia
2University Hospital Zurich, Zurich, Switzerland
3University Hospital Zurich, Zurich, Switzerland
4University Hospital Zurich, University of Zurich, Zurich, Switzerland

While refugees are often exposed to traumatic events that transgress fundamental moral principles, no research has considered the impact of moral injury on refugee mental health. We conducted two studies to examine the extent to which refugees experienced moral injury, and how this related to psychological outcomes. The first study indicated that, amongst 134 refugees in Switzerland, moral injury in relation to others’ actions predicted PTSD, explosive anger and quality of life, after controlling for trauma exposure. The second study implemented latent class analysis to investigate profiles of moral injury in 73 resettled refugees in Australia. Findings strongly supported a three-class solution, with 20% evidencing moral injury in relation to their own and others’ actions (moral injury-other), and 54% evidencing moral injury in relation to others’ actions (moral injury-other), and 26% reporting low levels of moral injury. Membership in the moral injury self/other group was associated with torture exposure. Class membership was not associated with PTSD or depression, however membership in the self- and other-moral injury group was associated with greater impulsivity and less hopelessness than membership in other classes. These findings highlight the association between perceived moral transgressions, emotion regulation and mental health in refugees.

Symposium
Saturday, November 7
10:00 a.m. to 11:15 a.m.
Salon F-H – Neuro Track

Standing in the Shadow of Risk: Examining the Effects of Parental Risk and Trauma on Children
(Prev, CPA-Dev/Bio/Int-Intergen, Lifespan, M, Industrialized)

Grasso, Damion, PhD
University of Connecticut Health Center, Farmington, Connecticut, USA

The intergenerational transmission of stress is a compelling topic with a fast growing body of literature. This symposium presents a collection of studies that pertain to understanding how caregivers’ experiences of stress and trauma influence outcomes for children. The first presentation explores the influence of mothers’ exposure to psychological and physical domestic violence on internalizing and externalizing behavior problems in a sample of preschool-age children – also examining whether maternal trauma-related symptoms, parenting, and social support modulate these relationships. A second presentation examines maternal nurturance as a potential mediator of the relationship between mothers’ cumulative sociodemographic risk and diurnal cortisol regulation in preschool-age children. A third presentation focuses on school-age children and examines potential parent- and child-specific mediators of the relationship between parents’ exposure to stressful life events and childhood anxiety. Finally, a fourth presentation examines linkages between perceived stress and psychopathology in pregnant women and associated birth outcomes in the context of interpersonal violence exposure and genetic risk. These presentations will offer mechanistic insight into the effects of parental stress and trauma on children and may help to inform prevention efforts.

Emotional and Physical Intimate Partner Violence and Young Children’s Mental Health
(Clin Res, Dev/DV-Fam/Int, Lifespan, M, Industrialized)

Greene, Carolyn, PhD1; Grasso, Damion, PhD2; Chan, Grace, PhD1; McCarthy, Kimberly, BA1; Wakschlag, Lauren, PhD2; Briggs-Gowan, Margaret, PhD2
1University of Connecticut School of Medicine, West Hartford, Connecticut, USA
2University of Connecticut Health Center, Farmington, Connecticut, USA
3University of Connecticut School of Medicine, Farmington, Connecticut, USA
4Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA

Mechanisms that explain the association between intimate partner violence (IPV) and mental health problems in children remain unclear. In particular these pathways have
not been contextualized to understand the role of maternal experience. As a result, little is known about the role of maternal posttraumatic stress symptoms (PTSS) or the differing impact of emotional and physical IPV on early-emergent psychopathology. This study examines the independent impact of past-year IPV experiences on mothers' PTSS, their parenting behaviors, and their children’s externalizing symptoms in a high-risk sample of preschool-age children (N=400) in an urban region of the Midwest. Maternal and child mental health symptoms were reported by mothers, while IPV experience and parenting style were clinician-rated following mother interviews. Analyses revealed that (a) both physical and emotional IPV predicted mothers’ PTSS, and (b) only emotional IPV predicted mothers’ use of punitive parenting strategies and children’s externalizing symptoms. In addition, maternal PTSS and punitive parenting predicted children’s externalizing symptoms. Findings suggest that maternal PTSS and parenting behavior may play an important role in the link between IPV and child psychopathology. SEM will be used to further elucidate relationships among these constructs, as well as observational indicators of parenting.

Maternal Nurturance Mediates the Association between Cumulative Risk and Children’s Physiological Regulation
(Prevent, Dev/Fam/Fam/Int/Bio/Int, Child/Adol, M, Industrialized)

Bernard, Kristin, PhD1; Dozier, Mary, PhD2
1 Stony Brook University, Stony Brook, New York, USA
2 University of Delaware, Newark, Delaware, USA

Early in life, parents serve as co-regulators of their children's emotions, physiology, and behavior. When children lack a sensitive caregiver, they may fail to develop adequate regulatory abilities, including healthy regulation of the hypothalamic-pituitary-adrenal (HPA) axis. In this study, we examined whether maternal risk predicted dysregulated (i.e., blunted) diurnal cortisol rhythms in early childhood via reduced maternal nurturance. Participants included 101 mothers and their preschool-age children (M = 4.93 years, SD = 0.58; 54% male; 85% minority). Cumulative maternal risk was a sum of 6 risk indicators, including living in poverty, elevated maternal depression, low education, minority, single parenthood, and being a young mother. Diurnal cortisol regulation was assessed using latent change scores to measure morning-to-bedtime rhythms of salivary cortisol. Maternal nurturance was coded from video-recorded episodes of a distressing task (i.e., finger prick). Using a structural equation modeling framework, results supported the proposed mediation model. Specifically, higher cumulative risk predicted lower maternal nurturance, which in turn predicted flatter diurnal cortisol rhythms. Findings suggest that maternal risk disrupts children’s physiological regulation, highlighting low maternal responsiveness to children’s distress as one possible mechanism.

Stressful Life Events and Child Anxiety: Examining Parent and Child Mediators: Findings from Concurrent and Prospective Analyses
(Clin Res, Dev/Fam-Fam/Int, Child/Adol, M, N/A)

Pella, Jeffrey, PhD1; Platt, Rheanna, MD, MPH2; Williams, Sarah, PhD2; Ginsburg, Golda, PhD1
1 University of Connecticut Health Center, West Hartford, Connecticut, USA
2 New York University/Bellevue Hospital Center, New York, New York, USA
3 Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

While stressful life events have been linked with excessive anxiety in youth, the mechanisms of this relation are poorly understood. The current study extends the literature on life events and child anxiety by testing a theory-driven mediational model. Specifically, one child factor (child cognitions/Locus of Control)), two parent factors (parent psychopathology, and parenting stress), and two parent-child relationship factors (parent-child dysfunctional interaction and parenting style) were examined as mediators in the relationship between stressful life events and severity of child anxiety. One hundred thirty anxious parents and their nonanxious, high-risk children (ages ranged from 7 to 13 years) participated in this study. Concurrent results indicated that total parent stress mediated the association between stressful life events and severity of anxiety symptoms. Child cognitions, parenting behaviors, parent psychopathology and parent-child relationship factors failed to emerge as mediators. Findings provide support for more complex theoretical models linking life events and child anxiety and suggest potential targets of intervention. Prospective analyses are underway.

Effects of Maternal History of Interpersonal Violence, Psychopathology, Perceived Stress, and Genetic Risk on Pregnancy and Birth Outcomes
(Prevent, CPA-DV-Geneic-InterGen, Lifespan, M, Industrialized)

Grasso, Damion, PhD1; Briggs-Gowan, Margaret, PhD2; Johnson, Amy, MD2; Covault, Jonathan, MD, PhD2
1 University of Connecticut Health Center, Farmington, Connecticut, USA
2 University of Connecticut School of Medicine, Farmington, Connecticut, USA

Pregnancy is a critical time for maternal and child health, with maternal depression (Szegda et al., 2014), anxiety (Ding et al., 2014), posttraumatic stress (Yonkers et al., 2014) and psychosocial stress (Loeurnans et al., 2013) all contributing to adverse birth and child outcomes. These risk factors are more common in women with a history of interpersonal violence (Bell & Seng, 2013; Plant et al., 2013). The current study focuses on a sample of pregnant women in their third trimester (N = 100) with aims to examine (1) whether maternal history of interpersonal violence is associated with psychopathology and perceived stress, as
well as adverse pregnancy/birth outcomes, (2) whether psychopathology and perceived stress moderate the association between violence history and adverse outcomes, and (3) whether a genetic marker (FKBP5) associated with heightened stress reactivity in the context of early adversity (Binder, 2009) confers additional risk. Preliminary analyses (N = 30) reveal that women with a history of interpersonal violence (32%) have a greater mean number of lifetime trauma types (M = 8.0 ± 3.7, p<.001) and show higher scores on depression (t=2.81, p<.010), stress reactivity (t=2.84, p=.009), and perceived stress (t=2.5, p=.020). Additional analyses will be conducted on the full sample and will add to the growing knowledge of mechanisms of prenatal risk.

Workshop Presentation
Saturday, November 7
10:00 a.m. to 11:15 a.m.
Balcony J-K – Other Interventions Track

Training in Symptom-Based Pharmacotherapy Approaches to PTSD
(Train/Ed/Dis, Clin Res-Clinical Practice-Sleep-Train/Ed/Dis, Adult, M, Industrialized)

Bernardy, Nancy, PhD1; Vermetten, Eric, MD, PhD2; De Jong, Joop, MD1; Dutton, Traci, PharmD4; Sherrieb, Kathleen, MD, DrPH5; Vermetten, Eric, MD, PhD2; De Jong, Joop, MD1; Dutton, Traci, PharmD4; Sherrieb, Kathleen, MD, DrPH5

1National Center for PTSD, White River Junction, Vermont, USA
2Leiden University Medical Center, Leiden, ZH, Netherlands
3Parnassia Group, Den Haag (The Hague), ZH, Netherlands
4National Center for PTSD, Executive Division, White River Jct, Vermont, USA
5National Center for PTSD/ Dartmouth Medical School, White River Junction, Vermont, USA

A growing literature suggests that the practice of prescribing “inappropriate” medications as recommended by guidelines may be driven by attempts to manage specific symptoms such as insomnia, chronic pain or irritability that do not readily respond to first-line PTSD pharmacotherapies. Given the efficacy of some medications as hypnotic agents, this may be a major reason why practitioners persist in prescribing the agents during posttraumatic aftermath. Interventions that target individual prescribing clinician behavior may be required to decrease the use of these medications. This workshop brings together speakers to present strategies they are using to disseminate training on symptom-based treatment approaches to PTSD. Dr. Vermetten will present on training that reflects a rational approach to pharmacotherapy for specific symptoms of PTSD. Dr de Jong will discuss the effect of changing knowledge and guidelines in pharmacotherapy for PTSD in a large Netherlands psychiatric institute. Dr. Nancy Bernardy will present on a training initiative developed by the NCPTSD team to inform rural practitioners on effective treatment options for PTSD-related symptoms of insomnia that uses an intervention to meet with prescribing clinicians, review their individual caseload and patient-level prescribing data to make suggestions for alternative treatments to address symptoms.
most people with common anxiety and depressive disorders receive mental health services in general medical settings. Collaborative care has emerged as an effective approach to the delivery of mental health services in these settings. Trauma informed care has emerged more recently as a response to the need to provide care effective care aimed at the needs of those who have experienced a range of traumatic exposures including adverse childhood experiences, sexual and physical assault and war-exposures. In spite of the success of collaborative care for common mental disorders, early investigations testing adaptations of collaborative care for PTSD have thus far been mixed. This symposium will present and contrast the results of two collaborative care trials for PTSD. The two trials target different primary care patient populations with PTSD, address different health care systems, use similar collaborative care approaches, and emerge with divergent results. Previously published PTSD collaborative care trials will be reviewed, two new trial results will be presented, and discussion will focus on methodological and clinical lessons from these trials. The goal is to advance understanding of what works and to improve next generation models of trauma informed practice.

Collaborative as Trauma Informed Practice: Review of Primary Care Studies for PTSD
(Clin Res, Commun-Health-Res Meth-Care, Adult, M, Industrialized)

Engel, Charles, MD, MPH; Zatzick, Douglas, MD; Jaycox, Lisa, PhD; Freed, Michael, PhD, EMT-B
1RAND Corporation, Arlington, Virginia, USA
2University of Washington/ Harborview Medical Center, Seattle, Washington, USA
3Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury / USUHS, Bethesda, Maryland, USA

Most people with common anxiety and depressive disorders receive mental health services in general medical settings. Collaborative care has emerged as an effective approach to the delivery of mental health services in these settings. Trauma informed care has emerged more recently as a response to the need to provide effective mental health services for those who have experienced traumatic exposures including adverse childhood experiences, sexual and physical assault and war-exposures. This presentation will discuss collaborative primary care as a method of trauma informed practice. A review will cover currently published randomized trials of collaborative primary care for PTSD as well as design and intervention features and results. Potential lessons for future consideration from this small but rapidly evolving literature will be discussed.

Impact of the Violence and Stress Assessment (ViSTA) Program to Improve PTSD Management in Primary Care: A Randomized Controlled Trial
(Clin Res, Care, Adult, M, Industrialized)

Meredith, Lisa, PhD; Eisenman, David, MD; Han, Bing, PhD; Green, Bonnie, PhD; Kaltman, Stacey, PhD; Wong, Eunice, PhD; Sorbero, Melony, PhD; Vaughan, Christine, PhD; Cassells, Andrea, MPH; Zatzick, Douglas, MD; Diaz, Claudia, PhD; Hickey, Scot, PhD; Kurz, Jeremy, Doctoral Student; Tobin, Jonathan, PhD
1RAND Corporation, Santa Monica, California, USA
2UCLA School of Medicine, Los Angeles, California, USA
3Georgetown University School of Medicine, Washington, District of Columbia, USA
4Georgetown University Medical Center, Washington, District of Columbia, USA
5Clinical Directors Network, New York, New York, USA
6University of Washington/ Harborview Medical Center, Seattle, Washington, USA
7Pardee RAND Graduate School, Albuquerque, New Mexico, USA
8Pardee RAND Graduate School, Santa Monica, California, USA

The effectiveness of primary care management of mental health problems is clear for depression and growing but mixed for anxiety, including PTSD. Little is known about whether this approach can be delivered effectively in settings that serve low-income patients such as Federally Qualified Health Centers (FQHCs). We compared patients (n=404) from six FQHCs randomized to intensive clinician education (ICE) or PTSD Care Management (PCM) over one year with assessments at baseline, six months, and 12 months. Patients in the PCM and ICE conditions improved similarly over the 1-year evaluation. PTSD diagnosis rates decreased by 56% for PCM patients and by 60% for ICE patients (p<.01). PTSD symptoms decreased by 24.2 and 26.8 points, respectively (p<.33). More PCM patients engaging in care management had mental health visits (+14%, p<.01) and were prescribed psychoactive medications (+15.2%, p<.01) than PCM patients not engaging in care management and ICE patients at six months. We found no differences in psychotherapy received or health-related quality of life. Findings suggest that a care management intervention for PTSD in FQHCs was equivalent to intensive clinician education in reducing PTSD diagnosis and symptom severity but engaging in the PCM intervention increased mental health care visits and psychoactive medication prescription.
STEPS-UP: A Randomized Trial of Centrally Assisted Collaborative Telecare Management for PTSD and Depression in Military Primary Care
(Clin Res, Clin Res-Depr-Prevent-Care, Adult, M, Industrialized)

Freed, Michael, PhD, EMT-B1; Jaycox, Lisa, PhD2; Engel, Charles, MD, MPh3; Bray, Robert, PhD3; Brambilla, Donald, PhD4; Zatzick, Douglas, MD2; Litz, Brett, PhD6; Tanielian, Terri, MA2; Novak, Laura, BS2; Lane, Marian, PhD2; Belscher, Brad, PhD2; Rae Olmsted, Kristine, MPH2; Evatt, Daniel, PhD2; Vandermaas-Peeler, Russ, MS5; Unützer, Jürgen, MD, MPH9; Katon, Wayne, MD10
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2RAND Corporation, Arlington, Virginia, USA
3RTI International, Research Triangle Park, North Carolina, USA
4RTI International, Rockville, Maryland, USA
5University of Washington/Harborview Medical Center, Seattle, Washington, USA
6VA Boston Health Care System/Boston University, Boston, Massachusetts, USA
7Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury, Bethesda, Maryland, USA
8RTI International, Durham, North Carolina, USA
9University of Washington School of Medicine, Seattle, Washington, USA
10University of Washington, Seattle, Washington, USA

