32nd Annual Meeting

Trauma and Public Health: Innovative Technology and Knowledge Dissemination

November 10 – 12, 2016
Pre-Meeting Institutes, November 9
Sheraton Dallas Hotel
Dallas, Texas USA

Session Abstract Book

Jointly Provided by Boston University School of Medicine and the International Society for Traumatic Stress Studies

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- Biological/Medical (Bio Med)
- Clinical/Intervention Research (Clin Res)
- Clinical Practice (Practice)
- Community-Based Programs (Commun)
- Culture/Diversity (Cul Div)
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- Public Health (Pub Health)
- Research Methodology (Res Meth)
- Social Issues – Public Policy (Social)
- Technology (Tech)
- Training/Education/Dissemination (Train/Ed/Dis)
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- Accident/Injury (Acc/Inj)
- Acute/Single Trauma (Acute)
- Affective Processes/Interventions (Affect/Int)
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- Aging/Lifecourse (Aging)
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- Child Physical Abuse/Maltreatment (CPA)
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- Community-Based Programs (Commun)
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- Community Violence (Comm/Vio)
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- Culture/Diversity (Cul Div)
- Death/Bereavement (Death)
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- Ethics (Ethics)
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- Genetics/Epigenetics (Genetic)
- Global Issues (Global)
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- Prevention/Early Intervention (Prevent)
- Primary Care (Care)
- Psychodynamic Research (Psych)
- Public Health (Pub Health)
- Quality of Life (QoL)
- 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)
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- Terrorism (Terror)
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- Training/Education/Dissemination (Train/Ed/Dis)
- Traumatic Grief (Grief)
- Vicarious Traumatization and Therapist Self-Care (Self-Care)
- War – Civilians in War (Civil/War)
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Guides to Information in Schedule

Regions
- Central and Eastern Europe and the Commonwealth of Independent States (C & E Europe & Indep)
- Eastern and Southern Africa (E & S Africa)
- East Asia and the Pacific (E Asia & Pac)
- Industrialized Countries (Industrialized)
- Latin America and the Caribbean (Latin Amer & Carib)
- Middle East and North Africa (M East & N Africa)
- South Asia (S Asia)
- West and Central Africa (W & C Africa)

Population Types
- Child/Adolescent (Child/Adol)
- Adult (Adult)
- Older People/Aging (Older)
- Both Adult and Child/Adolescent (Lifespan)
- Mental-Health Professionals (Prof)
- Other Professionals (Other)

Presentation Level
All presentations designate the knowledge/skill level required of the participant as either: Introductory (I), Intermediate (M) or 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.

Presentation Type Descriptions*

- Case Study Presentation
  Sessions use material from a single or a set of cases to illustrate clinical, theoretical or policy issues. These sessions may involve the audience in discussion of the case material presented.

- Media Presentation
  Session involving presentation of a segment of film, video, music, drama, literature, artwork or other form of media relevant to traumatic stress, along with discussion.

- Oral Paper Presentation
  Individual presentations of no more than 15 minutes on a topic related to traumatic stress, typically including the presentation of research data.

- Panel Presentation
  Sessions that include three to four participants discussing a common theme, issue or question. Panels may include short statements during which panelists outline diverse or similar approaches to the same question. Panels are typically more interactive than symposia, involving active discussion among the panelists.

- Poster Presentation
  Individual presentation in a poster format on a topic related to traumatic stress, typically including the presentation of research data.

- Pre-Meeting Institute (PMI)
  Institutes are full- or half-day sessions that provide an opportunity for intensive training on topics integral to the conference program, presented by leaders in the field.

- Symposium
  Session that includes a group of three to four sequential presentations, each related to the overall theme of the symposium.

- Workshop Presentation
  Instructional session that helps increase participants’ understanding and skill in a particular area of interest. Such sessions may include active involvement of the audience.

* Presentation types are color-coded throughout the schedule.
Wednesday, November 9

Full Day PMI

Pre-Meeting Institute (PMI)
Full Day PMI
8:30 AM to 5:00 PM
Dallas A1

PMI #1 Behavioral Sleep Medicine Interventions for Trauma-Related Sleep Disturbances: Cognitive Behavioral Therapy for Insomnia and Exposure, Relaxation, and Rescripting Therapy for Chronic Nightmares
(Train/Ed/Dis, Clinical Practice-Sleep-Train/Ed/Dis, Adult, I, Global)

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2The University of Tulsa, Tulsa, Oklahoma, USA
3University of North Texas, Denton, Texas, USA

Nightmares and sleep disturbances are commonly reported following trauma and are considered the hallmark of posttraumatic stress disorder (PTSD). Historically, sleep disturbances have been conceptualized as secondary symptoms that will remit following PTSD treatment. However, coalescing lines of research indicate sleep disturbances are more than just PTSD symptoms, have likely become partially independent, and may be maintaining and exacerbating PTSD. Sleep disturbances may also remain following successful treatment of PTSD and are uniquely related to suicidality, depression, and substance use. There is strong evidence supporting non-medication treatments for insomnia and nightmares, yet many providers have not received adequate training in the implementation of these interventions. Thus the goals of this PMI are to (1) present the evidence base for cognitive behavioral therapy for insomnia (CBT-I) and Exposure, Relaxation, and Rescripting Therapy (ERRT) for nightmares and (2) to provide step-by-step guidance on how to implement these interventions in clinical practice. We will achieve these goals by presenting case examples, providing handouts to be used in clinical practice, video demonstrations as well as audience exercises to further reinforce the utility of these treatments.
Half Day Morning PMI

Pre-Meeting Institute (PMI)
Half Day Morning PMI
8:30 AM to 12:00 PM
Dallas A2

PMI #2 Keeping Traumatic Stress 
Patients' Electronic Data and 
Communication Private and Secure: 
Ethical and Legal Issues, and Applied 
Software Applications
(Tech, Clinical Practice-Ethics, N/A, I, Global)

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

In recent years, mental health professionals have increasingly incorporated information technology into patient care, including use of smartphones, tablets and laptops for electronic communication, psychological assessment, homework assignment completion and record keeping. Yet weaknesses exist in these technologies that can put patient privacy at risk. This issue is especially salient when working with traumatic stress patients, given the sensitive nature of narrative discussion that happens in trauma-focused psychotherapy (e.g., exposure interventions). In this workshop, issues of ethics, privacy and security of such technology will be discussed in regard to the treatment of traumatic stress patients. Common vulnerabilities empirically found with electronic privacy among mental health clinicians will be detailed. HIPAA regulations related to electronic security will be discussed. An introduction to the concept of “encryption” and its application to traumatic stress practice will be emphasized. I will also explain the relevance of social psychological theory on protection motivation to explaining successful adoption of electronic security practices. Discussion and details are offered on free, easy to use software application solutions for securing patient communication and records. Also discussed are such issues as using encrypted wireless networks, secure email, encrypted messaging and videoconferencing, privacy on social networks, and others. For non-technologically savvy users, this discussion will likely be unfamiliar; though the information will be presented in very basic, non-technical terms. Even for advanced, technologically savvy users, a good deal of this information will likely be unfamiliar and of interest.

Pre-Meeting Institute (PMI)
Half Day Morning PMI
8:30 AM to 12:00 PM
Dallas A3

PMI #3 Systematic Delivery of Exposure, 
Cognitive, and Behavioral Treatments for 
PTSD with a 16-Week Manualized Group 
Protocol
(Clin Res, Clinical Practice-Cog/Int-Mil/Vets- 
Gender, Adult, A, Industrialized)

Castillo, Diane, PhD1; C’dé Baca, Janet, PhD2; Chee, Christine, PhD2; La Bash, Heidi, PhD1
1VA VISN 17 Center of Excellence for Research on Returning War Veterans, Waco, Texas, USA
2New Mexico VA Healthcare System, Albuquerque, New Mexico, USA

This is a two-part advanced workshop for clinicians wishing to use a group format to deliver exposure, cognitive, and behavioral treatments for PTSD. The first hour will cover the group literature, challenges to group treatment, and results from a unique 3-member randomized controlled trial with three treatment modules. The manualized 16-week group treatment showed improvement in PTSD (24-point decrease on the CAPS, p<.001, ES=1.72); on functioning (SF-36: Mental: p<.001, ES=1.31; and Physical, p<.001, ES=1.08); and in quality of life (QOLI: p<.001, ES=1.01) in a sample of female OEF/OIF PTSD Veterans. Clinical improvement was comparable to individual PE (Schnurr, et al., 2003), with 77% showing a response to treatment and 52% loss of diagnosis. PCL scores significantly improved for the Exposure (ES=1.42) and Cognitive (ES=0.90) modules, with both superior to the behavioral (Skills) module. The second part of the workshop will be devoted to providing direction on how to conduct the novel 3-member, 3-module (Exposure, Cognitive, Skills) group treatment protocol. Instruction will include a combination of didactics, instructor demonstrations, and role play for attendees. Most unique to the protocol is conducting imaginal
exposure in a 3-member, 90-minute group, with weekly in-session imaginal exposure for each group member. This protocol design addresses the logistic problem of exposure therapy in group. Orientation and Wrap up are conducted in sessions 1 and 16, respectively. Exposure Module (5 sessions). The rationale, identification of safety options, and index trauma are addressed in session 1. Guided imaginal exposure (Keane, et al., 1989; Foa, et al., 2007) is conducted in sessions 2 through 5, with 30 minutes devoted to each member. Cognitive Module (5 sessions). General cognitive restructuring is taught in session 1, with cognitive distortions on 5 themes (safety, trust, power/control, esteem/intimacy) from Cognitive Processing Therapy (Resick & Schnicke, 1993) challenged in sessions 2-5. Skills Module (4 sessions). Behavioral strategies including assertiveness training are implemented in sessions 1 and 2; and videotaped assertiveness roleplay in sessions 3 and 4. Relaxation techniques are reviewed and practiced in the last 30 minutes of each Skills session. Workshop participants will receive a manual describing the group protocol, including handouts for each treatment component. Participants will be encouraged to: actively participate in roleplays as a group facilitator; identify potential issues; and discuss components of successful group treatment. The group protocol is a practical and effective delivery option that systematically includes exposure, cognitive, and behavioral components for PTSD treatment.

Pre-Meeting Institute (PMI)
Half Day Morning PMI
8:30 AM to 12:00 PM
Dallas D1

PMI #4 The Interpersonal Paradox of Trauma: Principles and Practice of Treating Trauma in Couple and Family Systems
(Practice, Fam/Int-Theory, Lifespan, M, Global)
Nelson Goff, Brian, PhD1; Oseland, Lauren, MS, PhD Student1; Schwerdtfeger Gallus, Kami, PhD, LMFT2; Kiser, Laurel, PhD MBA3; Dekel, Rachel, PhD4
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2Oklahoma State University, Stillwater, Oklahoma, USA
3University of Maryland School of Medicine, Baltimore, Maryland, USA
4Bar-Ilan University, Ramat Gan, Israel