After 15 years of war, it remains hard for US service members to access quality mental health care. The STEPS-UP study (STepped Enhancement of PTSD Services Using Primary care) was a 6 installation (18 clinic) randomized trial comparing centrally assisted stepped collaborative telecare to usual integrated mental health in primary care for PTSD and depression. Primary outcomes were PTSD Diagnostic Scale (PDS) and Symptom Checklist depression scale scores (SCL-20). STEPS-UP (n = 332) and usual care (n = 334) patients had similar baseline PDS PTSD (29.4±9.4 vs. 28.9±8.9) and SCL-20 depression (2.1±0.6 vs. 2.0±0.7) scores. Compared to usual care, STEPS-UP patients reported significantly greater 12-month decrease in PDS PTSD scores (-2.53; 95% CI=0.59-4.47) and SCL-20 depression scores (-0.26; 95% CI=0.11-0.41). Fifty percent improvements were significantly greater for STEPS-UP than usual care for PTSD (25.0% vs. 17.0%; RR=1.6; 95% CI, 1.1-2.4) and depression (29.7% vs. 20.6%; RR=1.7; 95% CI, 1.1-2.4). STEPS-UP patients had significantly greater improvements in somatic symptoms and mental health-related functioning and increases in phone health contacts and appropriate medication use. Greater central assistance and telecare management are likely to improve care and outcomes of PTSD and depression in military primary care.
Concurrent Session 11

Symposium
Saturday, November 7
1:00 p.m. to 2:15 p.m.
Galerie 2 – Cognitive Processes/Interventions Track

Perceived Barriers and Complexities of Treatment during Prolonged Exposure or Sertraline Treatment for Posttraumatic Stress Disorder
(Clin Res, Cog/Int, Adult, M, N/A)

Marks, Elizabeth, MS¹; Ehring, Thomas, PhD²
¹University of Washington, Seattle, Washington, USA
²Ludwig-Maximilians-University, Munich, Bavaria, Germany

Despite effective interventions for the treatment of PTSD, there still exist perceived complexities that are thought to influence treatment processes, as well as perceived barriers to treatment. These issues are important to consider, given that clinicians may treat patients differently based on their perceptions of such barriers. Examples of complexities and barriers include dissociative symptoms, increased severity of symptoms early in treatment, and racial and/or ethnic minority status. The overarching goal of this symposium is to further explore whether these perceptions are accurate, and if so to what extent they may affect treatment processes and treatment outcome. Specifically, the three talks will examine the following: 1) effects of dissociation on rates of symptom change over the course of treatment; 2) the presence of symptom exacerbation following introduction of imaginal exposure, and whether such exacerbations affect treatment outcome and dropout; 3) the relationship between racial/ethnic minority status and seeking treatment behavior, therapeutic alliance, and quality of care delivered. Our discussant will summarize commonalities and discrepancies across the four talks, and emphasize key points and clinical implications.

Exploring Evidence of a Dissociative Subtype in PTSD: Differential Symptom Structure and Treatment Efficacy for those who Dissociate

Burton, Mark, BA¹; Feeny, Norah, PhD¹; Zoellner, Lori, PhD²
¹Case Western Reserve University, Cleveland, Ohio, USA
²University of Washington, Seattle, Washington, USA

The DSM-5 includes a dissociative specifier for PTSD suggesting that those who persistently dissociate represent a clinically distinct subgroup. To be clinically useful, a dissociative subtype should be distinct and have treatment implications (Dalenberg et al., 2012). However, the neurological and clinical evidence for a dissociative subtype are limited in scope and inconclusive (Forbes et al., 2004; Zoellner et al., 2013). In a sample of 200 men and women with chronic PTSD enrolled in a treatment trial (prolonged exposure vs. sertraline), we used latent profile analysis (LPA) to examine baseline patterns of PTSD and dissociation symptoms and hierarchical linear modeling to examine these symptoms across treatment. Results did not support the presence of a dissociative subtype in our sample. The best fitting LPA model according to fit indices (BIC & BLRT) included four classes without a single distinct dissociative latent class. PE and sertraline did not differentially impact the relationship between dissociation and PTSD symptoms, β = -0.10, p = 0.21. Our findings, in a PTSD treatment seeking sample, are not consistent with either the distinctness of a dissociative subgroup nor a substantial impact of dissociation on treatment trajectories. Thus, the clinical utility of distinguishing those who dissociate remains unclear.

PTSD Treatment Outcomes, Race, and Cultural Identity
(Clin Res, Cul Div, Adult, M, Industrialized)

Kline, Alexander, BA¹; Cooper, Andrew, PhD¹; Feeny, Norah, PhD¹; Zoellner, Lori, PhD²
¹Case Western Reserve University, Cleveland, Ohio, USA
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African Americans are at greater risk of trauma exposure and posttraumatic stress disorder (PTSD) (Roberts et al., 2011), yet they are under-represented and more likely to drop out of clinical research studies (e.g., Lester et al., 2010). Moving beyond dichotomous racial categories and investigating within-group differences may increase understanding of relations between race and clinical outcomes (e.g., Williams et al., 2013) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care. We report on a series of analyses exploring race, socioeconomic status, cultural identity, and treatment outcomes in 130 Caucasians and 43 African Americans who received prolonged exposure or sertraline for chronic PTSD as part of a randomized trial. Ethnic identity and other-group orientation (OGO) were assessed with the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and enhance culturally competent care.
Despite prolonged exposure (PE) being an effective treatment for PTSD, some believe that the introduction of imaginal exposure leads to symptom increases (e.g., Kilpatrick & Best, 1984; Tarrier et al., 1999). We examine PTSD and depression symptom exacerbation, defined as a reliable increase in symptoms between sessions 3 and 4, in 200 patients with PTSD treated with either PE or sertraline (SER) as part of a doubly randomized preference trial. Preliminary results suggest no differences in either PTSD or depression symptom exacerbation between PE and SER conditions. A minority of patients experienced PTSD exacerbation (13.3% in PE; 5% in SER), and those patients were no more likely to drop out of treatment than those who did not experience symptom exacerbation. Those with and without symptom exacerbation did not differ on post-treatment PTSD, depression, or general functioning. A minority of patients experienced symptom exacerbation. Exacerbation was not related to dropout or treatment outcome, fitting with other PE symptom exacerbation findings (Jayawickreme et al., 2014; Foa et al., 2002). Clinically, these findings highlight similarities in exacerbation between PE and SER treatment, demonstrating that imaginal exposure is tolerable, and temporary symptom increases should not deter therapists or clients.
diverse group of male and female Veterans who have successfully completed the CBT treatment (SAMHSA) upon which the course is based. By featuring videos from those veterans as well as scenarios from their lives, it is more relevant and engaging to veterans. Pilot data will be presented to demonstrate ways this self-help course can be effectively used as an alternative or a complement to face-to-face interventions.

Using a Mobile Application in the Management of Anger Problems among Veterans: Preliminary Findings from a Randomized Control Trial
(Practice, Aggress-Clin Res-Clinical Practice, Adult, I, N/A)

Morland, Leslie, PsyD¹; Mackintosh, Margaret-Anne, PhD¹; Taft, Casey, PhD²; Marx, Brian, PhD²; Menez, Ursula, PsyD¹
¹National Center for PTSD, Pacific Island Division, VA Pacific Island Healthcare System, Honolulu, Hawaii, USA
²National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA

Anger is a common problem among Veterans with posttraumatic stress disorder (PTSD). Although anger management techniques and programs are abundant, access to and utility of these programs can be a challenge. Technological advances allow for the remote delivery of mental health services via mobile phone applications (apps). We will present findings from a recently completed DOD funded randomized trial evaluating a mobile app, Remote Exercises for Learning Anger and Excitation Management (RELAX), as an adjunct component to an evidence-based anger management treatment delivered to Veterans with anger problems and other PTSD-related symptomatology. Sixty-three Veterans enrolled in a therapist-guided anger management treatment in conjunction with the RELAX mobile app as compared to the anger management treatment minus the RELAX app completed assessments at pre-, post-, and 3 months post-treatment. Clinical outcomes data will include anger, PTSD, and depression outcome measures and improvements in social functioning. Qualitative data included Veterans’ and study therapists’ reported feedback regarding the acceptability of the technology and satisfaction with the RELAX app and suggestions for improvement. Veterans reported the RELAX app to be helpful and appreciated the functionality of the app. Findings will be discussed in terms of clinical implications for anger management.

Treating Problematic Anger In Military Personnel With PTSD: A Pilot Study

Cash, Richard, PsyD¹; Forbes, David, PhD²; Varker, Tracey, PhD²; Howard, Alexandra, BBSc, MPsys³
¹ACPMH, University of Melbourne, Carlton, Victoria, Australia
²Australian Centre for Posttraumatic Mental Health, University of Melbourne, Carlton, Victoria, Australia
³Australian Centre for Posttraumatic Mental Health, University of Melbourne, East Melbourne, Victoria, Australia

This paper will report on the initial findings of a pilot study of an anger-focussed intervention for military personnel with problematic anger and co-occurring PTSD. The managing anger study involved developing and evaluating the intervention, as well as evaluating the training and mentoring program within a military mental health service setting. The anger intervention comprises a 12 session cognitive behaviourally based treatment, designed to be delivered one-to-one by Defence mental health providers, and intended to reduce the impact of problematic anger. The intervention is being piloted with a group of 15 serving military personnel, predominantly with recent deployment experiences, who experience problematic anger in the context of diagnosed PTSD. The project involved the development of a manualised intervention, training of a small group of Defence mental health providers, delivery of the intervention at two locations, provision of expert clinical supervision, and evaluation of the clinical and program outcomes of the project. The paper will report on study outcomes, including effectiveness of training structure in imparting intervention skills and clinical outcomes for the participants involved.

Anger Reductions in Response to Evidenced-Based Treatment for PTSD
(Clin Res, Clin Res-Clinical Practice, Adult, I, Industrialized)

Mackintosh, Margaret-Anne, PhD; Willis, Emy, BA; Morland, Leslie, PsyD
National Center for PTSD - Pacific Island Division, VA Pacific Island Healthcare System, Honolulu, Hawaii, USA

Many believe that the dysfunctional levels of anger and aggression often comorbid with PTSD will resolve with successful evidence based Psychotherapy (EBP) for PTSD. Latent growth curve models were used to assess changes in trait anger symptoms in response to Cognitive Processing Therapy for PTSD in two studies. In a sample of 125 male Veterans, we found a statistically significant mean reduction of 2.2 points on the STAXI Trait Anger scale (TANG, SD = 10.8) at post-treatment, which was maintained at 3-month and 6-month; though clinically, these are small reductions. At baseline, 69.6% of men reported clinically dysfunctional levels of anger (scoring at 75th percentile or above on the TANG) with 55.2%, 55.2% and 53.8% remaining in this range at post-treatment, 3-month and 6-month follow ups. Analyses also showed that greater reductions on the TANG predicted increased quality of life related to relationships. In a sample of 126 female Veterans and civilians, we found similar reductions on the TANG (mean = 2.3, SD = 14.5). At baseline, 38.3% of women reported dysfunctional levels of anger with 25.0%, 21.4% and 24.2% in a similar range at follow up. Overall, small changes in trait anger symptoms were found in response to EBT for PTSD with a majority of participants with clinically significant anger symptoms at baseline continuing to experience dysfunctional levels of anger.
Prevalence and Correlates of Interpersonal Violence among a College Sample
(Clin Res, Acute-Rape, Adult, I, Industrialized)

Overstreet, Cassie, Doctoral Student; Hawn, Sage, BS; Conley, Abigail, PhD; Kendler, Kenneth, MD; Dick, Danielle, PhD; Amstadter, Ananda, PhD
1Virginia Institute for Psychiatric and Behavioral Genetics, VCU, Richmond, Virginia, USA
2Virginia Institute for Psychiatric and Behavioral Genetics, Richmond, Virginia, USA
3Virginia Commonwealth University, Richmond, Virginia, USA

Exposure to interpersonal violence (IPV), specifically sexual and physical victimization, has been linked with increased risk of psychopathology among college samples. Moreover, those possessing a history of lifetime IPV have reported higher rates of revictimization. The present study sought to examine the prevalence of pre-college IPV, college-onset exposure, and revictimization in addition to potential correlates of college-onset IPV among a large sample of undergraduate students (N=7,603; 61.1% female; M age=18.53, SD=6.5). Pre-college IPV was endorsed by 37.2% of the sample and 24.4% reported IPV since beginning college, with females endorsing greater exposure (27.1% vs. 20%, X2=38.54, p<.001). Five separate logistic regression analyses were conducted to determine predictors of college-onset IPV, using baseline predictor variables in five theoretically derived areas. Peer deviance, neuroticism, posttraumatic stress disorder, and a history of pre-college IPV were significantly associated with college-onset IPV (Range of ORs=1.07-3.47, ps=.001). Identification of factors contributing to exposure may potentially aid in determining those at greater risk thereby providing valuable information for the implementation of targeted prevention and intervention strategies.

Women in Pain: Improving Military Sexual Trauma (MST) Treatment for Women Veterans through Integrative Approaches for the Management of Physical and Emotional Pain
(Practice, Afect/Int-Assess Dxt-Health-Tech, Adult, I, Industrialized)

Cameron, Jennifer, PhD; Stratton, Kelcey, PhD; Overstreet, Cassie, Doctoral Student
1Hunter Holmes McGuire VA Medical Center, Richmond, Virginia, USA
2Virginia Institute for Psychiatric and Behavioral Genetics, VCU, Richmond, Virginia, USA

MST greatly impacts the physical and emotional health of women Veterans. Posttraumatic stress disorder (PTSD) is a common condition among Veterans who report MST; however, many physical health consequences, such as chronic pain, are also related to this experience. Significant disability and distress are associated with comorbid pain and PTSD, and it is critical to develop assessments and interventions that meet the needs of women Veterans who experience complex health problems related to military service. This study evaluates the development and implementation of an integrative treatment program for women Veterans with chronic pain and PTSD. Pilot results from a pre-post pain treatment study (N=75) showed improvements in negative pain-related thinking, depression, and pain-related disability (ds=.20-.39). These data informed the creation of a Women’s MST and Chronic Pain clinical program, in which evidence-informed behavioral interventions for chronic pain were combined with evidence-based treatments for PTSD, emotion regulation and distress tolerance skills, motivational interviewing, and wellness-focused practices. Therapies delivered via videoconferencing expanded access to care and provided an innovative treatment approach. Results discuss program outcomes and utilization of clinical science and technology to improve patient care via multidisciplinary treatment programs.

Sexual Trauma: The Complex Association between Neuroticism and Men’s Perpetration of Sexual Coercion in Couples from the Community
(Clin Res, Aggress-DV, Adult, I, Industrialized)

Daspe, Marie-Éve, PhD; Godbout, Natacha, PhD; Sabourin, Stéphane, PhD; Lussier, Yvan, PhD; Hébert, Martine, PhD; Lefebvre, Danielle, MA
1Université du Québec à Montréal (UQAM), Montreal, Quebec, Canada
2Laval University, Quebec, Quebec, Canada
3Université du Québec à Trois-Rivières (UQTR), Trois-Rivières, Quebec, Canada

Compared with other forms of intimate partner violence, little is known about sexual coercion (SC) and its correlates in intact couples from the general population. Among potential dispositional risk factors for SC, neuroticism has been related to various aspects of couple functioning, including psychological and physical aggression. Based on theoretical and empirical evidence, we hypothesised the existence of two maladaptive profiles on the neuroticism dimension and examined the curvilinear association between neuroticism and men’s SC. A total of 299 heterosexual couples from the general population completed measures of early exposure to interpersonal trauma, neuroticism and SC perpetrated by the male partner. Results showed that witnessing or experiencing violence in childhood is significantly associated with neuroticism. Path analyses confirmed that both lower and higher levels of neuroticism predict higher levels of men’s perpetrated SC, while low to moderate levels of neuroticism predict lower levels of men’s SC. Results are consistent based on both men’s report of perpetrated SC, and women’s report of experienced SC. These findings...
Women’s Mental Health Symptoms and Use of Supports Following Exposure to Intimate Partner Violence
(Practice, Chronic-Commun-DV, Adult, M, Industrialized)

Hebenstreit, Claire, PhD; DePrince, Anne, PhD; Maguen, Shira, PhD
1San Francisco VA Medical Center and UCSF, San Francisco, California, USA
2University of Denver, Denver, Colorado, USA

Intimate partner violence (IPV) researchers and advocates have called for adaptive, survivor-centered approaches to delivering victim services in ways that meet victims’ specific needs. Person-oriented approaches such as latent profile analysis (LPA) may provide an empirical basis for tailored victim outreach and intervention efforts for survivors of IPV. The current study utilized an LPA of depression, posttraumatic stress disorder (PTSD) symptoms, and dissociation symptoms to identify four distinct profiles within a sample of women exposed to IPV (N = 202): Low Symptoms (64% of sample); Intermediate Symptoms (19%); Intermediate Symptoms with Dissociation (8%); and High Symptoms (9%). ANOVAs were used to examine the association between profile membership and the use of four categories of support: (1) System-based support (e.g., advocates within the criminal justice system), (2) Peer support (e.g., friends or family), (3) Professional support (e.g., speaking with a therapist or doctor) and (4) Community-based support (e.g., contact with community-based agencies). Latent profile group was related to use of support, with certain groups (e.g., the Intermediate Symptoms with Dissociation profile) being less likely to contact community-based and professional supports. Findings support the use of more nuanced examinations of heterogeneous symptom patterns among women exposed to IPV.