While the study of psychological trauma has traditionally focused on the development of individual symptoms in the person directly exposed to a traumatic event, research over the past 20 years invites a more dynamic conceptualization of the recursive relationship between trauma, interpersonal relationships, and broader contextual factors that influence the expression and duration of traumatic stress (e.g., Figley & Kiser, 2013; Goff & Smith, 2005). Trauma exposure is a multifaceted and complex experience that uniquely impacts individual survivors, their loved ones, and the social systems in which they live. In particular, there appears to be a basic, yet important paradox involved within the interpersonal context of trauma as trauma frequently erodes the strengths of and has a negative impact on the very interpersonal relationships that could promote recovery and posttraumatic growth (Johnson, 2002). Due to the interpersonal nature of trauma, traditional intervention and recovery-focused therapy on an individual level may be inadequate. In Part 1 of this PMI, the presenters will describe models of systemic trauma, based on current theories, research, and clinical experience, including Family Systems Theory, Ecological Systems Theory, and Attachment Theory. Specifically, The Couple Adaptation to Traumatic Stress Model (Goff & Smith, 2005; Oseland, Gallus, & Nelson Goff, 2016) and the Family Adaptation to Trauma Model (Figley & Kiser, 2013) will be reviewed. The presentation will disseminate information regarding the presented models, the primary issues faced by traumatized systems (i.e., couple, family, and community), and methods to apply these models to empirical study of and clinical approaches with traumatized systems. In Part 2 of this PMI, the presenters will describe methods of engaging couple and family systems in trauma-informed systemic treatment approaches. This session will focus on practical skills for working systemically with couple and family systems, recognizing critical ethical issues in working with these groups, and addressing specific challenges that may be unique to trauma-exposed relational systems. Presenters have experience working in industrialized and developing countries with couples, families, and communities coping with traumatic stress. Thus, the aim of this session is to provide applicable knowledge for clinicians from diverse backgrounds to bridge the gap between empirical and clinical approaches to working with trauma survivors and their families.
Converging developments in basic and applied research suggest that posttraumatic stress and grief reactions are related yet different entities that call for different assessment measures and intervention components. Further, trauma and bereavement often co-occur, especially among adolescents—an age group at highest risk for exposure to violent crime, traumatic injury, and traumatic death. This PMI will cover recent advances in the treatment of the effects of trauma and bereavement in adolescence, including an evidence-based intervention for traumatized and bereaved adolescents—Trauma and Grief Component Therapy for Adolescents (TGCT-A). TGCT-A is an assessment-driven, modularized intervention that can be flexibly tailored according to the exposure histories, needs, strengths, and life circumstances of specific groups and individuals. We will begin with an overview of the developmental tasks, capacities, and needs of adolescents, and the window of opportunity offered by adolescence for intervention. We will then discuss recent advances in conceptualizing, assessing, and treating the interplay between trauma and bereavement as viewed through the lens of multidimensional grief theory. We will then present findings from domestic and international open field trials, qualitative studies, and a large-scale randomized controlled field trial, which show consistent evidence of the effectiveness of TGCT-A in reducing posttraumatic stress and maladaptive grief reactions, and improving academic performance, peer relationships, and pro-social behaviors. We will then discuss how TGCT-A components, paired with properly designed assessment measures, can be tailored to provide universal (broad-spectrum), targeted (specialized), and preventive (resilience-enhancing) services in school, juvenile justice, and child welfare settings. We illustrate methods for providing state-of-the-art treatment for posttraumatic stress and grief reactions to vulnerable adolescents with complex histories of trauma and loss in ways that abide by public health principles—including identifying high-risk groups, stratifying groups by exposure severity and type of need, and improving access to services. Given its utility for juvenile justice, we will review a recently published multi-year evaluation of TGCT-A paired with trauma-informed staff training (Think Trauma) at six residential facilities, which found significant pre-post reductions in posttraumatic stress, depression and anger symptoms, seclusions, and restraints. We will conclude with demonstrations of ways to use TGCT-A’s modularized design to customize intervention for either groups or individuals with different assessment profiles, as well as discussion of next steps in research and program dissemination.

Pre-Meeting Institute (PMI)
Half Day Morning PMI
8:30 AM to 12:00 PM
Dallas D2

PMI #5 Addressing Trauma and Grief in Adolescence: New Models, Measures, and Interventions
(Clin Res, Death-Dev/Int-Pub Health-Grief, Child/Adol, M, Global)

Saltzman, William, PhD(c)1; Layne, Christopher, PhD2; Kaplow, Julie, PhD, ABPP3; Pynoos, Robert, MD MPH4; Olfason, Erna, PhD, PsyD5; Marrow, Monique, PhD6
1California State University, Long Beach, Long Beach, California, USA
2UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
3University of Texas Health Science Center, Houston, Texas, USA
4University of Cincinnati, Cincinnati, Ohio, USA
5University of Kentucky Center for the Study of Violence Against Children, Lexington, Kentucky, USA

Patients who are reluctant to self-refer for psychotherapy are often more receptive to receiving behavioral health services integrated into medical care. Intervention with patients with histories of recent or past trauma presenting for primary care gives medical and mental health providers an opportunity to address the neurobiological aspects of

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trauma in an integrated fashion that fosters interdisciplinary collaboration. This pre-meeting institute (PMI) will address (1) the unique challenges and benefits of intervening with trauma survivors in primary care settings, (2) how to provide interdisciplinary trauma training that addresses impact of traumatic life events on patient health, (3) quick and efficient screening for trauma history, intimate partner violence, traumatic grief & loss, trauma due to injury, illness, or medical procedures (4) the continuum of trauma-informed interventions ranging from single session, short-term (EBTs), and patient education, and (5) how to provide linkage to community resources, including outpatient behavioral health, shelter, legal resources. Providers in primary care settings find themselves addressing the needs of survivors of abuse, natural & manmade disasters, traumatic grief & loss, medical trauma, and intimate partner violence. Interventions need to recognize the common clinical needs of survivors (e.g., coping with emotional & physical pain, grief & loss, finding meaning following painful experiences, and self-identity shifts from trauma victim to survivor) and simultaneously be flexible enough to address trauma-specific needs of survivors (e.g., avoidance issues, preparing for anticipated trigger situations). This PMI will focus on how to overcome barriers and limitations to providing trauma-informed care in primary care settings (e.g., short appointment slots, busy schedules, lack of resources for mental health services, limited financial and transportation resources, and treatment adherence issues). Case examples will be presented.
Half Day Afternoon PMI
Pre-Meeting Institute (PMI)
Half Day Afternoon PMI
1:30 PM to 5:00 PM
Dallas A2

PMI #7 Ethics for the International Trauma Specialists
(Global, Ethics-Global-Civil/War, Prof, M, Global)

Cherepanov, Elena, PhD
Cambridge College, Boston, Massachusetts, USA

An international trauma specialist provides services to highly vulnerable and culturally diverse populations around the world. The unprecedented scale of human suffering, complexity of psychological needs and limited resources create particular professional and personal challenges and puts special demands on making independent, responsible and ethical decisions in extraordinary and often unique circumstances. Adherence to ethical principles sets standards for practice, gives a sense of professional community (Williams, 2012) and ensures a shared framework in every humanitarian response. The international perspective offers a guidance for the competent trauma care based on the international humanitarian principles: humanity, neutrality, impartiality, and independence (UNOCHA, 2012). In the first part of the training, the participants will learn about international humanitarian norms, universal humanitarian values, and limits of humanitarian actions as they apply to the trauma work and research. In the second part, participants will use case scenarios to further explore the role and responsibility of an international trauma specialist in the setting with complex needs; moral, cultural and ethical dilemmas; advocacy, media and communication; and ethically questionable practices: rescue fantasy, imposing moral judgments; fostering psychological dependence; misuse of power, or ignoring survivors’ competency. The review of the signs and consequences of the burnout in the field work highlights the importance of self-awareness and self-care as corner stones of the professionalism, and offers relevant coping skills.

Half Day Afternoon PMI
Pre-Meeting Institute (PMI)
Half Day Afternoon PMI
1:30 PM to 5:00 PM
Dallas A3

PMI #8 Dropping the Trauma Account: Intro in to Cognitive Processing Therapy-Cognitive Only
(Practice, Clin Res-Clinical Practice-Cog/Int, Adult, I, Industrialized)

Dondanville, Katherine, PsyD¹; Resick, Patricia, PhD, ABPP²
¹University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA
²Duke University Medical Center, Durham, North Carolina, USA

CPT is an evidence-based cognitive therapy for PTSD and comorbid symptoms that can be implemented without a written account. For over a decade trainings in Cognitive Processing Therapy (CPT) have exclusively taught CPT including the trauma account as an assignment. Results from a dismantling study (Resick et al., 2008) indicate the trauma account is a non-essential element for symptom change. CPT-Cognitive Only (CPT-C) was found to be equally effective and more efficient than utilizing the traditional model. Most importantly, eliminating the trauma account may prevent patient drop-out. The purpose of this institute is to provide attendees the basics of cognitive processing therapy – cognitive only (CPT-C) and facilitate a discussion about making the transition for those practicing CPT with the trauma account. Clinicians may be more comfortable with providing the version of CPT that does require writing and reading a trauma account or may have been in the habit of doing so and are unsure of how to conduct the protocol without the written narrative. CPT-C is a systematic approach to treating PTSD in which participants are encouraged to feel their emotions and learn to think about their traumatic events differently. The institute includes a functional cognitive description of why some people do not recover after traumatization. Following a review of research on CPT-C, participants will receive an overview of the 12-session therapy, with an emphasis on the differences between CPT and CPT-C. The use
of Socratic Dialogue to facilitate emotional processing will be reviewed, along with research regarding who may respond better to treatment with or without a trauma narrative. Specific trauma details will be discussed and presented in video-recorded sessions. Role-play and consultation will be included.

Pre-Meeting Institute (PMI)
Half Day Afternoon PMI
1:30 PM to 5:00 PM
Dallas D2

PMI #10 Learning to Effectively Administer and Score the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5)
(Assess Dx, Clinical Practice-Res Meth-Train/Ed/Dis, N/A, M, N/A)

Bovin, Michelle, PhD1; Weathers, Frank, PhD2
1VA Boston Healthcare System, National Center for PTSD; Boston University School of Medicine, Boston, Massachusetts, USA
2Auburn University, Auburn, Alabama, USA

Reliable and valid assessment of posttraumatic stress disorder (PTSD) is essential for correctly identifying individuals with this debilitating disorder. Structured diagnostic interviews are considered the “gold standard” for assessing PTSD symptoms and establishing PTSD diagnostic status (Bovin, Marx, & Schnurr, 2015). Since its development in 1990 at the National Center for PTSD, the Clinician-Administered PTSD Scale (CAPS; Blake et al., 1990) has become the most widely used structured interview for PTSD (Bovin & Weathers, 2012). In response to the significant revisions made to the PTSD diagnosis for the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2013), the CAPS was recently revised to reflect the new criteria. The goals for the revision were to ensure correspondence with DSM-5, retain distinctive features and maximize backward compatibility with earlier versions of the CAPS, and streamline administration and scoring (Weathers, 2014). Initial evaluation of the CAPS-5 indicates that it maintains the excellent psychometric properties of its predecessors (Weathers et al., in preparation). Because the DSM-5 PTSD criteria constitute the current official definition of PTSD and reflect an updated conceptualization of the disorder, it is essential for clinicians and investigators to begin using DSM-5-compatible measures such as the CAPS-5 as soon as possible -- measures reflecting DSM-IV criteria are now outdated. However, because of the changes made to both the structure and the content of the CAPS-5, careful training on the new version of the instrument is required to ensure that the measure is administered and scored accurately. Accordingly, the purpose of this pre-meeting institute is to provide attendees with an in-depth examination of the CAPS-5 so they can begin to use it effectively in their own clinics and laboratories. This important and timely workshop will review the following topics:

1. The history of the CAPS and the rationale for the new format for the CAPS-5;
2. The three versions of the CAPS-5 and when each can be employed effectively;
3. Guidelines for standard administration and scoring;
4. Tips for effectively handling common challenges that occur during CAPS-5 interviews.

In order to provide a “hands-on” training experience, participants will watch a live mock CAPS-5 interview, score each item in real time, and have the opportunity to ask questions about the rationale behind administration and scoring decisions.

Pre-Meeting Institute (PMI)
Half Day Afternoon PMI
1:30 PM to 5:00 PM
Dallas D3

PMI #11 Working with PTSD in Refugees and Asylum Seekers
(Practice, Cul Div-Refugee-Torture-Theory, Adult, M, Industrialized)

Young, Kerry, PhD
Central and North West London NHS Foundation Trust, London, England, United Kingdom

Many countries across the world have seen a dramatic increase in the number of people seeking asylum. Currently, there are thought to be approximately 19 million official refugees worldwide (UNHCR, 2016). While estimates vary, we expect up to half of those seeking asylum to suffer from PTSD (Bogic et al., 2012; Turner et al., 2001). Thus, there is a pressing need for evidence-based interventions for treating PTSD in this group. There are well-established protocols for the effective treatment of
PTSD using trauma-focused therapies (e.g. Ehlers et al. 2005; McLean and Foa, 2011; Resick et al., 2012). However, there is relatively little information about how to adapt these therapies for PTSD resulting from multiple traumatic events in refugee populations. Currently, the weight of what evidence there is points to the effectiveness of Narrative Exposure Therapy (NET) (Schauer, Neuner & Elbert, 2005) in the treatment of multiply traumatized refugees and asylum seekers (see Robjant and Fazel, 2010 for a review). There has also been some work adapting Cognitive Processing Therapy (CPT) (Kaysen et al., 2011; Bass et al., 2013) and standard Imagery Rescripting (ImRS) protocols in this population (Arntz et al., 2013). In this workshop, I will give participants a theoretical and practical framework for the cognitive-behavioural assessment and treatment of refugees and asylum seekers with PTSD, using the aforementioned evidence base as a guide. Topics covered will be:

- Working with interpreters
- Cultural modifications of trauma-focused therapy
- What to consider at assessment
- What theoretical framework to use for formulation
- Treatment planning
- How to do reliving and other evidence-based treatments with people who have experienced multiple traumatic events
- Outcome research in this area

The workshop will involve formal presentations, case discussion, lots of video role-play of techniques and group discussion.
Keynote Panel  
Wednesday, November 9  
6:30 PM to 8:00 PM  
Dallas B/C  

Responding to Terror Attacks: What are the Right Ways to Act?  
(Prevent, Acute-Journalism-Pub Health-Terror, Lifespan, I, Global)  

Dyb, Grete, MD PhD¹; Shapiro, Bruce²; Brewin, Chris, PhD³; Svendsen, Tuva, Medical Student⁴; Pirard, Philippe, MD PhD⁵; Brymer, Melissa, PhD, PsyD⁶; Pynoos, Robert, MD MPH⁷  
¹Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Norway  
²Dart Center for Journalism and Trauma, New York, New York, USA  
³University College London, London, United Kingdom  
⁴The Arctic University of Tromsø, Tromsø, Norway  
⁵National Institute of Public Health, Saint-Maurice Cedex, France  
⁶National Center for Child Traumatic Stress at UCLA, Los Angeles, California, USA  
⁷UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA  

Since the attacks on the U.S. in 2001 and the Madrid train bombing in 2004, there have been an increasing number of terrorist incidents around the world. Professionals in the field of traumatic stress have a particular responsibility to support health authorities in developing and implementing the best strategies in acute crisis and the aftermath of terror. How do we meet these challenges? Panelists with experiences from terror attacks across the world present suggestions for future responses.  

Based on the worldwide work of the Dart Center for Journalism and Trauma, Bruce Shapiro will discuss the role of media in resilience, recovery and social policy following large-scale atrocity and explore ways for important knowledge from the trauma field to be communicated more effectively through news media.  

Drawing on his experiences after the 2005 London bombings, Chris Brewin will emphasize the difficulty in identifying and following up survivors after incidents involving dispersed populations, such as transport incidents and attacks on public gatherings. He will discuss strategies for ensuring longer term mental health needs are met. Tuva Svendsen is a medical student at the Arctic University of Norway. In July 2011 she survived the Utøya terror attack where 69 young people attending a summer camp were killed by a single perpetrator. Sharing her personal experiences in fighting her way back to a normal life gives a unique insight in the user perspective of trauma outreach programs.  

Last year’s attack in Paris challenged the organization of medical and psychological outreach to victims and an epidemiologic study showed a high proportion of traumatized civilians with unmet needs. Philippe Pirard and co-authors Thierry Baubet, Stéphanie Vandentorren and Yvon Motreff therefore concluded that we need to enlarge the scope of the population to be contacted and ensure more structured early outreach through novel initiatives to reach exposed persons on web-based platforms.  

Robert Pynoos and Melissa Brymer will describe how the National Child Traumatic Stress Network has collaborated with partners to respond to the needs of children and families after terrorist attacks worldwide. Future directions for response and recovery programs for children, adolescents, and families after terrorism will be discussed and recommendations for expanding services for underserved populations and for addressing different cultures.
Thursday, November 10

Keynote Address
Thursday, November 10
8:50 AM to 9:50 AM
Dallas B/C

The Epidemiology of Trauma and PTSD
(Pub Health, Chronic-Complex-Global-Prevent, Adult, A, Global)

Kessler, Ronald, PhD
Harvard Medical School, Boston, Massachusetts, USA

This presentation will provide an overview of results from the World Health Organization’s World Mental Health (WMH) Surveys on the epidemiology of trauma and PTSD. The WMH Surveys are a coordinated series of mental health needs assessment surveys carried out in representative national and regional household surveys to support mental health policy planning efforts in countries throughout the world. WMH surveys have been completed to date in 25 countries in the America, Europe, the Middle East, Africa, Asia, and the Pacific. Each WMH survey asks respondents about lifetime prevalence, age-of-onset, and course of a wide range of common mental and substance disorders. PTSD is one of these disorders. WMH respondents are also asked about lifetime history of exposure to a wide range of traumas. The presentation will focus on the distribution and clustering of trauma exposure; differential risk of PTSD onset and persistence across trauma types as a joint function of age of exposure and prior trauma history; and the role of temporally prior mental and substance disorders in predicting trauma exposure, risk of PTSD after trauma exposure, and course of PTSD after onset. Clinical and public health implications of results will be pointed out throughout the presentation.
CONCURRENT SESSION ONE

Invited Symposium
Thursday, November 10
10:15 AM to 11:30 AM
Dallas B/C

How Novel Technology may Support a Public Health Approach to Trauma and Its Consequences around the World
(Global, Global-Pub Health-Tech, Lifespan, M, Global)

Olff, Miranda, PhD
Academic Medical Center at the University of Amsterdam and Arq Psychotrauma Expert Group, Amsterdam, Netherlands

Around the world, millions of adults as well as children each year experience potentially traumatic events. Especially when events happen on a large scale such as in the case of disasters, migration or highly prevalent events, clinical resources may be limited. The growth of phone and mobile access does enable opportunities for electronic mental health (eMental Health) interventions. We can also more easily address specific contexts and for diverse cultures. However, with all the potential there is for a big step forward towards efficient mental health approaches the biggest challenge may be to provide evidence based resources that are culturally-relevant, and truly accessible. In this symposium we discuss how novel technologies may support our public health goals. Joe Ruzek will present on the mobile technology applications developed at the National Center for PTSD and explore issues related to scaling up: using web and phone technologies to assist trauma survivors globally. Ruzek, Josef, PhD, VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA. An expanding suite of mobile technology applications has been developed by a team at the National Center for PTSD, for use by Veterans with post-deployment stress problems. These tools illustrate the emerging capacity for phone apps and web interventions to support delivery of mental health services. To make such technologies available for trauma survivors globally will require addressing a range of challenging issues that go beyond the design and construction of the technology tools. These include developing capabilities for rapid redesign of apps, speeding up the research process to keep pace with technology developments, finding ways to organize and manage the exponential increase in mental health technology interventions, creating innovative ways of providing the support or guidance needed for successful self-help, planning for sustainable use of the technological interventions, and identifying or creating and funding organizations tasked with development and implementation of trauma-related technologies globally.

Reaching Populations in Need: A Protocol for developing an eMental Health Intervention for Migrant Workers
(Global, Global-Pub Health-Tech, Lifespan, M, Global)

Hall, Brian, PhD
University of Macau, Taipa, Macau (SAR), China

Migration is a worldwide phenomenon and developing interventions that can be easily applied...
within various contexts and for diverse cultures is a global mental health challenge. Electronic mental health (eMental Health) interventions have proven effective in the treatment of common mental disorders in high income contexts. These interventions are especially useful when applied within populations that lack sufficient access to mental health services. Migrant communities typically face substantial barriers to obtain mental health services due to the lack of care providers, language barriers, cost, and social stigma. This presentation will describe a protocol to adapt an intervention for use within migrant communities in China, which utilizes an eMental health platform. The mixed methods protocol, incorporating qualitative and quantitative data will be described, with a particular emphasis on cultural and contextual challenges in implementation.

Using Hope Stories to Facilitate Resilience: A Public Health Approach

(Global, Global-Pub Health, Lifespan, M, Global)

Ho, Samuel, PhD, PsyD1; Zhang, Eugene, PhD2
1City University of Hong Kong, Hong Kong, China
2Chinese Academy of Sciences, Beijing, China

In the past decades, we have witnessed many disastrous events in China, including the 2003 SARS outbreak, 2008 Sichuan Earthquake, and more recently the earthquake near Ya’an city of the Sichuan province. A body called the National Alliance of Psychological Aid for disaster victim was established in April 2015 by the Chinese Academy of Sciences to promote post-disaster management in China. Hotlines, mobile apps and e-mental health tools have been established to aid assessment and intervention. This presentation will give a brief introduction on the work of the body first. Some interventions based on public health model will be presented in more details next. Our research findings revealed that dispositional hope (Snyder et al., 2005) has consistently been found to be a significant predictor of resilience among different populations (Ho et al., 2010; Ho & Kwong, 2012; Ho et al., 2011). A series of hope story books were developed for children of deprived families, childhood cancer patients, and children with special needs. A previous research used a public health model to examine the effect of reading hope stories on resilience among deprived children. Parents were asked to read hope stories to their children continuously over one month. No knowledge of hope as well as cognitive training on hope were included in the program. Parents in the intervention group exhibited an increase in hope level after story telling training, and this effect can maintained for 4 weeks as well as 3 months. Children in the intervention group, but not children in the control group, tended to report an increase in happiness level and an increase in familial harmony, and these effect can be maintained after 3 months. Since reading of hope stories per se would produce a beneficial outcome, hope stories can be read online or via electronic devices (e.g. tablet in cancer ward) so that children under or after a traumatic encounter can read hope stories to increase resilience. Our current e-mental health approaches to deliver hope stories to children with traumatic experiences will be discussed.

Addressing the Population-level Burden of Child Trauma: The Promise and Challenge of eHealth Tools

(Global, Global-Pub Health-Tech, Lifespan, M, Global)

Kassam-Adams, Nancy, PhD
University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA

Around the world, millions of children each year experience potentially traumatic events. While many recover well, a significant number go on to develop posttrauma mental health sequelae including posttraumatic stress. While in-person clinical resources are limited, and may not be necessary for many trauma-exposed children, technology has the potential to greatly expand population-level access to empirically-sound resources. The growth of phone and mobile access could enable electronic health (eHealth) tools to reach large numbers of children and families - even beyond the industrialized world. The evidence base is growing for the use of eHealth tools that provide timely access to information, screening, secondary prevention, and even treatment. Advantages include the potential to engage children and youth via gamified and interactive features, and a low marginal cost of delivery once an eHealth tool is created. Challenges can include costs of initial development and updates, and appropriately addressing parents’ role in child-directed eHealth tools. This presentation will address lessons learned regarding practical development processes and dissemination models, and provide an update on current research. A thoughtful approach to eHealth
tools addressing traumatic stress in children is needed to ensure that these tools are effective, culturally-relevant, and truly accessible.

Invited Symposium
Thursday, November 10
10:15 AM to 11:30 AM
Houston Ballroom C

Gun Violence and its Impact on Society
(Commun, Comm/Vio, Lifespan, M, Global)

Kenardy, Justin, PhD¹
Greene, Carolyn, PhD²
Shultz, James, PhD³
¹The University of Queensland, Herston, Queensland, Australia
²Department of Veteran Affairs, Menlo Park, California, USA
³University of Miami Miller School of Medicine, Miami, Florida, USA

Gun violence has become an all too common experience. This is at a level where the frequency of mass gun violence has meant that it becomes "yesterday's news" relatively swiftly and also chronic urban gun violence that is so routine that it does not even make the news. This special symposium aims to highlight the often under-recognized impacts of gun violence on the community. Speakers will report on aspects of gun violence impact. Siri Thoresen will explore community responses to the 2011 attack in Norway. Heather Littleton will discuss Lessons learned from a study of victims of the Virginia Tech campus shooting. Bradley Stolbach will address the effects of gun violence in Chicago's youth. Finally James Schultz will provide a summary and implications of the symposium.