Master Methodologist
Saturday, November 7
1:00 p.m. to 2:15 p.m.
Galerie 5 – Other Interventions Track

Integrating Expert Knowledge about Traumatic Stress into Statistical Models Assessing Individual Change over Time by Using Bayesian Statistics
(Res Meth, Acute-Assess Dx-Dev/Int-Res Meth, Lifespan, M, Global)

van de Schoot, Rens, PhD
Utrecht University, Utrecht, Netherlands

In statistics, tools have been developed to estimate the existence of latent trajectories, where individuals belong to trajectories that are unobserved, can be evaluated: Latent Growth Mixture Modeling (LGMM). Researchers typically have specific expectations about the outcomes of their study, in case of LGMM, these expectations might be concerned with the number and shape of latent trajectories. For example, most empirical evidence points to four distinct trajectories of PTSD patterns labeled as: resilient, recovery, chronic, and delayed onset trajectories. In addition to its low frequency, the later onset of this last trajectory may contribute to the fact that these individuals can be easily overlooked by professionals. Also, the default LGMM procedure often cannot ‘find’ this small but highly relevant subgroup. In this presentation I will introduce an alternative, theory-driven strategy where expert knowledge is used to inform the statistical model so that even a small subgroup can be found. With Bayesian statistics expert knowledge can be incorporated into the statistical analyses, via the so-called ‘prior distribution’. I will not only introduce Bayesian statistics, demonstrate how it can be applied to estimate PTSD trajectories and discuss advantages of a theory-driven procedure, but I will also show the dangers of letting subjective knowledge influence empirical outcomes.
Panel Presentation
Saturday, November 7
1:00 p.m. to 2:15 p.m.
Galerie 6 – Child Trauma track

Using Innovative Approaches to Better Meet Trauma and Behavioral Health Needs among Child Welfare Involved Youth
(Train/Ed/Dis, Assess Dx-CPA-Comm/Int, Child/Adol, M, Industrialized)

Jankowski, Mary, PhD; Scheeringa, Michael, MD, MPH; Barto, Beth, LMHC; Barnett, Erin, PhD
1Dartmouth College, Lebanon, New Hampshire, USA
2Tulane University Health Sciences Center, New Orleans, Louisiana, USA
3National Child Traumatic Stress Network, UCLA, Fitchburg, Massachusetts, USA

We will review recent efforts in three states for identifying, screening, and matching trauma interventions for youth involved in the child welfare system. Youth involved in the child welfare system have high rates of trauma and other behavioral health problems, and mental and behavioral health problems are major factors in disruption of placements and adoption outcomes (1, 2). Early identification of trauma and behavioral health needs, and improving access to effective and evidence-based trauma treatments for these youth have gained traction as ways to improve outcomes for this vulnerable population. We present approaches from Louisiana, Massachusetts and New Hampshire to demonstrate innovative system change across child welfare agencies and mental health providers to improve identification of youth with trauma and behavioral health needs, linking them to effective services, and monitoring receptivity of evidence-based treatments. Key findings will emphasize feasibility and implementation effectiveness within the unique situations of different states. Discussion will include methods for training caseworkers, choice of screening instruments, web-based screening, monitoring implementation, dissemination of screen results among stakeholders, methods for training mental health providers, and linking youth to appropriate services based on data-driven screen results.

Symposium
Saturday, November 7
1:00 p.m. to 2:15 p.m.
Acadia – Cognitive Processes/Interventions Track

Mechanisms Underpinning Intrusive Memories
(Bio Med, Anx-Cog/Int-Sleep, Adult, M, Industrialized)

Bryant, Richard, PhD
University of New South Wales, Sydney, New South Wales, Australia

A hallmark feature of posttraumatic responses are the unrelenting intrusive memories that people experience of the event. Although these are distinctive types of memories and hold a central position in most PTSD models, the mechanisms for their development and maintenance are not well understood. This symposium brings together four studies that have used different methodologies and different sorts of patients/participants to understand intrusions. These studies use a combination of clinical and analogue samples to test prevailing models of intrusion development and maintenance. These studies focus on such variables as sex differences, role of sleep, function of memory control, and role of appraisals in how memories are experienced as intrusive. Taken together, these findings provide experimental evidence concerning critical processes that need to be understood for optimal models of intrusive memories in PTSD.

The Impact of Appraisals on Intrusive Memories
(Bio Med, Bio Med-Cog/Int, Adult, M, Industrialized)

Bryant, Richard, PhD
University of New South Wales, Sydney, New South Wales, Australia

Intrusive memories are a core feature of posttraumatic stress disorder (PTSD). Cognitive models posit that PTSD symptoms are stimulated by maladaptive appraisals about symptoms. The causal pathway for this mechanism is untested. In this study 45 healthy participants were presented with a traumatic film, and were subsequently told (a) intrusions are indicative of poor psychological functioning, (b) intrusions are not indicative of psychological functioning, or (c) no instructions. Participants completed a measure of cognitive performance and also a scale of intrusive memories. Participants who were told that intrusions are indicative of negative psychological state subsequently reported more intrusive memories than those who were told that intrusions have no particular significance. This finding provides initial causal evidence that appraising intrusions as maladaptive may directly enhance the occurrence of intrusions following encoding of an aversive event, and in this sense is supportive of cognitive models of PTSD.
Endogenous Progesterone, not Estrogen, during Encoding Predicts Intrusiveness and Distress of Emotional Memories in Women


Kleim, Birgit, PhD
University of Zurich, Zürich, ZH, Switzerland

Intrusive memories are central to PTSD, and are more prevalent in women than in men. Recent evidence suggests that sex hormone levels are responsible for differences in processing emotional stimuli and may thus give rise to the observed sex differences in reexperiencing. Here we investigate the interactive role of estrogen and progesterone in the formation of intrusive memories following trauma exposure in the laboratory in healthy women. We exposed 59 female participants to a trauma film after they had provided saliva samples. All participants recorded intrusive memories in the week following the film. On average, participants reported 5 intrusive memories during the week following the trauma film (range 0–26). Those with higher progesterone levels prior to encoding the trauma film reported significantly more intrusive memories, r=.30, p=.029, while estrogen was not significantly associated. Moreover, progesterone predicted vividness and distress of intrusive memories over and above potential confounds, while estrogen or the interaction between progesterone and estrogen were not significant. Our results confirm that high progesterone at encoding emotional memories contributes to later reexperiencing of such memories. Assessing ovarian hormone levels may aid identification of trauma survivors at risk for chronic PTSD.

Memory Control Ability Predicts Reduced Posttraumatic Stress Disorder Symptoms after analogue Trauma

(Bio Med, Acute-Bio Med-Complex, Adult, M, Industrialized)

Michael, Tanja, PhD1; Streb, Markus, Doctoral Student2; Anderson, Michael, PhD2; Lass-Hennemann, Johanna, PhD3; Mecklinger, Axel, PhD1
1Saarland University, Saarbruecken, Saarland, Germany
2MRC Cognition and Brain Sciences Unit in Cambridge, Cambridge, England, United Kingdom

Most trauma survivors suffer from intrusive re-experiencing in the aftermath of trauma. For survivors' well-being, it is key that these intrusions are controlled. Memory control can be exerted through retrieval suppression (RS). Poor RS, however, should be associated with persistent distressing intrusions and posttraumatic stress disorder (PTSD). This study tested the hypothesis that individual differences in RS ability predict intrusive re-experiencing after trauma. RS was examined with the think/no-think task (TNT) using behavioral and event related potential (ERP) measures. Twenty-four healthy participants watched a traumatic film after having performed the TNT task. Intrusion frequency, intrusion distress and other PTSD-like symptoms from the trauma film were measured with an electronic diary and the Impact of Event Scale (IES). In line with our hypothesis, behavioral measures of RS ability predicted reduced distress ratings for intrusions (r=-.53, p<.01). Further ERP markers of RS (a fronto-centrally distributed N2) predicted reduced distress ratings of intrusions (r=-.45, p<.05) and reduced scores on the IES (r=-.49, p<.01).

Participants with lower RS ability exhibited PTSD-like symptoms after analogue trauma, suggesting that deficient memory control is a potential cause for developing PTSD.

Sex Differences in Intrusive Memories Following Trauma

(Bio Med, Bio Med-Bio/Int, Adult, M, Industrialized)

Felmingham, Kim, PhD; Chia Ming-Hsu, Ken, BBSc, MPaych; Zuj, Daniel, PhD Candidate; Nicholson, Emma, BSc Hons Psychology; Cushing, Pippa, BA (Hons); Gray, Kate, BA (Hons)
University of Tasmania, Hobart, Tasmania, Australia

Current models suggest that trauma memories are oversaturated in PTSD via the interaction of stress hormones, and recent evidence suggests there are sex differences in these effects. Specifically, recent research has found that stress and sex hormones may influence negative intrusive memories, with elevated cortisol, noradrenaline and estrogen predicting enhanced negative intrusions in healthy controls and individuals with PTSD. It is possible that greater negative intrusive memories in women may contribute to the female vulnerability for PTSD; yet no studies have examined sex differences and intrusive memories in PTSD. 119 participants (40 non-trauma-exposed controls (27 female, 13 male), 40 trauma-exposed controls (28 female, 14 male) and 39 patients with PTSD (23 female, 16 male) viewed negative IAPS images and completed a memory recall test and an intrusive memory diary two days later. Women exhibited greater memory recall and intrusive memories regardless of valence. After controlling for depression, women who had been trauma-exposed or who had PTSD reported significantly more intrusive memories than men, but this difference was not apparent in non-trauma exposed controls. This suggests that women may have greater intrusive memories following trauma than men, which is a potential vulnerability factor for developing PTSD in women.
Symposium
Saturday, November 7
1:00 p.m. to 2:15 p.m.
Salon A-C – Bio-Med/ Genetics Track

Preventing the Onset of PTSD; 
Integrating Basic Science into the 
Development of Novel Early Intervention Strategies
(Prevent, Acute-Bio Med-Clin Res-Prevent, Adult, A, 
Industrialized)

Sijbrandij, Marit, PhD1; Shalev, Arieh, MD, PhD2
1VU University, Amsterdam, Noord-Holland, Netherlands 
2New York University Langone Medical Center, New York, 
New York, USA

Until now, most brief early psychological interventions have 
been unsuccessful in preventing the onset of posttraumatic stress disorder (PTSD). Recently, novel psychological and 
pharmacological interventions have been proposed to 
prevent PTSD. These interventions are assumed to be 
successful in preventing PTSD’s onset by disrupting consolidation, facilitating extinction learning or impairing 
traumatic memory retrieval early after the traumatic 
experience. This symposium will give an overview of the 
effectiveness of pharmacological PTSD prevention, will 
present the effects of novel psychological and 
pharmacological strategies to prevent PTSD’s onset and will 
explore their underlying mechanisms. The results and the 
possibilities to implement them as part of for future PTSD prevention strategies will be discussed during the 
symposium.

Pharmacological Prevention of 
Posttraumatic Stress Disorder and Acute 
Stress Disorder: a Systematic Review 
and Meta-Analysis
(Prevent, Acute-Bio Med-Clin Res-Bio/Int, Adult, A, 
Industrialized)

Sijbrandij, Marit, PhD1; Kleboer, Annet, PhD1; Bisson, 
Jonathan, MD2; Barbul, Corrado, PhD2; Cuijpers, Pim, PhD1
1VU University, Amsterdam, Noord-Holland, Netherlands 
2Cardiff University School of Medicine, Cardiff, Wales, United 
Kingdom
4University of Bologna, Bologna, Italy

Pharmacotherapy was more effective in preventing PTSD or 
ASD than placebo or no intervention (13 studies, 1799 
individuals, IRR=0·65 (95% CI: 0·54 to 0·78), NNT=11·36), 
although no effect was found when only RCTs were included 
(10 studies, 326 individuals, IRR=0·69, 95%CI: 0·40 to 
1·21). Hydrocortisone showed a large effect in reducing the 
risk of PTSD (5 studies, 177 individuals, IRR=0·38, 95%CI: 
0·16 to 0·92). We conclude that no firm evidence was found 
for the efficacy of all early pharmacotherapies in the 
prevention of PTSD or ASD, but hydrocortisone reduced the 
risk of developing PTSD. The implications of these findings 
for the prevention of PTSD and ASD in emergency settings, 
and for future studies will be discussed.

The Effect of Intranasal Oxytocin 
Administration on PTSD Development in 
Recently Traumatized Individuals: a 
Randomized Controlled Trial

van Zuiden, Mirjam, PhD1; Frijling, Jessie, MSc1; Nawijn, 
Laura, MSc1; Koch, Saskia, MSc1; Golsling, J, PhD, MD1; 
Luitse, Jan, MD1; Blesheuvel, Tessa, MD2; Honig, Adriaan, 
PhD, MD1; Veitman, Dick, MD, PhD1; Olff, Miranda, PhD1
1Academic Medical Center, University of Amsterdam, 
Amsterdam, Noord Holland, Netherlands 
2VU University Medical Center, Amsterdam, Noord Holland, 
Netherlands
3Saint Lucas Andreas Hospital, Amsterdam, Noord Holland, 
Netherlands
4VU University, Amsterdam, Noord Holland, Netherlands 
5Academic Medical Center at the University of Amsterdam and 
Arg Psychotrauma Expert Group, Amsterdam, Noord- 
Holland, Netherlands

There is a need for novel preventive strategies for post- 
traumatic stress disorder (PTSD) that can be administered 
within the first weeks after trauma. We hypothesized that 
administration of the neuropeptide oxytocin may prevent 
PTSD development by regulating maladaptive fear and 
stress responses, as well as enhance social functioning. 
Here, we present results of a randomized placebo-controlled 
trial in recently traumatized individuals. Emergency room 
visitors with high levels of distress acutely post-trauma 
(n=120) were randomized to start a 7.5 day treatment- 
regimen of either intranasal oxytocin (40 IU/twice daily) or 
placebo (10 puffs/twice daily) within 10 days post-trauma. 
108 participants were included in the analyses (oxytocin: 
n=53; placebo: n=55). At 1.5 months post-trauma, total 
PTSD severity, as measured with the Clinician Administered 
PTSD Scale (CAPS) for DSM-IV, did not significantly differ 
between treatment groups. However, moderation analyses 
revealed that PTSD symptom severity prior to treatment 
initiation impacted effects of intranasal oxytocin, such that 
only participants with high levels of acute symptoms showed 
a beneficial effect of oxytocin on PTSD symptom severity. 
Thus, intranasal oxytocin administration commenced early 
post-trauma may be an effective strategy to reduce PTSD symptom development in individuals with high levels of acute 
PTSD symptoms.
Optimal Dose of Early Intervention to Prevent PTSD
(Clin Res, Acute-Clin Res-Prevent, Adult, A, N/A)

Rothbaum, Barbara, PhD, ABPP1; Post, Loren, PhD1; Price, Matthew, PhD2; Ressler, Kerry, MD, PhD1
1Emory University School of Medicine, Atlanta, Georgia, USA
2University of Vermont, Burlington, Vermont, USA

Posttraumatic stress disorder (PTSD) is the only anxiety disorder directly linked to a causal event. Early interventions immediately following trauma exposure may interrupt the consolidation of the fear memory and thus result in effective prevention of PTSD. In our pilot work, a 3-session exposure-based intervention begun within hours of trauma exposure significantly decreased PTSD and depression 1- and 3-months posttrauma compared to those who did not receive the intervention and seemed to mitigate a genetic risk for PTSD. In examining the optimal dose for the delivery of exposure therapy in the immediate aftermath of trauma, our ongoing study randomized patients presenting to the emergency department (ED) to a 3-session exposure intervention commencing in the ED, a 1-session exposure delivered in the ED, and assessment only. A mixed-effect model revealed a significant main effect for treatment (b = -9.54, p = 0.049), but not a significant effect for 1-month to 3-month change (b = -3.48, p = 0.095), or a treatment x condition interaction (b = 1.71, p = 0.471). The main effect for treatment suggested that those who received treatment had lower PTSD scores relative to controls at 1-month and 3-month.