Community Responses to the 2011 Attack in Norway: Psychological Proximity, Emotional Responses, Trust in Government and Attitudes towards Safety Measures
(Pub Health, Cul Div-Health-Terror, Adult, M, Industrialized)

Thoresen, Siri, PhD; Hjemdal, Ole, MA

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

In the 2011 Norway attack, a bomb was detonated at the Governmental Quarter, followed by a shooting spree on Utøya Island, killing 77 individuals. The young people gathered at the summer camp on Utøya Island represented all Norwegian counties, and the attack was considered a national tragedy. We conducted a cross-sectional telephone interview study of the general Norwegian population 4-5 months after the attack, to investigate psychological proximity and emotional responses, and their potential associations with trust in government and attitudes towards safety versus openness in society. The response rates were approximately 42% in Oslo (O) and 32% in other parts of Norway (N). In this small country, large proportions in both samples confirmed psychological proximity to the attack, e.g. by worrying about the safety of someone close (O=65%, N=49%), or having personal relations to victims or survivors (O=28%, N=23%). Participants reported a high intensity of early affective responses dominated by sadness and a sense of unreality. About one in four reported to feel less safe than before, and this perceived loss of safety was associated with less trust in the police and the justice system, as well as positive attitudes towards increased safety measures. Our results indicate that gun violence may affect well-being, perceived safety, trust, and attitudes in the community.

At the Intersection of Developmental Trauma and Historical Trauma: Addressing the Effects of Gun Violence in Chicago's Youth
(Pub Health, Acc/Inj-Chronic-Comm/Vio-Surv/Hist, Child/Adol, M, Industrialized)

Stolbach, Bradley, PhD¹; Reese, Carol, MDiv, LCSW²; Joseph, Kimberly, MD²
¹University of Chicago, Chicago, Illinois, USA
²John H. Stroger, Jr. Hospital of Cook County, Chicago, Illinois, USA

In recent months, gun violence in Chicago has reached levels not seen since the 1990s, with unprecedented numbers of Black and Brown children and teens among the injured. Many young people coping with the ongoing threat of violence in their neighborhoods exhibit symptoms of Posttraumatic Stress Disorder consistent with those seen in traumatized combat veterans yet rarely have access to psychological intervention. Using anecdotal and...
quantitative data from a pediatric trauma-informed hospital-based violence intervention program in Chicago, this presentation will explore the ways in which developmental trauma, structural violence, and chronic adversity perpetuate the risk for violence and community trauma. Current promising approaches to trauma-informed intervention with youth affected by gun violence will be described and preliminary outcomes from 50 youth who participated in 6 or more months of intensive case management and/or trauma psychoeducation groups will be presented. Pilot analyses suggest that participation in trauma-informed violence intervention services promotes trauma recovery and reduces the likelihood of reinjury, retaliation, and criminal justice system involvement. Implications for clinicians and researchers working with young people of color in urban contexts and the importance of public health approaches to community violence will be discussed.

**Predictors of Adjustment following Gun Violence: Lessons Learned from a Study of Victims of the Virginia Tech Campus Shooting**

(Clin Res, Comm/Vio-Social, Adult, M, Industrialized)

Littleton, Heather, PhD

*East Carolina University, Greenville, North Carolina, USA*

Incidents such as mass shootings are best thought of as communal traumas, leaving members of whole communities affected in their wake, as opposed to only affecting those most severely and directly exposed. The current presentation summarizes findings from a longitudinal study of 363 college women exposed to the 2007 Virginia Tech campus shooting who were assessed prior to the shooting as well as at 2, 6, and 12 months post shooting. Trajectories of general adjustment and PTSD symptomology over the course of one year post-shooting will be presented. Additionally, potential risk and protective factors such as pre-shooting adjustment, pre-shooting trauma history, shooting exposure and trauma appraisals, resource loss and gain, social support, and coping will be discussed. Implications of the findings for understanding which individuals are most vulnerable to poor adjustment following such events are presented, as well as potential protective factors which could result in resilience, recovery, or even improved functioning among those living in gun violence affected communities. Finally, some suggestions for the development of intervention strategies to reduce the impact of gun violence among communities are presented.

**Symposium**

**Thursday, November 10**

**10:15 AM to 11:30 AM**

**Dallas A1**

**How does Media Coverage of Traumatic Events Impact the Populace and Those Who Report It? Evidence from Survey and Experimental Research**

(Pub Health, Journalism, Adult, I, N/A)

Garfin, Dana Rose, PhD¹; Galea, Sandro, MD, DrPH²

¹University of California, Irvine, Irvine, California, USA ²Boston University, Boston, Massachusetts, USA

Evidence suggests both direct and media-based exposure to traumatic events may impact the population broadly. Those exposed through the media - as well as those involved in creating its content - may experience distress and adverse outcomes that impair functioning and have implications for public health. This symposium will explore the impacts of media exposure to trauma on the psychological health of the population in general and the photojournalists who report on these events. Two epidemiological studies will present data on 1) the prospective impact of media-based exposure to the 2013 Boston Marathon bombings over time, and 2) public health outcomes associated with media exposure to the 2014 Ebola crisis. Laboratory data that elucidate the neurological mechanisms underlying the transmission of traumatic images into posttraumatic stress (PTS) responses will then be presented. The symposium will conclude with results from a survey of over 500 journalists that describe how reporting on trauma is associated with PTS in photojournalists and photo editors. Our discussant, Sandro Galea, will draw from his expertise and extensive research on trauma, media-exposure, and public health to comment on this research.
**Hours vs. Images: Understanding how Media-based Collective Trauma Exposure is Linked to Psychological Well-being**  
(Pub Health, Terror, Adult, I, Industrialized)

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

Prior research shows that media exposure to collective trauma is linked with subsequent psychological symptoms, but the unique contributions of quantitative and qualitative components of media exposure to these symptoms remain unknown. We surveyed a nationally representative sample of Americans soon after the 2013 Boston Marathon bombings (BMB) and again two years later (N=3229). Controlling for demographics, pre-BMB mental health, direct BMB exposure, and BMB-related acute stress, path analyses revealed significant relationships between BMB-related media exposure (amount and type of images) and several outcomes two years later, including general worries/fears about future events, BMB-related posttraumatic stress (PTS), and functioning. More media exposure and more frequent exposure to bloody images soon after the BMB were associated with increased symptoms over time. Direct and indirect effects were evident for the relationships between media-based exposure and general worries/fear and functional impairment; acute stress fully mediated the link between media-based exposure and BMB-related PTS. Results demonstrate that early media-based exposure to a collective trauma is associated with negative psychological outcomes and functioning years later. Acute stress responses may play a critical role in identifying who is at-risk for maladaptive outcomes over time.

**Media Exposure to the Ebola Public Health Crisis and Implications for Public Health in an Industrialized Nation**  
(Pub Health, Health, Adult, I, Industrialized)

**Garfin, Dana Rose, PhD¹; Holman, E. Alison, PhD¹; Fischhoff, Baruch, PhD²; Wong-Parodi, Gabrielle, PhD²; Cohen Silver, Roxane, PhD¹**  
¹University of California, Irvine, Irvine, California, USA  
²Carnegie Mellon University, Pittsburgh, Pennsylvania, USA

The Ebola virus outbreak that directly traumatized many West Africans received extensive media coverage worldwide that included images of the sick, dead, and dying. For four weeks starting 12/29/14, we surveyed a representative, national sample of Americans (N=3,447), exposed to Ebola almost exclusively via media coverage, to explore psychological mechanisms linking media exposure to traumatic imagery and health protective behaviors. Structural equation modeling examined relationships between type (e.g., graphic images of dead bodies) and amount (hours/day) of Ebola-related media exposure, risk perceptions of contracting Ebola, Ebola-related worry, and two kinds of health protective behaviors: avoidance (avoiding public places or transportation) and action (using hand sanitizer, wearing face mask). Both amount and type of media exposure correlated with increased Ebola-related worry. Graphic image exposure was directly and indirectly related to action and avoidance health protective behaviors. Amount of Ebola-related media exposure exhibited effects on health protective behaviors through its relationship with increased risk perceptions and worry. Implications for effective use of media to promote public health while minimizing distress will be discussed.

**Intrusive Memories Following Film Footage with Traumatic Content: Insights from Experimental Psychopathology**  
(Prevent, Cog/Int-Prevent-Pub Health-Res Meth, Adult, I, N/A)

**Holmes, Emily, PhD; James, Ella, PhD**  
*University of Cambridge, Cambridge, Cambridgeshire, United Kingdom*

A greater understanding of indirect exposure to traumatic events via the media is required. An experimental psychopathology approach allows us to examine the impact of film exposure in controlled conditions. We are interested in mental imagery in the form of intrusive memories which can intrude to mind unbidden following trauma. We use the laboratory-based trauma film paradigm to study intrusions in healthy volunteers. Participants view film-fooage with traumatic content, and the
frequency of intrusive memories is monitored in a daily-life using a diary over one week, allowing us to study the impact of film viewing and potential methods of reducing subsequent intrusions. Studies have shown that memories that have consolidated and are ‘fixed’ in mind can be ‘reactivated’ rendering that memory labile and vulnerable to change. We will discuss recent experimental research which has shown a procedure involving memory reactivation plus Tetris game-play led to fewer subsequent intrusions of an experimental trauma compared to memory reactivation or Tetris game-play in isolation (James et al. 2015, Psych Sci.) Findings suggest brief non-invasive methods to ameliorate intrusive memories after trauma-exposure via media.

**Posttraumatic Stress among Photojournalists: An Occupational Hazard of Repeated Exposure to Trauma**  
(Journalism and Trauma, Civil/War, Adult, I, N/A)

**Redmond, Sarah, Doctoral Student;** Cohen Silver, Roxane, PhD; Lubens, Pauline, PhD Candidate  
*University of California, Irvine, Irvine, California, USA*

Photojournalists convey the toll of traumatic news events, including accidents, disasters, and war, and report these events to the public. As a result, those who work in photojournalism often directly witness high amounts of trauma and/or are indirectly exposed to traumatic events through photoediting, production, and distribution. We administered a survey to photojournalists and photoeditors (N=570) who belong to the National Press Photographers Association to examine the relationship between covering traumatic events and mental health. Respondents had been working as photojournalists on average 22 years. Over 40% of the sample met criteria for probable PTSD, although less than 10% had been formally diagnosed. Analysis comparing the impact of covering several different events revealed that covering war (β=.238, p<.05) and other violent events (β=.258, p<.05) were significantly associated with posttraumatic stress symptoms. Among those who covered war, photographing wounded civilians was significantly associated with PTS symptoms (β=.137, p<.05). Although the psychological consequences of media exposure to graphic images of trauma has received increased attention, the occupational hazard of this exposure among those who bring the news to the public has been underappreciated. Findings suggest the potential need for wider PTSD screening for those in photojournalism.

**Symposium**  
**Thursday, November 10**  
10:15 AM to 11:30 AM  
**Dallas A2**

**New Computational Methods for PTSD Research**  
(Res Meth, Res Meth-Tech-Genetic-Neuro, Lifespan, M, N/A)

**Saxe, Glenn, MD**¹; **Marmar, Charles, MD**²  
¹New York University Langone Medical Center, New York, New York, USA  
²New York University School of Medicine, New York, New York, USA

New and powerful computational methods are now available for PTSD research, including algorithms related to machine learning predictive classification, causal discovery, and complex systems science. These methods may prove particularly valuable to enable the use of vast quantities of information from data sets containing molecular, genomic, and brain imaging information: and to integrate this information with other modalities such as developmental, psychological, and social variables. This symposium features the research of four investigators who have successfully applied these computational methods to research on PTSD. The presentations describe the application of: 1. Causal discovery, network science, and machine learning methods to predict PTSD in injured children and to identify preventative intervention strategies, 2. Machine learning to predict PTSD in police academy recruits, 3. Machine learning to predict PTSD in acutely traumatized adults, and 4. Brain entropy measurement for childhood PTSD. Following these presentations, a discussion will focus on the computational methods presented, their promise for PTSD research, and their relative tradeoffs compared to more conventional data methods used in the field.
Risk Factors for PTSD in Children: New Computational Methods
(Res Meth, Acc/Inj-Bio Med-Generic, Child/Adol, M, N/A)

Saxe, Glenn, MD
New York University Langone Medical Center, New York, New York, USA

This presentation features two studies that apply new computational methods to determine risk for PTSD in children. The first study employs a unique approach called the Complex Systems-Causal Network (CS-CN) method designed to discover sets of variables related to psychiatric disorders that - together - possess well-known properties of Complex Adaptive Systems (e.g. efficiency of information transfer, modularity, power-law scaling, robustness). Once such a network of variables is found, the CS-CN method then identifies the variables that disproportionally contribute to its defined adaptive properties, and then models the impact on the adaptive network of ‘removal’ of these variables (as these variables may represent promising intervention targets). The second study employs Machine Learning (ML) to identify variables that form accurate predictive models of PTSD. These studies were conducted with a longitudinal data set of risk variables in 163 acutely injured children. Results of the first study revealed an adaptive network of 110 variables and 166 bivariate relations. The variables that most contributed to its adaptive properties were CRHR1 gene, FKBP5 gene, age, socioeconomic status, and acute anxiety. The second study revealed a highly reliable and accurate predictive model for PTSD from variables measured around the time of trauma.

Identification of High Dimensional Genetic & Phenotypic Interactions that Regulate the Emergence of Posttraumatic Stress & Resilience following Life Threat in a Prospective Cohort of Police Officers
(Bio Med, Acute-Chronic-Sleep-Genetic, Adult, M, 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

High dimensional interactions among genes and environmental factors likely alter intermediate phenotypes of neurobiological and behavioral functioning underlying posttraumatic response. Identifying such interactions represents an unrealized challenge. The current work integrates a suit of supervised and unsupervised machine learning methods to characterize the course of posttraumatic stress responses, identify potentially malleable points of intervention, and determine the classification accuracy of multi-model data (including gene SNPs, endocrine and physiology, non-genetic risk, and behavior) in a prospective cohort of urban police officers exposed to life threatening events and followed annually for the first 6 years of police service. Findings indicate that sleep abnormalities represent a behavioral dimension that connects genetic, endocrine, and early life risk to sustained posttraumatic stress responses, indicating that it may represent an accessible point of intervention to enhance resilience. Modeling information assessed during academy training combined with features assessed following duty-related life threat exposure at the end of the first year is highly predictive of distress and resilience trajectories across six years of service (mean AUC across 5X10 fold cross validations = .86; C.I. = .73-.99).

Advanced Computational Methods Improve the Prediction of Posttraumatic Psychopathology in Acutely Traumatized Adults.
(Assess Dx, Acute-Assess Dx-Bio Med-Prevent, Adult, M, Global)

Shalev, Arieh, MD1; Galatzer-Levy, Isaac, PhD1; Qi, Wei, MD1; Gevonden, Martin, 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

Predicting PTSD at the early aftermath of trauma is a prerequisite for efficient prevention. Prediction tools to date used group probabilities and had limited utility for individual prediction. These models falsely assumed that the population at risk was homogeneous and, as such, accurately represented by group averages and dispersion around the mean. They also used PTSD – or other diagnostic categories as the...
predicted outcome, whereas post-traumatic psychopathology encompasses an array of disabling conditions. Models used to date had major difficulties integrating different types of predictors (e.g., symptoms, trauma features, physiological responses, biological and biographic vulnerability), each of which having different scales and distribution patterns. This presentation will summarize a series of new studies in which the predicted outcome better reflects population heterogeneity, multimodal predictive features are integrated, the results discern biological mediators in subgroups of individuals at risk and are amenable to individual prediction. Methods used (Latent Growth Mixture Modeling to better delineate outcome; Supervised Machine Learning to predict from multimodal features, and Causal Graph Modeling to discern causal pathways in subsets of survivors) will be clarified and presented in the context of their current and future clinical applications.

Brain Entropy as a Substrate of Psychological States in Trauma Victims

Calderone, Daniel, PhD
New York University Langone Medical Center, New York, New York, USA

Entropy is a measure that quantifies the order or disorder present in a system. The entropy of brain imaging signals such as functional magnetic resonance imaging (fMRI) and electroencephalography (EEG) reveals information not captured by more traditional summary measures. High brain entropy indicates a variety of accessible brain states, while low brain entropy reflects repetitive or limited brain dynamics. Psychopathologies such as anxiety and depression, and post-traumatic stress disorder (PTSD) in particular, involve becoming “locked in” to a narrow range cognitive and emotional mental states. Conversely, those who experience trauma but do not develop PTSD may have access to a wider range of coping strategies. Brain entropy is proposed as a neural substrate of these psychological phenomena. Entropy measures were calculated for fMRI scans from children in the Philadelphia Neurodevelopmental Cohort (N = 979). Preliminary results showed increases in entropy associated with traumatic experiences. Of children who experienced trauma, those who developed PTSD had less entropy than those who did not. These results suggest a lack of available brain states in PTSD, and a possible increase in brain state repertoire for children resilient to trauma.

Symposium
Thursday, November 10
10:15 AM to 11:30 AM
Dallas A3

A Multi-Method Evaluation of Current Initiatives for Trauma-Exposed Children and Youth
(Commun, CPA-Comm/Int-DV-Fam/Int, Child/Adol, I, Industrialized)

Romano, Elisa, PhD, Cpsych
University of Ottawa, Ottawa, Ontario, Canada

Canadian researchers will consider (1) evaluation results for programs, interventions, and practices associated with childhood maltreatment and out-of-home care, (2) multi-level factors (e.g., child, family, community) influencing these evaluation results, and (3) program as well as policy implications for addressing childhood maltreatment. Presentations will examine this topic for children and youth living in either biological or out-of-home care, and across early childhood to adolescence, as a way to highlight environmental and developmental considerations. Presentations will also explore various evaluation methodologies that can be applied to advance understanding of current initiatives for children and youth who have experienced maltreatment; these include pre- and post-intervention comparisons, program evaluability assessment, scoping review, and meta-analysis. Overall findings indicate that current initiatives developed specifically for children, youth, and others involved in their care (e.g., caregivers, community partners) are having a positive impact on maltreatment-related outcomes; however, a number of child, family, and community variables influence the nature of impact.
Meta-Analysis of Interventions for Children Exposed to Intimate Partner Violence
(Clin Res, DV-Res Meth, Lifespan, I, N/A)

Saini, Michael, PhD; Romano, Elisa, PhD, Cpsych; Bell, Tessa, Doctoral Student
1University of Toronto, Toronto, Ontario, Canada
2University of Ottawa, Ottawa, Ontario, Canada

Exposure to intimate partner violence (IPV) affects numerous children worldwide. In Canada, incidence estimates indicate that 34% of substantiated child welfare investigations in 2008 were due primarily to IPV exposure. IPV interventions have been developed that work with children and/or caregivers. There remains, however, limited evidence regarding best practices for IPV-exposed children. We conducted a meta-analysis drawing from several literature reviews on IPV exposure interventions, and we also examined potential moderating effects on intervention outcomes. We identified 6 reviews dating back to 2003; from these, data from 65 intervention studies were extracted and analyzed using Comprehensive Meta-Analysis software. This random effects model analysis used Cohen’s d indices to compare various treatment outcomes. Preliminary analyses indicate approximately 130 pre-to post-intervention comparisons, most notably on child outcomes (i.e., internalizing/externalizing behaviours). In almost all studies, intervention type was not well-specified although about 25% indicated using trauma-focused cognitive-behavioural therapy while another 20% used a combination of cognitive-behavioural and systemic interventions. The treatment format was primarily group (55%) followed by dyadic (30%; child/caregiver), and the total number of sessions ranged from 3-50 (mean=10-12).

Permanency and Safety among Children in Foster Family and Kinship Care: A Scoping Review
(Clin Res, CPA-Prevent-Res Meth, Child/Adol, I, N/A)

Bell, Tessa, Doctoral Student; Romano, Elisa, PhD, Cpsych
University of Ottawa, Ottawa, Ontario, Canada

Over the past 25 years, kinship care placements have risen dramatically, such that when a child enters into care, child welfare agencies must first attempt to identify safe living arrangements with relatives or individuals known to the child before searching for alternatives. Despite the growing emphasis on kinship care, little is known about its impact on child outcomes in comparison to other placement types. Therefore, the aim of this scoping review was to evaluate quantitative research on children in out-of-home care from 2007 to 2014 with regard to the following outcomes: (1) permanency (i.e., reunification, reentry, placement stability, and adoption/guardianship) and (2) safety (e.g., additional reports to child welfare). The review identified 54 studies that examined permanency and safety among children in two major placement types (foster family and kinship care). Across studies, children in kinship care experienced greater permanency in terms of a lower rate of reentry, greater placement stability, and more guardianship placements in comparison to children living with foster families. Children in kinship care, however, had lower rates of adoption and reunification. The findings also indicated that differences in these variables diminish over time. Findings for safety outcomes were mixed. Study limitations and recommendations for future research are considered.

How useful is a Community-Based Partnership Model to Support Educational Outcomes for Foster Care Youth?
(Commun, CPA-Comm/Int-Prevent, Child/Adol, I, Industrialized)

Weegar, Kelly, PhD Candidate; Fall, Mariama, PhD Candidate; Hickey, Andrea, PhD Candidate; Shewchuk, Samantha, PhD Candidate; Flynn, Robert, PhD
1University of Ottawa, Ottawa, Ontario, Canada
2Queen's University, Kingston, Ontario, Canada

Youth in out-of-home care, who often report past and/or current trauma, face multiple barriers to succeeding in school and pursuing further education (e.g., frequent school disruptions). In 2007, a community-based partnership model was implemented in Ontario, Canada to support foster care youth by increasing their awareness, participation and success at all levels of their education, including post-secondary education and employment. These partnerships, known as Crown Ward Education Championship Teams (CWECTs), include local child welfare agencies, school boards,
post-secondary institutions, and employment services. In this study, an evaluability assessment of this province-wide initiative was conducted using one of the CWECTs representing 208 foster care youth. Specifically, this evaluation (the first of which we are aware) aimed to determine if the program was meeting the unique educational needs of foster care youth and others involved in their care (i.e., caregivers, community partners), as well as examine reputational outcomes. Preliminary analyses indicate several strengths (e.g., knowledge dissemination) and limitations (e.g., misguided interventions) in this partnership model. Findings have important implications for community programs aiming to minimize barriers and promote educational and employment success for foster care youth, including those with trauma histories.

### Understanding Outcomes of the SafeCare® Program for Child Welfare-Involved Families: A Focus on Provider and Parent Assessments

**Romano, Elisa, PhD, Cpsych:** Gallitto, Elena, PhD Student; Czechowski, Karina, BA (Hons)

*University of Ottawa, Ottawa, Ontario, Canada*

In Ontario (Canada), child neglect is a significant problem, with provincial incidence data suggesting that 24% of all substantiated child welfare investigators in 2013 were primarily neglect. There are, however, few evidence-based programs for Canadian families involved in child welfare because of maltreatment related primarily to neglect. We have been addressing this gap through the implementation and evaluation of the SafeCare® home visitation program across 6 Ontario welfare agencies that have trained 33 providers. We examined how SafeCare® providers’ assessments of parents’ progress throughout the program mapped onto parents’ self-reported pre- to post-intervention scores. Preliminary findings on 30 parents indicated a statistically significant decrease in self-reported internalizing and externalizing behaviours following the program (t=-2.12, p < .05). Provider ratings also indicated statistically significant improvements for parents across the SafeCare® modules - child health (t=7.19, p < .001), child safety (t=5.09, p < .001), and parent-child interaction (t=5.82, p < .05). Finally, increased safety in families’ homes (as assessed by providers) was significantly linked with decreased parent-reported violence toward a partner (β=.026, p< .05). These findings speak to the importance of linking implementation and evaluation data to better understand program effects.