Skin Conductance Level During Exposure Therapy in the Emergency Department Predicts Improvement in PTSD One Month Later

Jovanovic, Tanja, PhD1; Fiorillo, Devika, MA2; Post, Loren, PhD1; Rothbaum, Alex, BS1; Roffman, Rebecca, MA1; Michopoulos, Vasiliki, PhD, MSc1; Ressler, Kerry, MD, PhD1; Rothbaum, Barbara, PhD, ABPP1
1Emory University School of Medicine, Atlanta, Georgia, USA
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Skin conductance (SC), which is influenced by sweat gland activity, is a peripheral measure of sympathetic nervous system activity. It can be recorded non-invasively using mobile devices. The current study recorded SC levels during the delivery of imaginal exposure (IE) sessions in the immediate aftermath of trauma exposure, when patients presented to an Emergency Department. This is the first time that physiological reactivity has been measured during early interventions for posttraumatic stress disorder (PTSD), although PTSD has been associated with heightened SC for several decades (Michopoulos et al., 2015). SC levels were recorded using eSense (Mindfield, Inc) for iPad with two isotonic gel-filled Ag/AgCl electrodes attached to the fingers of the non-dominant hand. The study found that individuals randomized to receive exposure therapy (N=18) showed significantly less severe PTSD symptoms 1 month post-trauma than individuals randomized to an assessment-only group, p<0.05. Furthermore, the degree of SC habituation during the IE was predictive of decreased PTSD symptoms assessed at one month after trauma, p<0.05. On the other hand, the SC level at one month was positively correlated with PTSD symptoms, r<0.05. These preliminary data demonstrate feasibility and utility of collecting psychophysiological data during exposure therapy, even under challenging circumstances.
Symposium
Saturday, November 7
1:00 p.m. to 2:15 p.m.
Salon D – Public Health Track

Trauma and Women’s Health across Cultures: Basic Research to Inform U.S. and International Policies
(Global, Cul Div-Ethnic-Global, Adult, I, Global)

Wilson, Sarah, PhD Candidate; Gilmore, Amanda, PhD Candidate; Elmore, Diane, PhD, MPH
1VA Puget Sound Health Care System / Seattle Division, Seattle, Washington, USA
2University of Washington, Seattle, Washington, USA
3UCLA/Duke University National Center for Child Traumatic Stress, Washington, District of Columbia, USA

For women across the globe, the consequences of psychological trauma both include and extend beyond posttraumatic stress disorder. Global, national, and local policymakers have sought to reduce the incidence and burden of trauma for women, yet 35% of women worldwide have experienced either intimate partner violence or sexual violence and millions of women each year sustain a serious childbirth-related injury (WHO, 2014; Maternal Morbidity Working Group, 2015). This symposium will span a wide range of trauma-related women’s health issues, including sexual assault, maternal health, infectious disease, substance use, sexual health, and non-communicable disease. Amongst these topics, presentations will include data that spans a variety of geographic locations and ethnicities using both qualitative and quantitative methodology. Each presentation will address clinical and policy implications regarding trauma prevention, early treatment, and/or reduction of trauma-related health effects. Policies will relate to domestic and international healthcare, community safety, violence against women, and economic/social justice.

Protective and Risk Factors for Sexual Assault in College Women: Differences between Students with European Ancestry and Asian/Pacific Islander Ancestry
(CulDiv, Ethnic-Rape/Sub-Abuse, Adult, I, Industrialized)

Gilmore, Amanda, PhD Candidate; Granato, Hollie, PhD Candidate; Wilson, Sarah, PhD Candidate; George, William, PhD
1University of Washington, Washington, USA
2VA Puget Sound Health Care System / Seattle Division, Seattle, Washington, USA

Colleges are increasing their sexual assault prevention and risk reduction efforts due to the recent policy changes regarding sexual violence. Sexual assault prevalence rates differ by ethnicity, and students of Asian/Pacific Islander ancestry (APIA) tend to report lower prevalence rates than students of European ancestry (EA). These differences may be more marked in non-native English speaking (NNES) APIA students, possibly due to acculturation effects. The current study assessed college women using an online survey. A MANOVA examined differences between EA, APIA, and NNES-APIA students in sexual assault risk/protective factors. Results indicated that EA students had more severe pre-college sexual assault histories than APIA and NNES-APIA students. Heavy episodic drinking was least frequent among NNES-APIA students and most frequent among EA students. Hierarchical regression examined associations with sexual assault severity since entering college. Despite differences in pre-college sexual assault history, there were no differences between APIA and EA students on sexual assault severity since entering college. NNES-APIA students reported less college sexual assault. Heavy episodic drinking was a robust predictor of college sexual assault. Findings suggest specific strategies for college sexual assault risk reduction programs to benefit a diverse population of students.

Beyond Maternal Mortality: A Case for Emphasizing Maternal Morbidity, Traumatic Stress, and Recovery in Low-Income Countries
(Global, Acc/Inj-Global-Pub Health-Social, Adult, I, E & S Africa)

Wilson, Sarah, PhD Candidate; Watt, Melissa, PhD; Masenga, Gileard, MD; Sikkema, Kathleen, PhD
1VA Puget Sound Health Care System / Seattle Division, Seattle, Washington, USA
2Duke University, Durham, North Carolina, USA
3Kilimanjaro Christian Medical Centre, Moshi, Kilimanjaro, Tanzania

While maternal mortality has historically been the key indicator of international women’s health, focus has shifted recently to include maternal morbidities (non-fatal detrimental birth outcomes). Maternal morbidities may be highly comorbid with trauma and posttraumatic stress disorder (PTSD). This mixed-methods study examined PTSD in obstetric fistula (OF), a maternal morbidity that causes uncontrollable leaking of urine/feces from the vaginal canal. Participants were women receiving surgical OF repair at a Tanzanian medical center (n = 54), and a subset (n = 28) were followed 3 months after discharge. Linear regression was used to identify associations with PTSD symptoms at baseline and follow-up. In-depth interviews, completed prior to surgery (n = 45) and after discharge (n = 28), included discussion of emotions, relationships and memories. Baseline PTSD was associated with lifetime trauma, low social support, age and less time living with OF. At follow-up, PTSD was linked to low social support, childlessness and incontinence. Qualitative data suggested that shame and rejection had profound effects, and that social support and religious faith promoted resilience. Policy implications of results include mobilization of support for women with chronic maternal morbidities, integration of women’s mental healthcare and dissemination of culturally-collaborative interventions.
Sexual Trauma as a Risk Factor for Diabetes, TB, and HIV among South African Women
(Social, CSA-Global-Health-Rape, Adult, I, E & S Africa)

Choi, Karmel, MA1; Watt, Melissa, PhD1; Skinner, Donald, PhD2; Kalichman, Seth, PhD3; Sikkema, Kathleen, PhD1
1Duke University, Durham, North Carolina, USA
2Stellenbosch University, Tygerberg, Cape Town, South Africa
3University of Connecticut, Storrs, Connecticut, USA

In South Africa, chronic illnesses such as tuberculosis (TB) and HIV are common, with non-communicable diseases such as diabetes also increasing rapidly. The legacy of apartheid and ongoing racial and gender disparities have contributed to high rates of sexual trauma in contexts of poverty and alcohol abuse. This study examined the relationship between sexual trauma and self-reported lifetime diabetes, TB, and HIV among 547 women recruited from alcohol-serving venues in South Africa. Lifetime diabetes (15%), TB (24%), and HIV (13%) were prevalent in this sample. Childhood sexual abuse (CSA) and recent adult sexual victimization (ASV) were common, at 26% and 14% respectively. Logistic regression models were adjusted for ethnicity and age. CSA and ASV each predicted diabetes, though CSA predicted diabetes after controlling for ASV, suggesting an independent pathway. CSA predicted TB, while ASV only marginally predicted TB. CSA and ASV both predicted HIV, though CSA did not predict HIV after controlling for ASV, suggesting a mediated pathway. Early and recent sexual trauma may increase risk for common health conditions among South African women. Policies to prevent sexual trauma and revictimization through economic and social empowerment will be discussed, as well as strategies to strengthen the capacity of clinical and community settings to address trauma among women and girls.

The Disproportionate Impact of Intimate Partner Violence and HIV Risk among Black/African American Women in the United States
(Prevent, DV-Health-Pub Health-Social, Adult, I, Industrialized)

Andrasik, Michele, PhD
University of Washington, Seattle, Washington, USA

Black women are far more affected by HIV than women of other races. Although clear links between social and structural factors and increased HIV and STI risk for African American women have been documented in the literature, we know little about the impact of these factors on the quality of relationships between men and women and how these relationship dynamics impact risk for young Black women. For many women the disproportionate impact of several factors converge increasing exposure to violence and experiences of abuse. In the US, lifetime prevalence of Intimate partner violence (IPV) for women is alarmingly high (prevalence rates as high as 1 in 3) and IPV disproportionately impacts African American women. IPV is associated with reduced consistent condom use and increased risk for HIV infection. We present data from a qualitative study with African American women (N=12) to explore the impact of structural forces on IPV and African American female adults' dating and sexual behavior. Recommendations for HIV prevention interventions that include micro (condom self-efficacy, self-esteem) and macro (social justice systems, poverty, discrimination) level approaches will be discussed. These highlight the need for policy changes which have the potential to positively impact a broad range of outcomes beyond those traditionally impacted by HIV prevention research.
Symposium
Saturday, November 7
1:00 p.m. to 2:15 p.m.
Salon E – Military Track

Moral Injury, Spirituality, and Military Trauma: Probing into the Clinical Implications of Treating Morally Injured Patients
(Practice, Clin Res-Mil/Vets, Adult, M, Industrialized)

Currier, Joseph, PhD1; Nieuwom, Jason, PhD2
1University of South Alabama, Mobile, Alabama, USA
2Department of Veteran Affairs Medical Center, VISN 6 Mental Illness Research, Education, and Clinical Center, Durham, North Carolina, USA

There is consensus that posttraumatic symptoms can emerge for military populations from a more diverse set of stressors and entail a wider realm of problems than clinicians/researchers have historically appreciated. Moral injury is an emerging construct to more fully capture the negative consequences associated with traumas and high magnitude stressors that transgress service members’ deeply held values/beliefs (for reviews, see Farnsworth et al., 2014; Litz et al., 2009; Shay, 2014). In accordance with recent changes in criteria for PTSD, morally injurious experiences can occur via direct experiences as a victim or agent of trauma as well as indirect forms of exposure. As such, although formal research has just begun, morally injured patients may present a constellation of emotions (e.g., inappropriate guilt, shame), attitudes/beliefs (e.g., poor self-worth, fatalism/alienation), and behaviors (e.g., self-handicapping, self-harm) that entail salient spiritual/existential dimensions. The multi-faceted nature of moral injury raises questions for mental health providers about appropriate treatment approaches and need for collaboration with chaplains and other pastoral professionals. The overall purpose of this symposium is to summarize advances in empirical research on moral injury and discuss clinical implications for addressing spirituality among morally injured patients.

A Clinician’s Guide to Spiritual Resources for War-Related Moral Injury
(Practice, Cul Div-Mil/Vets-Theory, Adult, M, Industrialized)

Wortmann, Jennifer, PhD1; Eisen, Ethan, MPhil2; Hundert, Carol, BS3; Littr, Brett, PhD4
1Massachusetts Veterans Epidemiological Research and Information Center, VA Boston Healthcare System, Boston University, Boston, Massachusetts, USA
2Massachusetts Veterans Epidemiology Research and Information Center, Boston, Massachusetts, USA
3Boston VA Healthcare System, Boston, Massachusetts, USA
4VA Boston Health Care System/Boston University, Boston, Massachusetts, USA

Transgressions during war that violate deeply held moral beliefs and expectations may lead to moral injury and associated spiritual distress (Litz et al., 2009). Helping veterans who are grappling with spiritual or religious issues is an aspect of multicultural competence (Vieten et al. 2013) and falls within the scope of practice of professional mental health care providers, yet clinicians do not address these issues adequately (Hage et al., 2006). We argue that providers would improve their assessment and treatment of military personnel and veterans by gaining an understanding of the language and perspectives of various spiritual (faith-based and philosophical) traditions on transgression and the processes of forgiveness and healing. In this presentation, we provide an overview of the source of moral codes associated with various traditions; discuss aspects of warzone events that may violate those moral codes and common reactions to those violations; describe ways that spiritual traditions approach making amends for misdeeds and resolve the negative outcomes of these violations; and describe possible pitfalls that service members and veterans may encounter based on their understanding of religious or spiritual codes.

Moral Injury, Spiritual Injury, and Alcohol Use among Active Duty Military Members and Veterans
(Assess Dx, Assess Dx-Cul Div-Sub/Abuse-Mil/Vets, Adult, M, N/A)

Holllis, Brittany, BS; Kelley, Michelle, PhD; Robbins, Allison, BA (Hons)
Old Dominion University, Norfolk, Virginia, USA

Military personnel serving in combat zones are confronted with morally and ethically challenging situations. Morally and ethically challenging experiences, such as acts of betrayal and engaging in disproportionate violence, may result in serious internal conflict due to violations of core belief systems which in turn can manifest as persistent guilt, changes to religious/spiritual beliefs, and other psychological consequences. In a cross-sectional study, 387 active duty military personnel and veterans completed questionnaire including the Moral Injury Questionnaire – Military Version, Spiritual Injury Scale, and Alcohol Use Disorder Identification Test. We investigated relationships between morally injurious combat experiences, spiritual well-being, and alcohol use among military members and veterans. Those who reported experiencing more moral injurious events reported lower spiritual functioning and more changes in religious/spiritual beliefs (e.g., questioning God, loss of meaning, and unjust treatment by God) post combat (F = 14.34, p < .001). Additionally, higher rates of moral injury and spiritual injury were significantly associated with higher rates of alcohol use (F = 2.41, p < .001; F = 3.40, p < .001). Findings suggest the need for additional research to understand how moral injury may be associated with spiritual beliefs and alcohol use in military personnel.
On the Front Line Addressing Moral Injury: A Survey of VA/DoD Chaplains and Implications for Mental Health Collaboration

(Clin Res, Clin Res-Complex-Train/Ed/Dis-Mil/Vets, Other, M, N/A)

Buck, Pamela, MA
Durham VA Medical Center, Durham, North Carolina, USA

With veterans returning home from recent conflicts, there has been increasing attention to the topic of moral injury, which clearly beckons toward the domain of spiritual care providers – particularly, VA and military chaplains. We assessed chaplains’ experience with moral injury in a nationwide survey of all full-time VA chaplains and all active duty DoD chaplains (N = 2,163; response rate of 75% in VA and 60% in DoD). VA chaplains were more likely than DoD chaplains to report “frequently” seeing moral injury (46% vs. 14%, p < .001), though nearly equivalent percentages reported feeling “very prepared” to address moral injury (66% in VA, 62% in DoD). Chaplains were more likely to report seeing moral injury if they spent more time in mental health settings (r = .24, p < .001), had prior training in mental health (r = .15, p < .001), and frequently exchanged referrals with mental health providers (r = .28, p < .001). Additionally, chaplains who reported more regularly using CBT-based practices in their work were more likely to report feeling prepared to address moral injury (r = .25, p < .001). These findings point to the value of further training chaplains in appropriate CBT-based principles, such as Acceptance and Commitment Therapy. Finally, innovative collaborations integrating chaplains and mental health professionals to address moral injury will be discussed.