### Symposium

**Thursday, November 10**

**10:15 AM to 11:30 AM**

**Dallas D1**

### Sex Specificity in Posttraumatic Stress Disorder: From Biological Mechanisms to Treatment Response

**Felmingham, Kim, PhD**

1*University of Tasmania, Hobart, Tasmania, Australia*

2*Emory University School of Medicine, Atlanta, Georgia, USA*

This symposium draws together research examining sex specificity in the development and treatment of PTSD. This topic is of fundamental importance as epidemiological research reveals that a greater risk for PTSD in females (Kessler et al., 2005), yet relatively little is known about the mechanisms involved. Recent animal and human evidence is suggesting a critical role of steroid hormones in influencing various mechanisms involved in PTSD, such as fear extinction recall (Graham & Milad, 2012). This symposium presents novel research from researchers and clinicians of sex specificity in biological mechanisms that underlie PTSD which have important treatment implications for men and women. Findings will be presented from a prospective study revealing greater prevalence of PTSD in women, with a discussion of potential glucocorticoid and hormonal mechanisms involved. Two experimental studies will be presented which reveal sex specific effects: an animal study examining the blockade of the neurosteroid Allopregnanolone, and a human fear reinstatement study examining relapse of fear. Finally, a meta-analysis of sex differences in exposure-based treatments will be presented.
Prospective Study of Sex Differences in the Development of PTSD: Why Women are at Higher Risk
(Prevent, Gender, Adult, M, Industrialized)
Michopoulos, Vasiliki, PhD, MS©1; Rothenbaum, Barbara, PhD, ABPP1; Ressler, Kerry, MD PhD2; Jovanovic, Tanja, PhD1
1Emory University School of Medicine, Atlanta, Georgia, USA
2Harvard Medical School, Belmont, Massachusetts, USA

Epidemiological studies illustrate that females are more at risk for PTSD than men. Thus, identifying biological pathways that increase risk for developing PTSD following trauma exposure specifically in women is critical for characterizing novel therapeutic targets. In the current talk, we will discuss findings from our ongoing prospective study in a level 1 Emergency Department (ED). Women are at increased odds to develop a diagnosis of PTSD at 1-month [n=241; p<0.001; OR(95%CI)=2.80(1.61, 5.02)], 3-months [n=202; p=0.031; OR(95%CI)=2.20(1.08, 4.51)] and 6-months following trauma exposure [n=164; p=0.049; OR(95%CI)=2.22(1.00, 4.92)]. PTSD symptoms are significantly greater in women compared to men at all these three time points post-trauma (all p<0.01). We will discuss potential underlying mechanisms for this sex difference, focusing on the role of estradiol and glucocorticoids on psychophysiology, as well as the role of nausea in increasing risk for PTSD in the aftermath of trauma. Overall, our data suggest that women are more at risk for developing PTSD following trauma exposure. Future studies are necessary to further characterize biological mechanisms underlying this sex difference in the development of PTSD following trauma exposure.

Sex Differences in the Reinstatement of Fear: High Estradiol as a Protective Factor
(Bio Med, Bio Med-Bio/Int-Gender, Adult, M, Industrialized)
Felmingham, Kim, PhD; Zuj, Daniel, PhD Candidate; Nicholson, Emma, BSc Hons Psychology; Chia Ming Hsu, Ken, MPsych
University of Tasmania, Hobart, Tasmania, Australia

Increasing research is examining biological mechanisms underlying the female vulnerability for developing Posttraumatic Stress Disorder (PTSD), with recent evidence implicating low levels of estradiol in impaired fear extinction recall. Very few studies have examined the reinstatement of fear, which reflects increased fear responses following re-exposure to a stressor. Examining sex differences in fear reinstatement is highly relevant to identify potential processes in both the development and potential relapse of PTSD. 58 trauma-exposed individuals (28 men, 30 women (13 in a high estradiol group, 17 in low estradiol group) underwent a fear reinstatement protocol within a differential fear conditioning and extinction task using skin conductance responses as an index of fear response. A significant Group x Trial (pre-post reinstatement) interaction revealed that both low estradiol females and males displayed significant increases in SCR following reinstatement, but females with high estradiol did not display a significant reinstatement effect. These reinstatement effects were observed to both the CS+ and CS-, suggesting a generalized fear response. This finding provides further evidence of a protective effect of high levels of estradiol, and reinforces low levels of estradiol as a risk factor for relapse of fear with ongoing exposure to stressors in PTSD.

Gender Difference in Outcomes following Trauma-focused Interventions for Posttraumatic Stress Disorder: Systematic Review and Meta-analysis
(Clin Res, Gender, Adult, M, Industrialized)
Wade, Darryl, PhD1; Varker, Tracey, PhD1; Kartul, Dzenana, PhD Candidate1; Hetrick, Sarah, PhD2; O'Donnell, Meaghan, PhD2; Forbes, David, PhD1
1Phoenix Australia: Centre for Posttraumatic Mental Health: The University of Melbourne, Carlton, Victoria, Australia
2Orygen Youth Health Research Centre, Parkville, Victoria, Australia

A recent systematic review and meta-analysis conducted by our group found support for a gender difference in outcomes following trauma-focused psychological interventions for PTSD (Wade et al. (in press) Gender difference in outcomes following trauma-focused interventions for posttraumatic stress disorder: Systematic review and...
Sex Differences in the Enzyme Site at which GABAergic Neuroactive Steroid Synthesis is Blocked in PTSD: Implications for Targeting of PTSD Therapeutics

Rasmussen, Ann, MD; King, Matthew, PhD; Gregor, Kristin, PhD; Sciolis-Salter, Erica, PhD; Pineles, Suzanne, PhD; Valovski, Ivan, MD; Hamouda, Mohamed, MD; Pinna, Graziano, PhD

1 National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA
2 VA Boston Healthcare System, Boston, Massachusetts, USA
3 National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
4 VA, Boston, Massachusetts, USA
5 University of Illinois Chicago, Chicago, Illinois, USA

In women with PTSD, low cerebrospinal fluid (CSF) levels of the potent inhibitory GABAergic neuroactive steroids, allopregnanolone & pregnanolone (ALLO), are strongly correlated with PTSD re-experiencing and negative mood symptoms, and appear to be due to a block in conversion of 5α-dihydroprogesterone (5α-DHP) to ALLO by the p450 enzyme 3α-hydroxysteroid dehydrogenase (3α-HSD). 3α-HSD is normally upregulated by cortisol and testosterone, and favors ALLO synthesis during oxidative stress as the 3α-HSD co-factor, NADPH, accumulates. Binge alcohol consumption in male rodents produces a similar block at 3α-HSD, likely by decreasing NADPH, while SSRIs apparently increase 3α-HSD function. In contrast, a CSF and plasma study in males with PTSD revealed a block in ALLO synthesis at 5α-reductase (which converts progesterone to 5α-DHP) in association with depression, hyperarousal and nightmares (ps<0.015). Of note, 5α-reductase gene expression decreases during social isolation in male (not female) rodents, resulting in increased anxiety, aggression, and contextual fear conditioning; a 5α-reductase gene polymorphism confers PTSD risk in men (not women); and 5α-reductase dysfunction is associated with poor Prolonged Exposure efficacy. Together these findings support use of precision medicine to target sex-specific dysfunction of the ALLO synthesis pathway in the treatment of PTSD.

Implementing and Evaluating Exposure-Based Group Treatments with Trauma Survivors

Karlsson, Marie, PhD
Murray State University, Murray, Kentucky, USA

Although trauma treatment outcome studies have generally found larger effect sizes for individual treatments (Sloan, et al., 2013), group therapy is often a more feasible treatment option for systems to implement. Moreover, group treatments might offer important benefits, such as forming social connections, increasing trust, and normalizing symptoms and experiences (Mott et al., 2013; Sloan, Bovin, & Schnurr, 2012), that are less common foci of outcome research but highly relevant for trauma survivors. This symposium will describe two different group treatment models implemented with female trauma survivors. The first two presentations focus on an exposure-based group treatment with
incarcerated women which targets issues related to sexual victimization. Presenter one will describe follow-up data from this group. Presenter two will discuss lessons learned and practical considerations for mental health professionals interested in providing group trauma treatments to incarcerated women. The second two presentations focus on a prolonged exposure group with female veterans diagnosed with PTSD. The third presenter will describe outcome data from this group and the last presenter will focus on describing the treatment model. Implications and specific suggestions regarding trauma-focused group treatments will be discussed.

**Follow-Up Data from a Brief Exposure-Based Group Treatment with Incarcerated Women**
(Clin Res, Rape, Adult, M, Industrialized)

*Karlsson, Marie, PhD*\(^1\); Zielinski, Melissa, MA PhD Student\(^2\); Calvert, Maegan, MS, PhD Student\(^3\); Bridges, Ana, PhD\(^3\)

\(^1\)Murray State University, Murray, Kentucky, USA
\(^2\)University of Arkansas for Medical Sciences, Little Rock, Arkansas, USA
\(^3\)University of Arkansas, Fayetteville, Fayetteville, Arkansas, USA

Many incarcerated women could benefit from receiving trauma-focused treatment due to high rates of interpersonal trauma and related symptoms. This presentation describes follow-up data from incarcerated women who completed an 8-week exposure-based group treatment. Previous research showed statistically and clinically significant symptom reductions from pre-to post-treatment for thirteen groups (n = 14; Karlsson et al., 2014; n = 52; Karlsson et al., 2015). In the current analyses, women with follow-up data (n = 26) had higher generalized anxiety and PTSD scores at post-treatment than treatment completers without follow-up data (n = 78; ps < .05). A series of one-way repeated measures ANOVAs showed significant effect of time for reduction in PTSD, depressive, and generalized anxiety symptoms (ps < .001; large effect sizes). Bonferroni pairwise comparisons supported that treatment effects were either maintained or further reduced during the follow-up period. Moreover, at pre-treatment 81% were above the clinical cutoff on one or more of the symptom measures, which was reduced to 62% at post-treatment and 27% at follow-up. Sixty-nine percent of group participants (n = 18) reported clinically significant reduction in symptoms as measured by the reliable change index (Jacobson & Truax, 1991). Implications will be discussed.

**Practical Considerations in Adapting Evidence-Based Trauma Treatment for Incarcerated Women**
(Clin Res, Clin Res-Rape-Gender, Adult, M, Industrialized)

Zielinski, Melissa, MA PhD Student\(^1\); Karlsson, Marie, PhD\(^2\); Bridges, Ana, PhD\(^3\)

\(^1\)University of Arkansas for Medical Sciences, Little Rock, Arkansas, USA
\(^2\)Murray State University, Murray, Kentucky, USA
\(^3\)University of Arkansas, Fayetteville, Fayetteville, Arkansas, USA

Incarcerated women have a constitutional right to receive mental health treatment, yet remain underserved. The high rates of traumatic event exposure, and especially sexual abuse and assault, make provision of trauma-informed services especially important for this population (Karlsson & Zielinski, 2016). Our hope is that more providers will pursue opportunities to serve this marginalized population; however, providing trauma treatment in a correctional setting also warrants special consideration. The purpose of this paper is thus to discuss practical considerations for mental health professionals interested in providing trauma treatments to incarcerated women, and to provide an illustrative model of how our group has adapted an evidenced-based trauma treatment for implementation in a community corrections center. The considerations reviewed will include: (1) Population and Facility Characteristics, (2) Prison Rules and Regulations, (3) Treatment model, (4) Recruitment, (5) Lack of Freedom, (6) Establishing Trust, Safety, and Autonomy/Power, (7) Concurrent Programming, and (8) Therapist Training. Illustrative applications of each consideration will be discussed using examples from the group treatment for sexual violence victimization developed by our research team (e.g., Karlsson, Bridges, Bell, & Petretic, 2014; Karlsson, Zielinski, & Bridges, 2015).

**Group-Delivered Exposure Therapy: Empirical Support for from Two Studies on Female Veterans with PTSD**
(Clin Res, Mil/Vets-Gender, Adult, M, Industrialized)
Prolonged Exposure (PE) therapy delivered individually is considered the standard of care for PTSD treatment. Group treatment for PTSD has historically been popular in the VA; group is especially popular now with long wait times for Evidence Based Psychotherapies. Group however, has little support in the literature (Sloan, et al., 2011). Exposure in group faces the logistic challenge of weekly in-vivo imaginal exposure for every member, not possible in a typical 8-member group. The problem is addressed by a unique 3-member group (Castillo, 2004) and support found in two separate studies. Methods/Results: In a clinical setting (n=88 individuals; n= 32 groups), significant decreases were found on the PCL (p<.01) in a 6-session group in female Veterans. In a 16-week Randomized Controlled group Trial (n=84 individuals; n=14 groups), with a 5-session exposure module (others were cognitive and behavioral), both overall PTSD improved on the CAPS (p<.001) and PCL significantly decreased in the exposure (p=.002) and cognitive (p=.03) modules in OEF/OIF female Veterans. Both exposure and cognitive modules were superior to the behavioral module. Conclusions: The two studies demonstrate safety and efficacy of delivering exposure therapy in a group format. Clinical implications suggest efficiency of treatment delivery and additional curative factors found in group.