Spirituality Factors in the Prediction of Outcomes of PTSD Treatment for Military Veterans

(Clin Res, Clinical Practice-Mil/Vets, Adult, M, Industrialized)

Currier, Joseph, PhD1; Holland, Jason, PhD2; Drescher, Kent, PhD3
1University of South Alabama, Mobile, Alabama, USA
2University of Nevada, Las Vegas, Nevada, USA
3The Pathway Home - California Transition Center for the Care of Combat Veterans, Menlo Park, California, USA

Spirituality is a multifaceted construct that may affect Veterans’ recovery from PTSD in adaptive and maladaptive ways. Drawing on a cross-lagged panel design, this study examined longitudinal associations between spirituality and PTSD among 532 Veterans in a residential treatment program for combat-related PTSD. Results indicated that spirituality factors at the start of treatment were uniquely predictive of PTSD symptoms at discharge, when accounting for combat exposure and both synchronous and autoregressive associations, βs = 0.10 to 0.16. Specifically, Veterans who scored higher on adaptive dimensions of spirituality (daily spiritual experiences, forgiveness, spiritual practices, positive religious coping, organizational religiousness) at intake fared better in treatment. In addition, spiritual struggles (operationalized as negative religious coping) at baseline were predictive of poorer PTSD outcomes. In contrast to these results, PTSD symptom severity at baseline did not predict any of the spirituality variables at post-treatment. In keeping with a spiritually-integrative approach to treatment, these results suggest that understanding the possible spiritual context of Veterans’ trauma-related concerns might add prognostic value and equip clinicians to alleviate PTSD among those Veterans who possess spiritual resources and/or are somehow struggling in this domain.
Evidence of Reduced Cortical Thickness in Combat Exposed Veterans Regardless of Early Life Trauma History
(Bio Med, CPA-Chronic-Mi/Vets-Neuro, Adult, M, Industrialized)

Averill, Lynnette, PhD1; Abdallah, Chadi, MD2; Levy, Ifat, PhD2; Harpaz-Rotem, Ilan, PhD2
1National Center for PTSD - Clinical Neurosciences Division, West Haven, Connecticut, USA
2Yale University School of Medicine, National Center for PTSD, West Haven, Connecticut, USA

Early life trauma (ELT) influences neural development and heightens risk of developing psychological disorders and vulnerability to negative outcomes following future exposure. Evidence suggests reduced cortical thickness (CT) in Veterans exposed to ELT. We examined the effect of combat exposure on CT, controlling for ELT. Analyses consisted of 21 OEF/OIF/OND combat-exposed Veterans with PTSD and 20 non-PTSD controls (mean age 32.7) who completed the Combat Exposure Scale and Childhood Trauma Questionnaire. Using cluster-wise correction (p<0.05), combat exposure was negatively correlated with CT in the left rostral-lateral prefrontal and insular cortices. PTSD by CES interactions were found in the insula with stronger negative correlation with CES in non-PTSD Veterans. The results indicate combat exposure affects cortical structure beyond possible alterations due to ELT, highlighting the need for careful assessment of combat exposure in returning Veterans. These brain regions are associated with memory, emotion dysregulation, perception, and awareness. The nature of combat, requiring heightened awareness of self and surroundings, continual sensory input, and regular manipulation/retrieval of data, may influence the demonstrated structural alterations. Impact of multiple deployments, time since deployment, and potential vulnerabilities and protective factors should be examined.

Disruptions in Affect Regulation Circuitry in Acute Trauma Survivors Predicts Chronic PTSD
(Bio Med, Acc/Inj-Acute Neuro, Adult, M, Industrialized)

Larson, Christine, PhD1; deRoon-Cassini, Terri, PhD1; Taubitz, Lauren, PhD Candidate1; Hanson, Jessica, BA1; Belleau, Emily, MS, PhD Student1
1University of Wisconsin - Milwaukee, Milwaukee, Wisconsin, USA
2Medical College of Wisconsin, Milwaukee, Wisconsin, USA

Trauma exposure is extremely common and increases risk for a host of negative health outcomes, most notably posttraumatic stress disorder (PTSD). Unfortunately, despite some progress, determining which acutely traumatized individuals are at risk for chronic PTSD remains difficult. Furthermore, the neural mechanisms predicting longitudinal risk for PTSD are almost completely unexplored. To advance prediction of risk for chronic PTSD, we measured recruitment of the neural circuitry instantiating emotion regulation within two weeks of trauma exposure and the extent to which these neural markers predicted symptoms of distress-related psychopathology six months post-trauma. Aberrant activation and connectivity of the amygdala, cingulate cortex, dorsolateral and medial frontal cortex and other emotion regulation regions during both viewing of affective faces and resting state strongly predicted anxiety, depression, and PTSD symptoms at six-month follow-up (whole brain corrected for multiple comparisons, p<.05). These results point to specific mechanisms underlying acute post-trauma emotion dysregulation that can be targeted to better identify trauma survivors at risk for chronic posttrauma distress, and potentially to optimize early interventions.

Differential Brain Structural Characteristics of Pre-existing Vulnerability Factors for the Post-Traumatic Responses between Young Adults and Children
(Bio Med, Nat/Dis, Child/Adol, M, Industrialized)

Sekiguchi, Atsushi, MD, PhD1; Kotozaki, Yuka, PhD2; Sugiuira, Motoaki, MD, PhD1; Takeuchi, Hikaru, PhD2; Taki, Yasuyuki, PhD, MD1; Kawashima, Ryuta, PhD, MD2
1Tohoku Medical Megabank Organization, Tohoku University, Sendai, Miyagi, Japan
2Tohoku University, Sendai, Miyagi, Japan

The objective of this presentation was to clarify the differential characteristics of the brain structural changes as a vulnerability factor of posttraumatic stress responses between young adults and children. Our recent longitudinal investigations before and after the 2011 Japanese earthquake revealed the causal relationships between brain structural changes and posttraumatic responses both in normal young adults (Sekiguchi 2013, 2014) and children (Sekiguchi in preparation). The results demonstrate that the smaller right anterior cingulate volume and the smaller white matter integrity (WMI) in the right anterior cingulum were the pre-existing vulnerability factors in the young adults. On the other hand, the larger hippocampal volume and the larger WMI in the anterior cingulum were the pre-existing vulnerability factors in the children. The main different point was that the smaller volume and integrity in the young adults were risks for posttraumatic responses, whereas the larger ones were in the children. The effect of the maturation and development in the stress related brain areas, such as anterior cingulate cortex and hippocampus, will be discussed.
This panel will discuss the impact of trauma on the mental health of death row inmates and the ways in which their symptoms, in concert with institutional failure and lack of access to trauma-informed assessment and treatment, contributed to their criminal behavior. Death sentences in the U.S. are overwhelmingly visited upon men with childhood histories of extreme polytraumatization. This population is largely invisible to the trauma community and prevention is sorely needed. We will use case examples to illustrate the multigenerational histories of trauma typical of this population. Most death row inmates were exposed as children to multiple adverse childhood events but lacked access to trauma-informed and culturally competent mental health evaluations. Instead, their symptoms of complex trauma were stigmatized and misdiagnosed as Conduct Disorder, ODD, and ADHD, and their multiple comorbidities went untreated. The “school to prison pipeline” placed these at-risk children on an increasingly dangerous and punitive developmental trajectory during which they were exposed to inhumane and violent conditions of confinement in juvenile facilities, and later in prison, which mirrored their earlier experiences of trauma. This population is largely invisible to the trauma community and prevention is sorely needed. We will discuss how traumatized and impoverished children should be assessed and treated to avoid the ultimate adverse pathway: a sentence of death.
Consciousness (TRASC) along four dimensions: 1) one’s experience of time and memory, 2) thought, 3) one’s body, and 4) emotion. This presentation will examine experiences of TRASC in light of the predictions of the 4-D model in 3 samples: 1) Online community (N=2507), 2) Acutely traumatized ER sample (n=180), and 3) BPD with (n=126) versus without (n=132) comorbid PTSD. Results accrued to date are generally consistent with the hypotheses of the 4-D model that, relative to symptoms of NWC-distress, experiences of TRASC will: 1) be endorsed less frequently, 2) be co-endorsed less frequently, 3) predict incremental variance in measures of dissociative experiences, and 4) be more specific to a history of childhood traumatization. We conclude that results to date support the 4-D model and an elaborated notion of a dissociative subtype of PTSD. Ongoing neurophenomenological research studies to distinguish TRASC from NWC-distress will also be described.

Self-Reference in Borderline Personality Disorder: Alterations in Emotional Evaluations

Winter, Dorina, PhD Candidate1; Herbert, Cornelia, PhD2; Koplin, Katrin, MSc3; Bohus, Martin, MD4; Schmahl, Christian, MD5; Lis, Stefanie, PhD6
1Central Institute of Mental Health, Dept. of Psychosomatic Medicine, Mannheim, Baden-Württemberg, Germany
2Ulm University, Ulm, Baden-Württemberg, Germany

Introduction: Social interactions are influenced by the extent to which people tend to refer (emotional) information to themselves or others. This process was suggested to be disturbed in patients with borderline personality disorder (BPD). Thus, this study aimed to investigate self-referential processing in BPD and its modulations by the valence of its content. Methods: 30 BPD patients and 30 healthy control participants rated negative, positive and neutral words paired with self-, other- or no reference. Afterwards, depth of mental processing was measured using a recall and a recognition task. Results: BPD patients rated self-referential, positive words as less positive than healthy controls. This was not the case for negative or neutral words nor for words with other-reference. This devaluation of self-referential, positive words was related to psychometric measures of attributional style. There was no difference between groups regarding the effect of reference or the interaction of valence and reference for the memory tasks. Conclusions: Our findings suggest a self-referential devaluation bias for positive information in BPD. Implications for problems in social interactions and therapeutic implications will be discussed.

Dealing with Interpersonal Evaluations: Affective and Neural Responses in Borderline Personality Disorder
(Clin Res, Affect/Int-Cog/Int-Complex-Neuro, Adult, M, Industrialized)

van Schie, Charlotte, PhD Candidate1; Chiu, Chui-De, PhD, MSc2; van Klaveren, Bert, PhD Candidate1; van den Bulk, Bianca, PhD Candidate3; Rombouts, Serge, PhD2; Heiser, Willems, PhD1; Elzinga, Bernet, PhD1
1Leiden University, Leiden, Netherlands
2Chinese University of Hong Kong, North Territory, Hong Kong SAR, China
3Leiden University Medical Center, Leiden, Netherlands

Fragile self-image, identity disorder, and unstable relationships are key problems for patients with Borderline Personality Disorder (BPD) (Lieb et al., 2004; Gunderson, 2007). These dysfunctions could stem from greater sensitivity and reactivity to potential rejection and additional difficulties with emotion dysregulation. The current study investigated the affective and neural responses in BPD patients (N = 25) to negative, neutral and positive interpersonal feedback compared to healthy controls (HC) (N = 35) and low self-esteem controls (LSE) (N = 18). Preliminary results show that, compared to HC’s, BPD patients report a decrease of state self-esteem and an increase in anger in reaction to the feedback. In general, the negative feedback was received as more negative than neutral and positive feedback and the positive feedback as more positive than the neutral and negative feedback as reflected in participants’ mood ratings after each feedback word. However, compared to HC’s, BPD patients reported a more negative mood after neutral and positive feedback, but not after negative feedback, suggesting that BPD patients particularly have difficulties to benefit from positive feedback. At the time of the conference, data collection will be completed and the latest results including the neuroimaging findings will be presented at the symposium.

Impact of Dissociative States on Psychophysiological Reactivity to Trauma-Related Interpersonal Cues in Borderline Personality Disorder
(Bio Med, Affect/Int-Chronic-Cog/Int-Complex, Adult, M, Industrialized)

Krause-Utz, Annegret, PhD, MSc1; Winter, Dorina, PhD Candidate2; Bohus, Martin, MD3; Schmahl, Christian, MD2; Elzinga, Bernet, PhD1
1Leiden University, Mannheim, Baden Württemberg, Germany
2Central Institute of Mental Health, Dept. of Psychosomatic Medicine, Mannheim, Baden-Württemberg, Germany
3Leiden University, Leiden, Netherlands

Borderline Personality Disorder (BPD) is characterized by emotion dysregulation and stress-related dissociation. Current conceptualizations of dissociation propose blunted psychophysiological reactivity to trauma-related stressful stimuli during dissociative states. The objective of our study was to investigate the influence of dissociative states on heart rate and skin conductance response to disturbing
emotional (trauma-related) information in two independent samples of BPD patients. Female medication-free BPD patients with a history of interpersonal trauma and female healthy controls (HC, matched for age and education) performed a Sternberg item recognition task, while being distracted by neutral versus negative (trauma-related) interpersonal pictures ('Emotional Working Memory Task', EWMT). The first sample of BPD patients was split into two subgroups based on self-reports of current dissociation (high dissociation: n=11, low dissociation: n=11). In the second sample, 32 BPD patients were exposed either to a personalized script that induced dissociation or to a neutral script before performing the EWMT. Behavioral task performance (reaction times, accuracy), heart rate, and skin conductance response were assessed and evaluated. Results of both studies will be discussed in the context of previous research and regarding clinical implications.
Symposium
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Galerie 2 – Cognitive Processes/Interventions

The Role of Homework Completion in Evidence-Based Treatment for PTSD: Results across Three Studies of Cognitive Processing Therapy
(Clin Res, Clinical Practice-Cog/Int-DV-Mil/Vets, Adult, I, Industrialized)

Fleming, CJ, PhD1; Wachen, Jennifer, PhD2
1Duke University School of Medicine, Durham, North Carolina, USA
2National Center for PTSD / Boston University, Boston, Massachusetts, USA

Assignment of out-of-session practice, or homework, is a common occurrence in cognitive-behavioral therapies. Although results regarding the importance of homework are mixed overall, meta-analysis has suggested that generally those treatments that include homework are more effective than those that do not, with moderate effect size (Kazantzis, Whittington, & Feeny, 2014; Ho & Lee, 2012). The current symposium will explicate findings regarding the role of homework completion in Cognitive Processing Therapy (CPT) for PTSD. CPT has been shown to be an effective treatment for PTSD in several settings (e.g. Resick et al., 2008; Resick et al., in press), but the impact of homework in this treatment is currently undetermined. In this symposium, presenters will discuss findings regarding homework in CPT with female civilian interpersonal trauma survivors in both individual 12-session and variable-length CPT, as well as with active duty service members in group CPT.

The Impact of Homework Completion on Symptom Change in Cognitive Processing Therapy for PTSD
(Clin Res, Clin Res-Clinical Practice, Adult, I, N/A)

Gutner, Cassidy, PhD1; Wiltsie Stirman, Shannon, PhD2; Adier Mandel, Abby, PhD3; Calloway, Amber, MA4; Resick, Patricia, PhD5
1National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
2Boston VA Healthcare System, Boston, Massachusetts, USA
3University of Pennsylvania, Philadelphia, Pennsylvania, USA

I Had Homework? An Investigation of Homework Compliance and Outcomes During CPT
(Clin Res, Clin Res-Clinical Practice-DV-Rape, Adult, I, Industrialized)

Gloth, Chelsea, Doctoral Student; Galovski, Tara, PhD
University of Missouri St. Louis, St. Louis, Missouri, USA

The temporal relationship between homework completion and PTSD symptom change was examined in the context of two randomized controlled trials of Cognitive Processing Therapy (CPT) for PTSD. Over 100 women with PTSD following sexual or physical abuse that attended at least one session of CPT or CPT-C and were assigned practice assignments were examined. Practice assignment completion was assessed at each session and self-report PTSD symptoms were assessed weekly using. Repeated measures regressions were conducted to examine completion of practice assignments as a predictor of week-to-week symptom change over the course treatment. For CPT, week-to-week analyses found that more engagement in practice assignments from sessions 2 and 3 and session 6 and 7 predicted greater PTSD symptom reduction in the subsequent symptom assessment. Use of ABC worksheets was a significant predictor of subsequent symptom change between sessions 2 and 4, while reading the trauma account and reading the safety module were each significant predictors of subsequent symptom change between sessions 6 and 8. Additionally, less engagement in practice assignments assigned in sessions 4 and 5 predicted greater PTSD symptom reduction in the subsequent symptom assessment. Results for CPT and CPT-C and implications for routine care and research will be discussed.
sample consisted of 75 participants. Implications of the contributions of homework to change in PTSD and depression will be discussed.