A Model for Group-Delivered Exposure Therapy
(Clin Res, Complex, Adult, M, N/A)

C’dé Baca, Janet, PhD
New Mexico VA Healthcare System, Albuquerque, New Mexico, USA

The efficacy of exposure therapy for PTSD is well established when delivered in an individual format. We present testing the clinical application of this efficacious therapy delivered in a group format. Closely following Foa, Hembree, & Rothbaum’s (2007) PE protocol, exposure is provided to 3 veterans over 10, 90-minute group sessions and includes both in-vivo exposure and 7 in-session imaginal exposures (sessions 4-10). The first 3 sessions cover the rationale, common reactions and developing and teaching the in-vivo hierarchy. At end of session 3, the targeted trauma will be selected and veterans will be skilled at selecting and executing in-vivo homework with minimal direction, and subsequently there will be only a brief review of the in-vivo homework. Imaginal exposure for each veteran is 20 minutes to verbalize the trauma narrative one time, with anxiety levels are monitored and prompting as needed, followed by 5 minutes of processing. Each trauma narrative is recorded separately by the facilitator for each group member, either on the veteran’s smart phone or a digital recorder. Homework is recorded on tracking forms and consists of listening to the trauma narrative daily and completing the selected in-vivo exposure tasks. Careful tracking of time by facilitator is required.

Symposium
Thursday, November 10
10:15 AM to 11:30 AM
Dallas D3

ICD-11 Symposium I: An Update of the Development of the ICD-11 Classification of Disorders Specifically Associated with Stress
(Assess Dx, Global-Pub Health, N/A, M, Global)

Maercker, Andreas, PhD, MD
University of Zurich, Zurich, Switzerland

This will be the first in a series of symposia intended to provide a progress report on the Working Group for “Disorders specifically associated with stress” at World Health Organization (WHO). The symposium will include four presentations. The first will describe WHO’s next plans for the ICD revision-related field studies in around the world. The second will give an overview on the distinguishability of PTSD and Complex PTSD. The third will summarize recent major findings on PTSD and Complex PTSD. And the fourth will discuss highlights from research on Prolonged Grief Disorder and Adjustment Disorder. Strategies and key results will be presented that advance ICD-11’s goal of improving the clinical utility through a global and multidisciplinary development and data collection process, emphasizing the participation of low- and middle-

Ecological Implementation Studies for ICD-11 Disorders Specifically Associated with Stress: A Preview
(Assess Dx, Clinical Practice-Cul Div-GLOBAL-Res Meth, Lifespan, M, Global)

Keeley, Jared, PhD
Mississippi State University, Mississippi State, Mississippi, USA

This session will review the plan for the next wave of field testing for the ICD-11 Disorders Specifically Associated with Stress. Following feedback and changes from the case-controlled, internet-based field studies, the diagnostic guidelines will next be tested in a set of clinic-based field trials. These Ecological Implementation studies have two branches. One set of studies will examine the interrater reliability of core diagnostic areas, including Disorders Specifically Associated with Stress. The second will address aspects of clinical utility, including how well the guidelines capture actual patient presentations and how easy they were to use, for sites that are not able to complete the reliability study. This session will review where these studies will be conducted and how the results will inform the final version of the ICD-11 to be presented to the World Health Assembly in 2018.

An Overview of the Emerging Evidence on PTSD in ICD-11
(Assess Dx, Clinical Practice-Pub Health, Adult, M, Industrialized)

Brewin, Chris, PhD
University College London, London, United Kingdom

ICD-11 proposes that the PTSD diagnosis can be defined in terms of the combination of three core elements, re-experiencing the traumatic event in the present, deliberate avoidance of reminders, and a persisting sense of threat. Each of these three elements is represented by a minimum of 2 symptoms, resulting in a much more restricted and specific symptom set. In contrast to DSM-5 there is an explicit focus on symptoms that best discriminate PTSD from other disorders with which it is commonly comorbid, based on the results of factor analyses as well as patient and clinician surveys. There is now a growing body of research that seeks to evaluate these proposals. In this presentation I will summarize the picture that is emerging concerning the likely impact on prevalence rates, the diagnostic overlap with DSM-5, the factor structure of the ICD-11 symptom set, comorbidity rates, and the degree of impairment associated with the ICD-11 and DSM-5 diagnoses.

An Overview of Complex PTSD in ICD-11: Measurement and Evidence
(Assess Dx, Chronic-Complex-GLOBAL-Social, Adult, M, N/A)

Cloitre, Marylene, PhD
National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA

This presentation will provide an update on the development of the ICD-11 PTSD and CPTSD interview and self-report measures. Data will be presented on factor analyses supporting the organization of ICD-11 sibling diagnoses of PTSD and CPTSD as well as an overview of recent analyses identifying distinct groups of individuals with PTSD and CPTSD in refugee, community and clinical samples.

Investigating the ICD-11 formulations for Prolonged Grief Disorder and Adjustment Disorder
(Assess Dx, Pub Health, Adult, M, Global)

Maercker, Andreas, PhD, MD
University of Zurich, Zurich, Switzerland

In the ICD-11 besides PTSD and CPTSD, Prolonged Grief Disorder (PGD) and Adjustment Disorder (AD) will be introduced as separate disorders and with new diagnostic formulations. ICD-11 PGD is defined by the core symptoms of yearning/longing for the deceased and preoccupations with the deceased or the death and in addition few accessory symptoms of...
anger, feeling one has lost a part of one’s self, difficulties accepting the death and in engaging with social or other activities. AD is defined by identifiable stressor(s) or life change(s) and core symptoms of preoccupation related to the stressor like excessive worry, recurrent and distressing rumination about the stressor. In addition, failure to adapt symptoms interfering with everyday functioning, like difficulties concentrating or sleep disturbance resulting in performance problems at work or at school are present. Less than for PTSD and CPTSD, but around 3 studies for each condition have been conducted around the world and will be presented in summary.

Symposium
Thursday, November 10
10:15 AM to 11:30 AM
San Antonio Ballroom B

Strengthening at the Roots: Violence Prevention and Mental Health Intervention in the Context of Ongoing Political Conflict
(Global, Aggress-Commun-Comm/Int-Cul Div, Lifespan, I, M East & N Africa)

D’Andrea, Wendy, PhD
New School for Social Research, New York, New York, USA

This symposium will address the topic of violence prevention in international settings with ongoing conflict, such as Gaza, Lebanon, and Northern Ireland. We will explore antecedents to violence, including psychological stress, violation of sacred values, and fragmented social support systems. The group will then explore means to interrupt cycles of ongoing violence. Sheikh will present field work from multiple high-conflict international settings and address the topic of why people believe they are willing to fight. Bergholz will present on the development of a trauma-informed, play-based, attachment-focused interventions for youth in group settings in the Middle East, with qualitative description of the impact of the intervention. D’Andrea will present outcomes data from a large-scale intervention with youth in Gaza designed to reduce violence by reducing social isolation and stress.

Fostering Healing in Communities Where Everyone Hurts
(Commun, Chronic-Commun-Comm/Vio-Civil/War, Child/Adol, I, M East & N Africa)

Bergholz, Lou, BS
Edgework Consulting, Boston, Massachusetts, USA

This presentation focuses on a trauma-informed intervention designed for youth in international community settings. The intervention utilized a methodology which prioritized a hyper-emphasis on attachment and vital connections between lay-staff and participants and the incorporating of essential elements of local culture into the program design. The intervention is implemented completely by local staff, trained in a set of approaches that equipped them to foster a uniquely safe, nurturing and healing environment in communities and an entire society wrecked by violence and trauma. In regions where people have very little access to formal clinical care, this project succeeded in dramatically reducing clinical symptom indicators; emerging qualitative themes of the program centered on building physical and emotional safety, reducing isolation, and providing tools for affect regulation. Intervention frameworks and tools will be shared to highlight some of the most practical and useful lessons and tools generated from this project.

Why They Fight: Evidence from the Field
(Social, Terror-Mil/Vets, Lifespan, I, Global)

Sheikh, Hammad, PhD
New School for Social Research, New York, New York, USA

To effectively prevent intergroup violence, it is crucial to understand why people are willing to fight and die for a cause or their group? To gain valid insights into this question, one needs to engage with people who are either involved in intergroup violence or have a realistic prospect of it. I present field studies (interviews and surveys) with populations in the Middle East (Lebanese, Moroccans, Kurds) and with Western populations (Spanish, Northern Irish: surveys and experiments). The results suggest that people fight to protect non-negotiable sacred values (e.g., Sharia law) when such values are associated with the group those individuals most care about (e.g., close friends). In one study, we surveyed 260 Moroccans and conducted a follow up online experiment with a representative sample (N = 644) of
Spaniards. Moroccans expressed willingness to make costly sacrifices for the implementation of Sharia, when their personal identity was fused with their close friends, and when they considered Sharia law as sacred (interaction, F(1, 126) = 5.80, p = .017). Similarly, Spaniards who were fused with their close friends and considered democracy as sacred, were most willing to make costly sacrifices for democracy, after being reminded of jihadi terrorism (interaction, F(1, 636) = 11.00, p < .001). I will discuss the implications of these insights for violence prevention.

**Eye to the Future: Reducing Aggression and Stress and Building Resilience Using a Community Psychosocial Approach with Children Living in Gaza**

(CulDiv, Aggress-Complex-Civil/War, Child/Adol, I, M East & N Africa)

D’Andrea, Wendy, PhD¹; Bergholz, Lou, BS²; Freed, Steven, MA PhD Student¹; Aboagye, Adjoa, PhD¹

¹New School for Social Research, New York, New York, USA
²Edgework Consulting, Boston, Massachusetts, USA

Despite the chronic devastation experienced within the Gaza strip, very few studies have examined the impact of the ongoing trauma on children, or how to remediate its effects. Beginning in 2009, a large-scale community-based intervention was introduced to help build more peaceful attitudes and behavior among youth. This intervention had the goals of increasing emotional identification and conflict resolution skills by building physical and emotional safety through a lay-staff-administered, attachment-based camp. Here, we present a) baseline mental health data using standardized measures, from multiple reporters, among 2200 children ages 9-13, and b) sustained changes in mental health associated with the intervention, compared to waitlist controls. Over 60% of youth were within the clinical range for mental health symptoms at the outset, whereas 10% were in the clinical range at program completion. Changes were statistically and clinically significant. This program represents an impactful and feasible approach for community-based trauma-informed psychosocial interventions.

**Symposium**

**Thursday, November 10**

**10:15 AM to 11:30 AM**

**Houston Ballroom A**

**Public Health and Individual Impact of Different Screening Procedures to Assess Risk for PTSD following Traumatic Injury**

(Prevent, Acc/Inj, Adult, M, Industrialized)

deRoon-Cassini, Terri, PhD¹; O’Donnell, Meaghan, PhD²

¹Medical College of Wisconsin, Milwaukee, Wisconsin, USA
²Phoenix Australia: Centre for Posttraumatic Mental Health: The University of Melbourne, Carlton, Victoria, Australia

Approximately 12 million individuals experience traumatic injury annually, with over 2 million requiring hospitalization. A full spectrum of screening procedures exist to detect risk for posttraumatic stress disorder (PTSD). These procedures range from biomarkers to self-report measures to automated Electronic Health Record (EHR) screens. Each method has advantages and disadvantages with regard to diagnostic accuracy versus breadth of applicability. These four presentations will review different screening procedures while weighing resource intensiveness versus breadth of applicability, including public health and individual reach.