Examining Outcomes of Group Cognitive Processing Therapy for Active Duty Military: The Role of Practice Assignment Completion
(Clin Res, Clinical Practice-Cog/Int-Mili/Vets, Adult, I, Industrialized)

Fleming, CJ, PhD; Wachen, Jennifer, PhD; Molino, Alma, PhD; Resick, Patricia, PhD
1Duke University School of Medicine, Durham, North Carolina, USA
2National Center for PTSD / Boston University, Boston, Massachusetts, USA
3University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA
4Duke University Medical Center, Durham, North Carolina, USA

Cognitive Processing Therapy (CPT) has recently been shown to be effective in group format with an active duty military population (Resick et al., in press). The current study sought to extend these findings by examining the role of practice assignment completion and treatment expectancy on outcomes in this sample. Participants included 56 active duty service members (93% male, 63% Caucasian, average age 32 years). Data were analyzed using mixed effects regression models. PTSD (PCL-S) and depression (BDI-II) symptoms at post-treatment and 6-month and 1-year follow-ups were predicted with baseline symptoms, number of sessions attended, average participation in practice assignments, and beliefs about credibility and expectancy of therapy as covariates. Participants attended an average of 8 sessions, had an average expectancy score of 30 (range 8-52) and an average of 2 completed practice assignments per session. Findings suggest that practice assignment completion does not appear to be related to PTSD outcome (p=.82) or depression outcome (p=.46), while credibility/expectancy was related to both PTSD and depression outcomes (p<.001). This finding may be related to the relatively low completion of practice assignments by active duty service members in the group setting. Further implications are discussed.

Symposium
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Galerie 3 – Affective Processes/Interventions Track

Intervening with Elementary School Children Exposed to Trauma: Effectiveness of a School-based Intervention and Recommendations for Implementation

Santiago, Catherine, PhD; Raviv, Tali, PhD
1Loyola University Chicago, Chicago, Illinois, USA
2Ann & Robert H. Lurie Children's Hospital of Chicago, Feinberg School of Medicine Northwestern University, Chicago, Illinois, USA

Children of ethnic minority, urban and low socioeconomic status are disproportionately affected by trauma (Stein et al., 2003) and yet are least likely to receive care (Kataoka et al., 2002). School-based interventions hold promise for increasing access to high quality services for students in need of mental healthcare. Bounce Back is a newly developed early intervention program for elementary school students exposed to trauma, developed in response to the need for school-based programs targeting young traumatized children. Programs that start early help to support children by reducing symptoms, promoting academic success, and strengthening coping skills at a young age (Cohen, 2003; Smith et al., 2007). The first presentation in this symposium examines the first trial of Bounce Back conducted in California (N = 74), which demonstrated preliminary effectiveness. The second presentation is a replication trial (N = 45) conducted with a low-income and highly distressed sample in the Chicago area. The third presentation examines the role of parents in Bounce Back and whether their involvement moderates treatment outcomes. Finally, a discussant will synthesize these findings and their implications for further implementation and dissemination of Bounce Back nationwide.

Bounce Back: Development and Preliminary Evaluation of an Intervention for Elementary School Children Exposed to Traumatic Events

Langley, Audra, PhD; Jaycox, Lisa, PhD; Gonzalez, Araceli, PhD
1UCLA, Los Angeles, California, USA
2RAND Corporation, Arlington, Virginia, USA
3California State University, Long Beach, Long Beach, California, USA

School children, especially in high risk communities, are exposed to high rates of traumatic events, and schools are often the most
common point of entry for mental health services. A school-based intervention for elementary students, Bounce Back, was developed through a community-research partnership, building on earlier work for older students. We evaluated Bounce Back, as delivered by school-based clinicians, in Title I elementary schools. During screening, 29% of 417 students met eligibility criteria (trauma exposure and current PTSD symptoms). Participants in the evaluation were 74 school children (grades 1-5) and their primary caregivers, randomized to immediate or delayed (3-month waitlist) intervention. Bounce Back was implemented with high fidelity, and participants had high satisfaction with the intervention. Compared to children in the delayed condition, those who immediately received Bounce Back showed significantly greater improvement in parent- and child-reported posttraumatic stress and child-reported anxiety symptoms over the 3-month intervention period; gains were maintained at the 6-month assessment. Those in the delayed intervention group showed similar gains when they received Bounce Back. Findings support the feasibility, acceptability, and effectiveness of Bounce Back for ethnically-diverse children with traumatic stress.

Intervening with Elementary School Students Exposed to Trauma: A Replication Trial
(Clin Res, Chronic-Cog/Int Div Fam/Int, Child/Adol, M, Industrialized)

Santiago, Catherine, PhD1; Raviv, Tali, PhD2; Ros, Anna, BA1; Fuller, Anne, MA, PhD Student1; Lewis, Krystal, PhD3; Cicchetti, Colleen, PhD2
1Loyola University Chicago, Chicago, Illinois, USA
2Ann & Robert H. Lurie Children's Hospital of Chicago, Feinberg School of Medicine Northwestern University, Chicago, Illinois, USA
3University of Illinois Chicago, Chicago, Illinois, USA

Despite the number of students exposed to trauma and in need of treatment, many students do not receive care (Kataoka et al., 2002). School-based interventions increase access to mental healthcare for students who typically do not access these resources (Jaycox et al., 2010; Santiago et al., 2013). There are few treatments for elementary students available in schools. Bounce Back is a promising school-based early intervention for young students exposed to trauma that has undergone one randomized-controlled trial. This study provides the first replication trial for the effectiveness of Bounce Back. Participants included 43 1st-4th graders (M = 7.80; 58% male; 88% Latino) identified by school social workers to have elevated PTSD symptoms. Students were randomly assigned immediate treatment or to a waitlist control. Bounce Back consisted of ten group sessions teaching cognitive-behavioral skills along with parent education and individual trauma narrative sessions. A repeated measures analysis of variance was conducted to compare immediate treatment and waitlist groups on PTSD symptoms. The time X group interaction was significant, F(1, 41) = 5.46, p = .02, indicating significant symptom reduction for the immediate treatment group compared to waitlist. Additional analyses will examine the impact of Bounce Back on anxiety and depression symptoms.

Parent Involvement in a School-Based PTSD Treatment Group
(Clin Res, Chronic-Cog/Int Div Fam/Int, Child/Adol, M, Industrialized)

Brewer, Stephanie, MA, PhD Student1; Torres, Stephanie, BA1; Coyne, Claire, PhD2; Santiago, Catherine, PhD1
1Loyola University Chicago, Chicago, Illinois, USA
2Lurie Children’s Hospital of Chicago, Chicago, Illinois, USA

Engaging parents in school-based treatments for trauma is challenging (Kataoka et al., 2003). However, parent involvement in treatment is a key component of evidence-based care (Cohen et al., 2010), and it has been found to improve child outcomes (Corcoran & Pillai, 2008). This study examined parent involvement in a school-based PTSD treatment for 1st-4th graders and its impact on child outcomes. Students were screened by school social workers, and those who reported trauma exposure and elevated PTSD symptoms were randomly assigned to immediate treatment or waitlist control. Preliminary analyses focused on children who received treatment immediately (n = 20). Treatment included 10 small-group cognitive-behavioral sessions for children, parent psychoeducation sessions, and opportunities for joint sessions focused on the child’s trauma narrative. Parents attended between 0 and 4 psychoeducation and treatment sessions with the therapists (M = 2.00, SD = 1.12). A significant positive correlation between the number of sessions parents attended and decreases in child PTSD symptoms over treatment was found, r(18) = .56, p = .01. However, no association was detected for changes in depression, r(18) = .04, p = .87, or anxiety, r(18) = .04, p = .88. Further analyses will explore parent engagement and attendance as possible moderators of treatment outcomes.
Workshop Presentation
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Galerie 4 – Public Health Track

Philadelphia Trauma Initiative: Disseminating Prolonged Exposure into Community Behavioral Health Clinics
(Train/Ed/Dis, Clinical Practice-Commun-Sub/Abuse, Adult, M, Industrialized)

Yusko, David, PsyD1; Ashley, Ava, JD2; Brumfield, Roslyn, MCAT2; Yeh, Rebecca, BS3; Stout, Andrea, MEd, LPC, NCC2; Foa, Edna, PhD3
1University of Pennsylvania, Philadelphia, Pennsylvania, USA
2Department of Behavioral Health and Intellectual disAbility Services, Philadelphia, Pennsylvania, USA
3University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
4University of Pittsburgh School of Medicine, Philadelphia, Pennsylvania, USA

The Center for the Treatment and Study of Anxiety (CTSA) has collaborated with Philadelphia’s Department of Behavioral Health and Intellectual disAbility Services (DBH) on a project to bring evidenced based practices for PTSD to community mental health agencies in the city. CTSA and DBH have worked with 10 community mental health and substance abuse treatment agencies across Philadelphia. In 2014, over 3000 patients were screened for PTSD. We will present the screening data for these 3000 participants, demonstrating the high levels of PTSD experienced by patients in community mental health clinics when compared to national prevalence rate statistics. We will then present the training model designed to implement and sustain an evidenced based practice for PTSD in these 10 agencies. Finally, we will present treatment outcome data for 2014 across the 10 agencies, demonstrating the ability of community therapists to successfully learn and deliver PE in a short period of time. We have found a tremendous need for trauma related services in Philadelphia, and found a significant deficit in the availability of treatment services that are known to be effective for PTSD symptoms. We will also discuss the strategies of dissemination that have been most effective and the challenges we continue to face as the project enters year five.

Workshop Presentation
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Galerie 5 – Other Interventions Track

The Implementation of Trauma-Informed Practice across Child-Serving Systems: Strategies for Building Trauma-Informed Systems, Using Evidence-Based Screening Measures, and Providing Training for Staff
(Train/Ed/Dis, Comm/Int-Prevent-Self-Care, Prof, M, Industrialized)

Donisch, Katelyn, MPH1; Lang, Jason, PhD2; Bray, Chris, PhD2; Ake III, George, PhD4
1Ambil Network, University of Minnesota, Minneapolis, Minnesota, USA
2Child Health and Development Institute, Farmington, Connecticut, USA
3University of Minnesota, Minneapolis, Minnesota, USA
4Duke University Medical Center, Durham, North Carolina, USA

A substantial number of U.S. youth are exposed to traumatic events during the course of childhood and adolescence (Costello et al., 2002). Youth who are exposed to traumatic events may receive support and treatment through a variety of child-service systems, including the mental health, child welfare, education, and juvenile justice systems (Ko et al., 2008). Unfortunately, each child-serving system varies in its level of trauma awareness, differentially defines trauma and its consequences, and differs in the perceived utility of trauma-informed screening and assessment tools (Ko et al., 2008). Among its many functions, the National Child Traumatic Stress Network (NCTSN) creates and sustains trauma-informed child serving systems across the U.S. The overarching goal of this workshop is to provide real-world examples of, and effective NCTSN strategies for, the development of trauma-informed organizations across child-service systems. The specific goals of this workshop are to (1) identify the components of trauma-informed child-serving systems, strategies for becoming trauma-informed, and approaches for measuring these efforts; (2) train attendees in the implementation of trauma-informed screening for youth exposed to traumatic events; and (3) present strategies in the provision of trauma-focused education and skill building for front-line staff, clinicians, and administrators.
Workshop Presentation
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Galerie 6 – Child Trauma Track

Working Collaboratively to Help Unaccompanied Undocumented Children: Terra Firma Immigrant Youth Clinic
(Commun, CPA-Clinical Practice-Complex-Death, Child/Adol, M, Industrialized)

Muniz de la Pena, Cristina, PhD1; Shapiro, Alan, MD, FAAP2; Stark, Brett, JD3
1The Center for Child Health and Resiliency, Montefiore Medical Center, Bronx, New York, USA
2Montefiore Medical Center, Bronx, New York, USA
3Catholic Charities of the Archdiocese of NY, New York, New York, USA

Unaccompanied undocumented children arrive from Central America to US land in increasing numbers escaping from appalling experiences of trauma, gang violence, extreme poverty, and abuse. Because of their increased exposure and vulnerability to psychological and physical trauma, and the intricate interplay with their immigration process, it is critical to tailor psychological services collaboratively with legal and medical providers. A trio of presenters (an immigration attorney, a pediatrician, and a trauma therapist) describe a program developed to integrate legal, medical, and mental health interventions specific for unaccompanied undocumented children: Terra Firma Immigrant Youth Clinic. A system for collocated, collaborative, mental health, medical, and legal services is presented with sample handouts, highlighting the contributions that mental health professionals can make to facilitate adjustment and emotional healing, to prevent re-traumatization, and to promote advocacy for unaccompanied undocumented children in immigration court. Specific empirically supported trauma-focused interventions adopted in this model will be discussed as well as effective assessment procedures and psychological documentation to support asylum applications. Suggestions for adaptations of the program to diverse settings and populations will be discussed based on audience interaction.

Symposium
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Acadia – Other Interventions Track

New Developments in the Treatment of Comorbid PTSD and Substance Use Disorders
(Clin Res, Clin Res-Sub/Abuse, Adult, M, Global)

Ehring, Thomas, PhD
Ludwig-Maximilians-University, Munich, Bavaria, Germany

A number of interventions have been developed for patients suffering from comorbid PTSD and substance use disorder (SUD). Although these interventions have been shown to be highly acceptable and lead to significant decreases in PTSD and substance use, some challenges remain. First, treatment motivation is often low. In addition, combined treatments have not consistently been found to be superior to TAU comprising interventions for SUD only. It therefore appears important to further improve the clinical management of the PTSD/SUD comorbidity. The current symposium comprises four presentations on recent RCTs evaluating innovative treatment approaches that aim at addressing one or both of these challenges. First, Walker and colleagues present data on a brief motivational enhancement intervention for active duty personnel suffering from PTSD and SUD. In the second presentation, Hien and Ruglass focus on an RCT investigating whether the effects of Seeking Safety, an established present-focused treatment for PTSD and SUD, can be enhanced by combining it with SSRI medication (Sertraline). The last two presentations by Mills et al. and Ehring et al. cover evidence on two different combined treatments with a strong focus on trauma-focused interventions. As a whole, results from all contributions to this symposium suggest promising avenues to improve treatment of comorbid PTSD and SUD.

Impact of a Motivational Enhancement Therapy (MET) Intervention for Active Duty Army Personnel with Co-Morbid Substance Abuse Disorder and Post Traumatic Stress Disorder
(Clin Res, Prevent-Sub/Abuse-Mil/Vets, Adult, M, Industrialized)

Walker, Denise, PhD1; Walton, Thomas, MSW1; Kaysen, Debra, PhD1; Neighbors, Clayton, PhD2; Mbilinyi, Lyungai, PhD, MSW1; Roffman, Roger, DSW1
1University of Washington, Seattle, Washington, USA
2University of Houston, Houston, Texas, USA

Individuals with PTSD and substance use disorder (SUD) are less likely to present and more likely to drop-out of treatment. The Warrior Check-Up is a randomized clinical trial evaluating a Motivational Enhancement Therapy (MET) intervention for active-duty soldiers with untreated PTSD and SUD.
Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure (COPE)

(Clin Res, Clin Res-Sub/Abuse, Adult, M, Industrialized)

Mills, Katherine, PhD1: Back, Sudie, PhD2; Brady, Kathleen, MD, PhD3; Baker, Amanda, PhD4; Sannibale, Claudia, PhD1; Teesson, Maree, PhD1
1University of New South Wales, Sidney, New South Wales, Australia
2Medical University of South Carolina, Charleston, South Carolina, USA
3Medical University of South Carolina and the Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA
4University of Newcastle, Callaghan, New South Wales, Australia

Introduction: The present study examines factors associated with clinically significant change in PTSD symptoms among patients with co-occurring substance dependence (SD) who took part in a randomized controlled trial examining the efficacy of COPE: an integrated exposure-based therapy for PTSD and SD. Method: 103 participants were recruited from substance use treatment services and community referrals in Sydney, Australia, 55 of whom were randomized to receive COPE plus usual treatment. Change in Clinician Administered PTSD Scale (CAPS) scores was categorized as: improved (reduced by ≥ 15 points), worsened (increased by ≥15 points), and no change (scores remained within ±15 points of baseline score). Results: 72% of those randomized to receive COPE demonstrated clinically significant improvement in their PTSD symptoms, 26% demonstrated no change, and 2% worsened. 46% no longer met DSM-IV diagnostic criteria for PTSD. Improved outcome was positively associated with attendance, a higher level of educational attainment, and nominating alcohol, cannabis or benzodiazepines as the main drug of concern (as opposed to opiates or psychostimulants). Conclusions: The high proportion of participants demonstrating clinically significant improvement in PTSD symptomology is encouraging. The findings highlight the importance of treatment retention in obtaining positive outcomes.

Integrated Trauma-Focused Treatment for Concurrent Posttraumatic Stress Disorder and Substance Use Disorder: A Randomized Controlled Trial

(Clin Res, CPA-CSA-Clin Res-Sub/Abuse, Adult, M, Industrialized)

Ehring, Thomas, PhD1; van Dam, Debora, PhD2; Vedel, Ellen, PhD3; Emmelkamp, Paul, PhD4
1Ludwig-Maximilians-University, Munich, Bavaria, Germany
2VU University Medical Center, Amsterdam, Noord Holland, Netherlands
3Arkin, Amsterdam, Noord Holland, Netherlands
4University of Amsterdam, Amsterdam, Noord Holland, Netherlands

The aim of this study was to investigate the effectiveness of an integrated treatment for concurrent PTSD and Substance Use Disorder (SUD) that is based on Structured Writing...
Therapy for PTSD (SWT) and CBT for SUD (CBT/SUD). A randomized controlled trial was performed within a substance use treatment center, comparing CBT/SUD + SWT with CBT for SUD treatment alone (Total N= 96). Outcome measures included the Posttraumatic Diagnostic Scale (PDS), the Timeline Follow Back for alcohol and drugs (TLFB), and the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I). Treatment effectiveness was investigated using Linear Mixed Modeling (LMM). Both treatments led to a significant reduction of PTSD and SUD symptoms from pre- to post-treatment for ITT as well as completer analyses, and effects were maintained at follow-up. In addition, completer analyses favored CBT/SUD + SWT above CBT/SUD in reducing PTSD symptoms. The findings show that CBT for SUD alone already leads to a considerable reduction in PTSD symptoms. However, the study also presents preliminary evidence that adding SWT to CBT for SUD can further increase the effect on PTSD symptoms, under the condition that the received treatment dosage is sufficient. Implications for future research will be discussed.

Symposium
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Salon A-C – Bio-Med/ Genetics Track

Maternal Trauma and Depression and the Infant’s Mental Health: From Animal Models to Clinical Studies
(Bio Med, Dev/Bio/Int-Genetic-Intergen, Child/Adol, A, N/A)

Muzik, Maria, MD; Debiec, Jacek, MD; Sullivan, Regina, PhD
1University of Michigan, Dept of Psychiatry, Ann Arbor, Michigan, USA
2University of Michigan, Ann Arbor, Michigan, USA
3Nathan Kline Institute, NYU School of Medicine, New York, New York, USA

This symposium proposes an overview of the most recent animal and clinical studies investigating effects of maternal trauma and depression on the infant's development and mental health. Understanding of these mechanisms mediating effects of maternal trauma and dysregulated mood on the infant are critical for developing early preventive and therapeutic interventions. Dr. Roth will discuss recent animal data demonstrating epigenetic alterations and telomere CNS alterations as biological consequences of exposure to caregiver maltreatment. Dr. Debiec will discuss recent animal data demonstrating behavioral, neural and molecular correlates of the intergenerational transmission of emotional trauma mediated by emotional communication and associative learning mechanisms. Dr. Burtchen will discuss recent clinical data demonstrating the association between maternal history of PTSD and depression and infant psychobiological dysregulation at 6 month. Dr. King will discuss recent clinical data demonstrating association between quality of maternal caregiving, dopamine D4 receptor gene variant (the “low efficiency” DRD4 VNTR 7-repeat allele) and infant's affect. Finally, Dr. Sullivan as discussant will integrate across the basic science and provide a translational perspective.

Mother-to-Infant Transmission of Trauma through Social Fear Learning
(Bio Med, Anx-Dev/Int-Surv/Hist-Intergen, N/A, A, Industrialized)

Debiec, Jacek, MD
University of Michigan, Ann Arbor, Michigan, USA

Emotional trauma and fear may be transmitted across generations. We recently demonstrated in a rodent model that maternal defense responses may be transferred to her infants through maternal fear expression and infant associative learning mechanisms (Debiec and Sullivan, 2014). We showed in our model the role of the olfactory modality in this transmission. Since the role of chemosignaling in communicating fear in humans is yet to
be determined, here we asked whether maternal stress vocalizations play a role in the mother-to-infant transmission of fear. Rat pups were exposed to the previously recorded and played back maternal stress (22 kHz) vocalizations paired with a neutral odor. Control group included pups exposed to the same odor alone. Subsequently, pups’ behavioral responses upon re-exposure to this odor were tested. Statistical analysis revealed that pups that had received pairing of distress vocalizations with the neutral odor as compared to controls displayed fear (p<0.02) and avoidance (p<0.05) upon subsequent re-exposure to this odor. In a series of other experiments we characterized the neural and endocrine mechanisms of this fear transmission through maternal stress vocalizations. Our model demonstrates that maternal fear responses may be transmitted to pups through maternal stress vocalizations and infant associative learning.

Brain Epigenetic and Telomere Alterations in a Rodent Model of Caregiver Maltreatment
(Bio Med, Bio Med-CPA-Gen/Int-Bio/Int, N/A, A, N/A)

Roth, Tania, PhD
University of Delaware, Newark, Delaware, USA

Objectives: Epigenetic alterations and telomere shortening have emerged as biomarkers of the impact of early-life adversity and as mechanisms by which maltreatment could affect brain development and behavioral outcomes. Research with animal models is invaluable for understanding how the timing and duration of stress can interact to produce these changes in the brain and consequently their relevance to behavior. Methods: Here we use a within-litter design to explore the ability of caregiver maltreatment to produce DNA methylation, histone, and telomere alterations in the CNS. Results: Maltreated-infants experienced a greater proportion of aversive caregiving behaviors and emitted significant audible and ultrasonic vocalizations. As adults, maltreated-animals exhibited significant DNA methylation alterations within the medial prefrontal cortex (mPFC), amygdala, and hippocampus, with sexually dimorphic epigenetic alterations observed. In addition, maltreated-females exhibited marked changes in acetylation of histone 3 lysine 9/14 (active chromatin marker) associated with the Bdnf DNA within the mPFC as well as telomere length within the amygdala. Conclusions: Together, these data provide empirical support of epigenetic and telomere alterations as biological consequences of exposure to maltreatment.

Effects of Maternal Posttraumatic Stress Disorder on Infant Psychobiological Dysregulation Six Months Postpartum
(Clin Res, Bio/Int, Lifespan, A, N/A)

Burtchen, Nina, MD
Private Practice, Bronx, New York, USA

Maternal trauma increases the risk for adverse developmental and medical outcomes in the child. Early infancy is a particularly vulnerable yet understudied period (Garner, 2011). Maternal trauma and major depressive disorder (MDD) are often co-morbid; and infants of depressed mothers frequently show signs of psychobiological dysregulation (Burtchen, 2013). This study tests if and how maternal PTSD (with or without co-morbid MDD) affects infant regulatory capacities. Methods: 198 six-month old infants and their mothers at an urban public hospital clinic. Inclusion: Full-term, no birth/medical complications. Clinician Administered PTSD Scale; Structured Clinical Interview for DSM-IV. Coding of videotaped mother-infant interactions with the Coding Interactive Behavior Scale (Feldman, 1998). Infant/Toddler Symptom Checklist (ITSC; DeGangi, 1995). Structural Equation Modeling. Results: 56% mothers with a trauma history; 23% MDD, 17% PTSD (including 8% co-morbid MDD/PTSD). 33% infants scored above the clinical ITSC cutoff for regulation disorder. There was significant interaction between maternal PTSD and MDD and infant outcome. Maternal PTSD had both direct and mediated effects. Effects on infant social engagement were mediated by sensitive parenting. Conclusions: Maternal co-morbidity significantly increases the risk for infant dysregulation six months postpartum.

DRD4 x Quality of Maternal Caregiving Interaction is Associated with Infant Negative Temperament at 7 Month and Behavior Problems at 18 Month
(Bio Med, Depr-Div/Int-Biogenetic-Care, Lifespan, A, Industrialized)

King, Anthony, PhD1; Rosenblum, Katherine, PhD2; Bocknek, Erika, PhD3; Muzik, Maria, MD4
1VA Ann Arbor Healthcare System/University of Michigan, Ann Arbor, Michigan, USA
2University of Michigan, Dept of Psychiatry, Ann Arbor, Michigan, USA
3Wayne State University, Detroit, Michigan, USA

A dopamine D4 receptor gene variant (DRD4 VNTR 7-repeat allele) has been associated with greater child behavior problems in interaction with maternal insensitivity in toddlers. The evolutionarily-related DRD4 2-repeat allele is functionally similar to the 7-repeat allele. Here we examine DRD4 effects on 18 mo child behavior problems, and trajectories from early (7 mo) infant temperament. We have a longitudinal cohort of mother-infant dyads (268 families) with behavioral assessments at 4, 7, 12, 15, 18, and 36 mo, N=65 with complete data used in this analysis. A latent variable ‘Negative Infant Temperament’ was constructed from maternal report (IBQ) and behavioral coding of mother-infant dyadic interactions. Infants carrying DRD4 7-repeat or 2-repeat alleles with mothers with postpartum depression had greater behavior problems (CBCL) at 18 mo than non-carriers with depressed mothers (interaction F=4.4, p<.05; controlling for maternal age, child ancestry, and DRD4 genotype DRD4 x maternal MDD regression beta=.463, p=.019. DRD4 x maternal depression interaction was also seen with Infant Negative Temperament at 7 months (beta=.365, p=.005), which mediated the DRD4 effects on 18 mo CBCL (Sobel=.31, p=.001). These pilot analyses independently replicate DRD4 x maternal caregiving interaction, providing further evidence of genetic effects on infant sensitivity to caregiving.
Can a Natural Disaster Lead to Suicide Attempts and Psychiatric Disorders? A 5-Year Matched Cohort Study

Arnberg, Filip, PhD¹; Fang, Fang, PhD, MD²; Hultman, Christina, PhD³; Valdimarsdottir, Unnur, PhD⁴
¹Uppsala University, Uppsala, Sweden
²Karolinska Institutet, Stockholm, Sweden
³University of Iceland, Reykjavik, Iceland

We report on a large matched cohort study conducted to determine whether a Swedish tourist population repatriated from the 2004 Southeast Asian tsunami were at increased risk of suicide attempts and psychiatric disorders. Through population registers, 8762 repatriated adults were matched with 864,088 unexposed adults on sex, age, cohabitation, income, and employment, and we retrieved pre- and post-disaster diagnoses of psychiatric disorders made in psychiatric in-/outpatient care and suicide attempts up to 5 years post-disaster. Conditional Cox regression models were used to assess elevated risks of severe psychopathology adjusted for pre-tsunami psychiatric diagnoses. A subsample of 3534 survey respondents was used in analyses stratified on exposure severity and bereavement. During this presentation, the elevated risks will be described regarding suicide attempts and psychiatric diagnoses, particularly stress-related disorders. Differences related to gender, exposure severity, and bereavement will be noted. The longevity of the elevated risks among adults will be contrasted to those among children. The findings will be discussed as related to the long-term effects of a disaster on psychiatric services and individual needs in a post-disaster context with few secondary stressors.

Predicting Posttraumatic Stress Disorder in Single-incident Trauma Survivors with an Acute Injury: Preliminary Findings
(Assess Dx, Acc/Inj-Acute-Assess Dx-Pub Health, Adult, A, Industrialized)

Hunt, Josh, MA, PhD Student¹; Simiola, Vanessa, MA²; deRoon-Cassini, Terri, PhD³
¹University of Wisconsin - Milwaukee, Milwaukee, Wisconsin, USA
²Medical College of Wisconsin, Milwaukee, Wisconsin, USA

The American College of Surgeons has begun recommending evaluation for PTSD in all trauma centers; however, the vast majority of trauma centers in the U.S. are not doing so. The objective of this study was to create a brief screen that can be utilized by hospital staff to identify adults at risk for PTSD. A review of pretrauma, peri-trauma, and posttrauma risk factors for PTSD development in this population was utilized to create an item pool that was then reviewed by experts in the field. This item pool along with a previously created screen were given to patients (n = 103) admitted to two level 1 trauma centers in the U.S. A follow-up was conducted at one month in which participants were administered the Clinician Administered PTSD Scale (CAPS5). Bivariate logistic regression was used to determine the items from the item pool that were most strongly associated with meeting the criteria for a PTSD diagnosis at approximately one month post injury. The logistic regression yielded a five item model (R² = 62.63) which outperformed a previously created screen normed on an emergency room sample. ROC curve analysis was used yielding a cutoff score of 1, sensitivity of 81.33%, negative predictive value of 100%, and positive predictive value of 66.7%. The clinical implications of this tool along with a rationale for item retention will be discussed.

A Prospective Study of Patterns and Predictors of Health Care Utilization among Survivors of the Utøya Shooting in Norway, 2011
(Practice, Health-Pub Health-Terror, Lifespan, M, Industrialized)

Stene, Lise, MD, PhD; Dyb, Grete, MD, PhD
Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Norway

Reliable estimates of health service utilization following terrorism are essential to develop an effective public health response, yet prospective studies of health care utilization among survivors are scarce. A baseline assessment must be established to predict the true impact of terrorism on health services needs and utilization; still pre-disaster data have rarely been available. This presentation provides prospective data on the health care delivery to 260 of 490 (53%) survivors of the Utøya massacre. Three waves of face-to-face interviews performed 4-5, 14-15 and 32-33 months after the attack are linked with register-based data on the survivors’ utilization of primary and specialized health services from 3.5 years before until 3.5 years after the attack. The study can inform us whether mental health services were provided to survivors with high levels of posttraumatic distress, and identify predictors of utilization of different types of health services. Furthermore, the terror-related need for municipal and specialized health services will be assessed through comparisons between survivors and a control group consisting of 5 controls per survivor randomly selected from the general population and matched on age and gender. Accordingly, the findings may increase our understanding of health care needs after terror and advance future treatment policies.
An Empirically-Grounded Framework for Traumatic Stress Policy Dissemination Research
(Social, Pub Health-Res Meth, N/A, M, N/A)

Purtle, Jonathan, DrPH
Drexel University, Philadelphia, Pennsylvania, USA

The ISTSS Strategic Plan emphasizes the importance of ensuring that knowledge about traumatic stress informs public policy. A robust body of research, however, suggests that sociopolitical forces typically have much greater influence on policymaking processes than scientific evidence. Policy dissemination research has emerged as a field to address this challenge by producing understandings of the dynamics of policymaking processes and generating knowledge to aid the translation of research into policy. I reviewed articles indexed as “Government Policy Making” in the Published International Literature on Traumatic Stress (PILOTS) database to assess the current state of trauma policy research. I found that much has been written about the importance policy to traumatic stress studies, but that very little empirical traumatic stress policy research has been conducted. This presentation will synthesize scholarship about trauma policy and provide a framework to stimulate trauma policy dissemination research. Drawing from multiple disciplines (e.g., political science, public health, sociology), the presentation will provide an overview of research designs and methodologies, data sources, and theories to guide trauma policy dissemination research. A typology of trauma-related, trauma-informed, and trauma-specific policy research questions will be presented to structure inquiries.

Military Track Paper Session
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Salon E – Military Track

Risk Factors for Self-Directed Violence in US Soldiers: A Case-Control Study
(Prevent, Anx-Chronic-Depr-Mil/Vets, Adult, M, N/A)

Skopp, Nancy, PhD1; Smolenski, Derek, PhD, MPH2; Zhang, Ying, BS, MS3
1US Army, Madigan Health Systems, Tacoma, Washington, USA
2National Center for Telehealth & Technology, Tacoma, Washington, USA
3Department of Defense, Tacoma, Washington, USA

Few studies exist that compare hypothesized risk factors between Soldiers who have attempted or completed suicide and a group of Soldiers from the same population not considered at risk for suicidal behavior. We conducted a prospective case-control study to compare suicide risk factors. Controls were 250 Soldiers, and cases were 100 suicides and 313 attempts that were drawn from the Department of Defense Suicide Event Report (DoDSER) and matched to controls. Suicide decedents and attempters were more likely than controls to have had a recent failed intimate relationship, legal problems, history of self-harm, separation proceedings, and/or history of substance abuse. Suicide cases were less likely than controls to have received a psychiatric diagnosis, when including posttraumatic stress disorder (PTSD) but more likely than controls to have been diagnosed with a psychiatric diagnosis, when excluding PTSD. Compared suicide cases, suicide attempt cases were more likely to have received a psychiatric diagnosis, including PTSD. Recently failed intimate relationships, legal problems, prior self-harm, separation proceedings, and substance abuse history were found to be risk factors for suicide and suicide attempts among Soldiers. PTSD was found to be a risk factor for suicide attempts but not completions.

Is Virtual Reality Necessary? Outcomes from a RCT Comparing Virtual Reality Exposure Therapy to Control Exposure Therapy for Active Duty Service Members with Combat Related PTSD
(Clin Res, Clinical Practice-Tech-Mil/Vets, Adult, , N/A)

Webb-Murphy, Jennifer, PhD1; McLay, Robert, MD, PhD1; Baird, Alicia, PhD2; Nebeker, Bonnie, AS1; Ram, Vasudha, MPH1; Gerard, Steven, BA1; Bhakta, Jagruti, PhD2; Deal, William, PhD3; Tran, Lily, PhD3; Anson, Heather, PhD3; Klam, Warren, MD2; Delaney, Eileen, PhD3; Johnston, CAPT Scott, PhD, ABPP1
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Virtual Reality Exposure Therapy (VRET) has been shown to be one of the most effective treatments for Posttraumatic
Outside the Box – Treating Complex Trauma in a VA Outpatient Setting
(Practice, Chronic-Complex-Mili/Vets, Adult, M, N/A)

Alexander, Patricia, PhD, ABPP; Laird, Christina, PhD, LCSW
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The majority of treatment offerings within VA assume patients have sufficient internal resources to quickly begin trauma work and utilize primarily cognitive strategies. Preliminary findings from ACE scores at our clinic suggest a high prevalence of complex trauma, which may complicate the development of self-regulation skills prior to beginning memory work (Cloitre et al., 2011). This presentation describes the development and implementation of an outpatient treatment program that more accurately reflects our population’s developmental history, tailoring treatment to the uniqueness of childhood, combat, and sexual trauma. The program offers a phase-based series of courses on the neurobiological effects of trauma on the brain and body; cognitive, emotional, and somatic self-regulation skills; and evidence-based treatments. Phase I classes are designed to empower patients to choose what type of treatments to pursue, based on a new understanding of their problems, and increased hope. Our implementation process, outlines of program content, and preliminary qualitative patient feedback will be described using the framework of trauma-informed care.
During a fear acquisition phase, one bell was paired with a loud alarm noise (CS+) and one was not (CS-). Next, both bells were presented without the alarm noise in an extinction learning phase. Skin conductance response (SCR) and self-reported fear to CS+ and CS- were collected. Children with no trauma history exhibited good discriminant conditioning, with greater SCR and fear to the CS+ relative to CS- during learning. Children with exposure to trauma exhibited poor discriminant conditioning, exhibiting elevated SCR to both CS+ and CS- during learning. Poor discrimination of threat and safety cues following trauma may be involved in elevated fear responding and a risk factor for PTSD in children.

**Fear Conditioned Responses and PTSD Symptoms in Children with Trauma Exposure**

(Bio Med, Bio Med-Chronic-Dev/Int, Child/Adol, M, Industrialized)

Jovanovic, Tanja, PhD1; Cross, Dorthie, PhD1; Roffman, Rebecca, MA1; Kim, Ye Ji, BA1; Vance, Alexander, BA1; Reddy, Renuka, BS1; Norrholm, Seth, PhD1; Ressler, Kerry, MD, PhD1; Bradley, Bekh, PhD1

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Posttraumatic stress disorder (PTSD) in adults is associated with dysregulated fear responses; therefore, fear conditioning paradigms administered during child development can offer insight into neurobiological ontogeny of PTSD. The objective of this study was to investigate fear conditioned responses in school-age children at risk for PTSD. We assessed fear-potentiated startle (FPS) and skin conductance responses (SCR) using a differential fear conditioning paradigm in 8-13 year old children (n=86) recruited from a highly traumatized urban population. The paradigm included a stimulus paired with an aversive airburst (danger signal) and a non-reinforced stimulus (safety signal). The children and their parents were interviewed to assess trauma exposure and PTSD symptoms. Results showed that the children experienced a wide range of trauma exposure that was highly correlated with PTSD symptoms, r=0.001. Children showed increased SCR and FPS to the danger signal (p’s<0.01), and significant discrimination between danger and safety (p’s<0.01). PTSD symptom severity was positively correlated with SCR to the danger signal, r=0.24, p<0.05, but not to FPS. The results suggest that fear conditioned responses are associated with PTSD symptoms in trauma exposed children. Physiological responses to danger signals may serve as early biomarkers of PTSD risk in children.

**Developmental Influences on Neural Responses to Learned Threat in Health and Anxiety Disorders**

(Bio Med, Anx-Neuro, Lifespan, M, Industrialized)

Gold, Andrea, PhD1; Britton, Jennifer, PhD2; Ronkin, Emily, BA1; Farber, Madeline, BA1; Leibenluft, Ellen, MD1; Pine, Daniel, MD1

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Neural responses to learned threat are influenced by development and anxiety. Perturbed threat-safety discrimination is linked to anxiety in adults, although there are few pediatric studies. Threat learning research in pediatric anxiety provides a framework to inform similar studies in trauma-exposed youths. The present study examines threat-safety discrimination in anxious and healthy youths and adults (N=115). In the clinic, subjects completed discriminative fear conditioning and extinction. During fMRI scanning three weeks later, subjects viewed the conditioned stimuli and morphed images under threat appraisal and explicit memory conditions. The diagnosis-by-age-by-condition interaction revealed activation in medial prefrontal cortex (mPFC), hippocampus, and ventrolateral PFC (vPFC). Specifically during threat appraisal, anxious vs. HV youths showed greater mPFC and hippocampus activation, but adults showed the opposite pattern. Anxious vs. HV youths showed greater vPFC activation specifically during threat appraisal, but adults did not differ. Associations with stressful life events and brain morphometry will also be tested. Age-specific PFC and hippocampal dysfunction during threat appraisal suggests different mechanisms in pediatric vs. adult anxiety. These findings underscore the need for developmental studies of fear learning and threat processing in trauma research.

**Paradoxical Recruitment of Threat Circuitry in Pediatric Post-traumatic Stress Disorder**


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Objective: To examine threat circuit function in pediatric PTSD, including network-level and cross-sectional age effects. Methods: 25 youth with PTSD and 28 healthy youth underwent implicit emotion processing during fMRI, viewing faces changing from neutral to angry or happy, or changing shape. Functional activation/connectivity were examined in a priori regions (amygdala/hippocampus, medial prefrontal cortex [mPFC]) with multiple comparison correction. Results: PTSD youth showed dorsolateral (dm)PFC hyperactivation, and age-related increase in amygdala activation across emotions vs. healthy youth. Surprisingly, a group by condition interaction in the dorsal anterior cingulate cortex (dACC) showed hyperactivation to happy faces in PTSD youth, but no differences to angry faces. Connectivity analyses revealed group by condition interactions in threat circuitry including dACC-insula, dACC-dmPFC, and dmPFC-amygdala. In each case, PTSD youth had reduced connectivity to angry, but increased connectivity to happy faces, a pattern opposite of healthy youth. Paradoxical recruitment was further associated with PTSD measures. Conclusions: Pediatric PTSD is characterized by age-related and emotion-specific abnormalities in threat circuitry. Paradoxical recruitment of this circuitry to angry and happy faces may indicate abnormalities in threat-safety discrimination in youth with PTSD.
Symposium
Saturday, November 7
2:45 p.m. to 4:00 p.m.
Balcony L-M – Other Interventions Track

Relational Aspects of Grief and Mourning: Clinical Implications for Bereaved Children, Adolescents, and Adults
(Prevent, Clin Res-Death-Fam/Int-Grief, Lifespan, M, Industrialized)

Kaplow, Julie, PhD, ABPP; University of Texas Health Science Center, Houston, Texas, USA

Following the death of a loved one, social relationships play an instrumental role in psychological and behavioral functioning. However, the field of bereavement is in need of studies that help to "unpack" the mechanisms inherent in social relationships that may serve to facilitate or hinder post-death adjustment. In this symposium, we describe findings from three unique studies of bereaved individuals, including children and adolescents exposed to the death of a parent, young adults exposed to the Virginia Tech Mass Shootings, and older adults exposed to suicide deaths. Each study explores the various roles that specific attributes of social relationships (relationship quality, communication, co-facilitation of grief, social proximity) may play as candidate moderators, mediators, or markers of risk/protection in bereaved individuals. We also describe ways in which social/contextual variables can shed much-needed light on grief as a psychosocial construct, especially regarding its dimensionality, manifestations, and clinical course across development. We conclude by explaining how our theory-building work and empirical findings can inform prevention and early intervention efforts with bereaved children and adults who may be at greatest risk following the loss of a loved one.

Relationship Dynamics and Grief following Mass-Violence: Uncovering the Roles of Closeness to the Deceased, Peri-Traumatic Threats, and Social Support
(Prev, Comm/Int-Comm/Vio-Death-Grief, Adult, M, Industrialized)

Smith, Andrew, PhD Candidate¹; Layne, Christopher, PhD²; Kaplow, Julie, PhD, ABPP³; Brymer, Melissa, PhD, PsyD⁴; Hughes, Michael, PhD⁵; Pynoo, Robert, MD, MPH⁶; Jones, Russell, PhD⁷
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Guidance for clinicians treating the traumatically bereaved is limited by a lack of basic science evidence for longitudinal grief persistence. This study focused on predicting grief persistence following a mass-casualty school shooting by testing dynamic models involving candidate pre, peri, and post-trauma predictors of longitudinal grief reactions. We hypothesized that pre-trauma factors (social closeness to the deceased and trauma history) would predict longitudinal grief directly and indirectly (via peri-traumatic threats to others' safety), and that post-trauma contextual factors (social support availability in a time of need) would attenuate this effect. Student survivors (N = 1191) of the Virginia Tech school shootings (most deadly in US history) were assessed 3 months and 1 year post-shootings. Competing path models using Hayes' (2013) methodology tested hypothesized direct, indirect (mediated), and conditional (moderated-mediation) effects. Social closeness predicted longitudinal grief reactions, both directly and indirectly via perceived threat to others' safety. Social support moderated/attenuated the adverse effects of social closeness and perceived threat. The final model accounted for 41% variance in longitudinal grief reactions [F(9, 999)] = 76.18, p < .001). Discussion focuses on grief intervention and methods for screening post-mass-violence grief reactions.

Relational Aspects of Grief and Mourning: Suicide Exposure in Adults
(Clin Res, Death, Adult, M, Industrialized)

Cerel, Julie, PhD
University of Kentucky, Lexington, Kentucky, USA

Most research investigating the effect of suicide has been limited to samples of family with little research on the impact outside immediate family. Adverse outcomes in both kin & non-kin suicide-exposed individuals include PTSD, depression and suicidal behavior. Gaining an understanding of which individuals might be most affected following suicide-exposure has important implications for assessment & early intervention. A random digit-dial survey with 805 non-veterans and 931 veterans in Kentucky (68.9% male, age M=57.8;sd=16.3) was utilized to examine proportion exposed to suicide, relationship to the decedent, and psychiatric outcomes related to relationship variables. 47.2% reported lifetime exposure to suicide. 10.3% were 1st-degree relatives, 23.1% other family & 66.5% non-relatives. Participants’ stated 136 unique relationships to the decedent. Perceived closeness and relationship type were differentially associated with various psychiatric outcomes. For example, perceived closeness was associated with PTSD scores, which were also higher for 1st-degree relatives. In contrast, rates of depression and anxiety did not vary as a function of relationship type but did according to closeness. Clinical implications of the wide-ranging impact of suicide-exposure will be discussed, including how types of relationships, along with perceived closeness, may assist in risk screening.
Unpacking the Social Contexts of Grief and Mourning: Towards a Developmental Lifespan Theory of Bereavement-Related Risk and Resilience

Layne, Christopher, PhD1; Kaplow, Julie, PhD, ABPP2; Pynoos, Robert, MD, MPH1
1UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
2University of Texas Health Science Center, Houston, Texas, USA

We recently proposed the creation of a developmental lifespan theory of bereavement-related risk and resilience that can explain, predict, and address the clinical course of grief across childhood, adolescence, and adulthood (Kaplow & Layne, 2014). A key step in achieving this aim is improving the capacity to differentiate between adaptive vs. maladaptive forms of grieving as manifest in different psychosocial domains and developmental periods. The Differential Validity Matrix is a theory-building and test construction tool that holds promise for mapping the psychosocial contexts encompassing bereavement, grief, and mourning across the lifespan. We present data from a field study of bereaved Detroit youth (N = 300) who completed the Multidimensional Grief Reactions Scale, Strengths and Difficulties Questionnaire, and Bereavement Risk and Resilience Index. We present evidence regarding the multidimensional nature of grief including (1) confirmatory factor analyses of theorized adaptive vs. maladaptive grief dimensions; (2) differential relations between theorized adaptive vs. maladaptive grief dimensions, and positive vs. negative adjustment in various social contexts; and (3) differential relations between different grief domains and theorized etiologic risk factors including specific relationship attributes. We discuss implications for assessment, intervention, and policy.

Parent-Child Relationships as Markers of Risk and Protection in Bereaved Youth: Implications for Addressing Childhood Anticipatory Grief and Post-Loss Adjustment

Kaplow, Julie, PhD, ABPP1; Layne, Christopher, PhD2; Wardecker, Britney, MA, PhD Student3; Goldenthal, Hayley, MA1; Pynoos, Robert, MD, MPH2
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2UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
3University of Michigan, Ann Arbor, Michigan, USA

Parent-child relationships can powerfully influence bereaved children’s adjustment following a death. However, little is known regarding the ways in which specific parental behaviors—including those of terminally ill parents prior to their death—may influence children’s post-loss mental health. This study examined pre- and post-death relationship factors (including parent-child relationship quality and communication patterns) in relation to parentally bereaved children’s psychological functioning (n = 96), mean age = 10.65, range = 6 to 17. We found significant links between children’s perceptions of the importance of their relationship with the decedent (while alive) with higher levels of maladaptive grief. Children who were able to say everything they wanted to say to the terminally ill parent prior to his/her death exhibited higher levels of adaptive grief, particularly with regard to coping with the circumstances of the death. Linguistic coding of interviews between surviving parents and children revealed a significant interaction between parents’ use of “positive emotion words” and time elapsed since the death, in that parents’ positive emotions were associated with higher levels of child anxiety and depression in the immediate aftermath, but with lower levels of distress after more time had passed. Implications for screening and intervention will be discussed.
Closing International Plenary

Invited Panel
Saturday, November 7
4:15 p.m. to 5:30 p.m.
Acadia

The Cultural Diversity of Treating PTSD
(Global, Clinical Practice-Cul Div-Ethnic-Global, Prof, M, Global)

Schnyder, Ulrich, MD; Ehlers, Anke, PhD; Foa, Edna, PhD; Hasan, Aram, MD; Mwiti, Gladys, PhD; Kristensen, Christian, PhD

1Zurich University, Zurich, Switzerland
2Oxford University, Oxford, United Kingdom
3University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
4Centrum 45, Leiden, Netherlands
5Oasis Africa, Nairobi, Kenya
6Pontifical Catholic University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil

While there is some evidence of the PTSD construct’s cross-cultural validity, trauma-related disorders may vary across cultures, and the same may be true for treatments that address such conditions. Culture-sensitive psychotherapy involves trying to understand how culture enhances the meaning of the patient’s life history, the cultural components of a patient’s illness and help-seeking behaviors, as well as the patient’s expectations with regard to treatment. Trauma is a global issue, and our traumatized patients come from all over the world. Thus, being sensitive to cultural issues has become a sine qua non for being a good therapist. In this panel, therapists from various cultural backgrounds (Japan, Kenya, Syria) will present short video clips highlighting one or several treatment elements that are characteristic for their respective culture. Edna Foa (representing evidence-based “exposure work”) and Anke Ehlers (representing evidence-based “cognitive work”) will comment on these presentations. This will be followed by a general conversation, involving the audience, on what we can learn from these cultural elements, how evidence-based treatments need to be adjusted when treating patients from various cultural backgrounds, and possibly also in which way new developments in psychotherapies for PTSD may be informed by these cultural elements.