**Effective Strategies for Predicting Prospective Risk for PTSD Symptom Development in the Aftermath of Trauma**

(Assess Dx, Acc/Inj-Prevent, Adult, M, N/A)

Rothbaum, Barbara, PhD, ABPP¹; Michopoulos, Vasiliki, PhD, MSc¹; Post, Loren, PhD¹; Fiorillo, Devika, PhD¹; Roffman, Rebecca, MA¹; Rothbaum, Alex, BS²; Maples, Jessica, MS, PhD Student³; Jovanovic, Tanja, PhD¹; Ressler, Kerry, MD PhD¹

¹Emory University School of Medicine, Atlanta, Georgia, USA
²Case Western Reserve University, Cleveland, Ohio, USA
³University of Georgia, Athens, Georgia, USA
Identifying trauma survivors at increased risk for development of PTSD is critical for early intervention and prevention of PTSD in the acute aftermath of trauma. Herein we discuss and compare three methods of assessing prospective risk for PTSD symptom development: 1) the five-question “Predicting PTSD Questionnaire” (PPQ), 2) the Immediate Stress-Reaction Checklist (ISRC), and 3) skin conductance (SC) response during administration of a standard trauma interview using eSense (Mindfield, Inc) for iPad. All measures were collected in the Emergency Department immediately following trauma exposure and follow-up assessment conducted at 1- and 3-months post-trauma to capture PTSD symptom development. PPQ total score significantly predicted PTSD symptoms at 1- (r=0.213, p=0.005; n=171) and 3-months (r=0.268, p=0.001; n=150) post-trauma. ISRC total score also significantly predicted PTSD symptoms at 1- (r=0.533, p<0.001; n=152) and 3-months (r=0.471, p<0.001; n=132) post-trauma. Finally, peak SC response to trauma description in the immediate aftermath of trauma significantly predicted PTSD symptom severity at 1-month (r=0.751, p=0.001; n=15) and at 3-months (r=0.880, p<0.001 n=15) post-trauma. We will discuss future directions and the implications for using these risk assessments for identifying individuals for PTSD early intervention in the aftermath of trauma.

Enhancing the Population Impact of PTSD and Comorbidity Screening
(Clin Res, Acute-Assess Dx-Prevent-Pub Health, Adult, M, Industrialized)

Zatzick, Douglas, MD1; Ingraham, Leah, BS1; Guiney, Roxanne, BA1; Colosi, Patricia L., BS, BA1; Darnell, Doyanne, PhD1; Kompar, Christopher, BS1; Sandgren, Kirsten, MSW1; Love, Jeff, BA2; Wang, Jin, PhD3; Russo, Joan, PhD3
1University of Washington/ Harborview Medical Center, Seattle, Washington, USA
2University of Washington, Seattle, Washington, USA
3University of Washington School of Medicine, Seattle, Washington, USA

As a public health construct, population impact defines the overall impact of a PTSD intervention as a function of both treatment effects and intervention breadth of applicability (Koepsell, Zatzick, & Rivara, 2011). Similarly, the population impact of PTSD screening can be considered a function of optimal PTSD risk prediction and screening efficiency. In order to simultaneously optimize screening efficiency and PTSD risk prediction we developed an electronic health record (EHR) method of aggregating readily available hospital data to screen for high early PTSD symptom levels in survivors of traumatic physical injury. Ten readily identifiable EHR domains including gender, non-white ethnicity, ICU admission, injury type, prior hospitalization, prior PTSD diagnoses, other mental health diagnosis, substance use, tobacco use and insurance status were used to predict high early PTSD symptom levels on the PTSD Checklist (Russo, Katon, & Zatzick, 2013). Aggregation of inpatient data (N=878) yielded excellent PTSD risk prediction in logistic models: with a PTSD Checklist cutoff ≥35 and a predicted probability ≥0.20, the area under ROC curve = 0.72, Sensitivity = 0.71, and Specificity = 0.66). National efforts to disseminate EHR screening will be discussed with an emphasis on American College of Surgeons’ PTSD screening and intervention policy guideline development.

PTSD and Depression Screening with an In-Person 9-Item Measure for Hospitalized Trauma Survivors
(Prevent, Acc/Inj-Acute-Assess Dx, Adult, M, Industrialized)

deRoozen-Cassini, Terri, PhD1; Hunt, Josh, PhD1; Warren, Ann Marie, PhD2
1Medical College of Wisconsin, Milwaukee, Wisconsin, USA
2Baylor University Medical Center, Dallas, Texas, USA

Background: The American College of Surgeons Committee on Trauma has recommended PTSD and Depression screening for hospitalized trauma survivors. The purpose of this study was to evaluate the utility of a brief new screening tool for PTSD and Depression. Methods: 276 trauma patients admitted to two Level I trauma centers completed the newly created 9-item Injured Trauma Survivor Screen for PTSD and depression, as well as injury and demographic information. At 1 (n=137) and 6 (n=99) months posttrauma the CAPS for PTSD and the CESD-R for depression were administered. ROC curve analysis and sensitivity and specificity were utilized. Results: The rate of depression was 20% and the rate of PTSD was 28.7%. 55% were comorbid for...
PTSD and Depression. The new Injured Trauma Survivor Screen (ITSS) for PTSD and Depression demonstrated 75% sensitivity for identifying risk for PTSD and Depression, 94% specificity for PTSD and 96% specificity for depression, with a cut-off score of 2 out of 5 based on a ROC curve analysis.

Conclusions: The ITSS demonstrated strong sensitivity and specificity for predicting PTSD and Depression when administered at hospitalization following injury, takes less than 5 minutes to administer, and is a reliable option validated on a population it is intended to be used.

Use of Brief Screening Tools for Psychological Assessment Following Physical Injury: Strategies for Implementation during Acute Care
(Clin Res, Acc/Inj-Assess Dx, Adult, M, Industrialized)

Warren, Ann Marie, PhD
Baylor University Medical Center, Dallas, Texas, USA

The American College of Surgeons Committee on Trauma has increasingly recognized psychological consequences for those who sustain a physical injury. In the most recent version of the Resources for the Optimal Guide of the Injured Patient (2014) they conclude early screening for posttraumatic stress disorder and depression after injury has the potential to improve functional outcome. However, trauma centers may be reluctant to engage in psychological screening due to concerns regarding time or available mental health expertise. This presentation will focus on a review of self-report screening measures that can be used in acute care to assess for common psychological response post injury including posttraumatic stress symptoms and co-morbid depression. Additionally, practical strategies will be discussed to enhance successful screening efforts using these tools in an acute care environment, including the intensive care unit. Barriers and challenges to screening in the acute care environment will also be reviewed. Discussion will include recommendations for future research in the use of screening tools in the challenging acute care setting.

Symposium
Thursday, November 10
10:15 AM to 11:30 AM
Houston Ballroom B

Emerging Network for Post-disaster Psychosocial Support in Asia
(CulDiv, Acc/Inj-Comm/Int-Ethnic-Nat/Dis, Prof, M, Global)

Kim, Yoshiharu, MD, PhD
National Institute of Mental Health, National Center of Neurology and Psychiatry, Kodaira, Tokyo, Japan

East Asia is a hot spot of natural disasters where typhoons, floods, earthquakes and epidemic of lethal infectious diseases occur almost every year. The affected countries often lack sufficient health resources or adequate information and the harm of disasters may spread beyond country borders so that the international collaboration is necessary. We started the effective network of civilian education of psychological first aid in collaboration with West Pacific Regional Office of WHO, to which board members of ISTSS participate. Industrialized East Asian countries on the contrary have new risk for man-made disasters. Fukushima atomic power plant accident in Japan, which evacuated nearly 160,000 citizens, and Sewol Ferry boat accident, which deprived the life of nearly 300 high school students, caused unpredictable impact upon society, sharing the common background that the accident occurred despite the advancement of technology. ISTSS collaborated with Japanese and Korean STSSs to overcome the psychological impact of these events; in 2015 it held a mid-year board meeting with Japanese STSS and sent board members to the launch conference of Korean STSS. It is hoped that the framework of STSS would unite the local efforts of psychosocial countermeasures to various types of disasters in East Asia and promote resources and literacy for psychological trauma.

Trauma and/or Embitterment of the Bereaved Parents of Adolescent Victims by Sewol Ferry Disaster
(Assess Dx, Acc/Inj-Death-Tech/Dis-Grief, Adult, M, E Asia & Pac)

Chae, Jeong-Ho, MD PhD; Huh, Hyu Jung, MD; Huh, Seung, MD
**The Catholic University of Korea, Seoul, Korea, South**

By Sewol ferry sinking accident, 250 sophomore students who were on a field trip of a high school died. The aim of this presentation is to estimate the prevalence of mental health problems of the bereaved parents of the Sewol ferry accident after 18 months and to examine the association between demographics, trauma related indicators and mental health profiles. Eighty-four bereaved parents were participated in the study. Self reported scales for assessing the severity of depression, post traumatic stress symptoms and complicated grief and other mental health problems were used. Ninety four percent of the participants were appeared to be suffered from complicated grief. Half of them were categorized into severe depression and 70.2% reported clinically significant posttraumatic symptoms and 67.1% participants showed clinically significant symptoms of posttraumatic embitterment disorder (PTED). In conclusion, the loss of child due to human-caused large scale disaster may have a substantial impact in parental mental health at 18 month after disaster. The appropriate evaluation about individual resilience, effective interventions for enhancing individual coping strategy and optimism could be helpful to relieve embitterment in these subjects.

**Fukushima, Mental Health and Suicide**
(Pub Health, Acc/Inj-Assess Dx-Health-Tech/Dis, Lifespan, M, Industrialized)

Maeda, Masaharu, MD PhD1; Oe, Misari, MD PhD2; Bromet, Evelyn, PhD3; Yasumura, Seiji, MD PhD4; Ohto, Hitoshi, MD, PhD5

1Fukushima Medical University, Fukushima, Japan
2Kurume University, Kurume, Fukuoka, Japan
3Stony Brook University, Stony Brook, New York, USA

In 2011, the Great East Japan Earthquake struck Japan. In particular, Fukushima Prefecture was heavily affected by the quake, the subsequent tsunami, and the resulting severe nuclear power plant accident. Since the disaster occurred, the residents of Fukushima Prefecture have been suffering from various mental health problems, such as PTSD and depression. The Fukushima Medical University has been conducting a major mental health survey using several questionnaires for approximately 200,000 people living in the evacuation area in Fukushima every year. As a result, the proportion of adult respondents with a risk of depression or anxiety disorders was 14.6% in 20112 and 11.9% in 2013, which are much higher than the proportion of roughly 3% in other parts of Japan. Furthermore, there is a marked increase in the standardized suicide mortality rate among residents of Fukushima Prefecture following a drop during the first 2 years after the disaster. These data indicate that the long-term psychological effects is still critical and we should establish more efficient care network in addition to enhancing existing resources.

**How We Can Strengthen Traumatic Stress Studies in Asia**
(Train/Ed/Dis, Nat/Dis, Health Professionals, M, S Asia)

Tsutsumi, Atsuro, PhD1; Izustu, Takashi, PhD2; Kim, Yoshiharu, MD, PhD3
1United Nations University International Institute for Global Health, Kuala Lumpur, Cheras, Malaysia
2University of Tokyo, Meguro, Tokyo, Japan
3National Institute of Mental Health, National Center of Neurology and Psychiatry, Kodaira, Tokyo, Japan

For Past 30 years in the world, about 40% of the disasters had happened in Asia. In addition, 90% of survivors and 50% of the death were in Asia. However, human and financial resources are constrained in Asia: 50% of the Asian countries have no mental health policy which caused that many of the countries in Asia have less than 1% for mental health budget in total health budgets in countries. Further, in 2015, an important global framework, United Nations Sendai Framework for Disaster Risk Reduction was adopted with including mental health as new global priorities. This will accelerate efforts to address gaps and needs in establishing a new network on traumatic stress studies in Asia and ISTSS will have a great role to achieve it. In this regard, the research team, funded by the Japanese government, works on development of e-learning module on mental health in emergencies for sharing lessons learned and good practices in countries to support each other and strengthen traumatic stress studies in Asia, and develop policy and programmes. The team also develops the content and will conduct effectiveness of the module, in collaboration with outstanding experts as well as international organizations. The presentation will share the research outcomes and discuss how we can strengthen traumatic stress studies in Asia.
Trauma and Panic Response Facing MERS (Middle East Respiratory Syndrome) in Korea
(Prevent, Acute-Anx-Pub Health-Tech/Dis, Adult, M, Global)

Lee, So Hee, MD, PhD
National Medical Center, Seoul, Korea, South Korea

Korea was hit by a community-wide outbreak of MERS, a highly lethal respiratory disease in 2015. Twenty-five out of forty patients admitted at the National Medical Center were referred to Consultation and Liaison Psychiatry Team. They showed various symptoms such as panic, anger, paranoid, insomnia and suicidality. Eighty-seven health care workers (50.1%) experienced mild to severe depression. Thirty-one of these participants (18.1%) were suspected to have acute stress reaction. Depression was higher among workers who were single, living alone, caring for MERS patients, or suffering from physical illnesses and among those who reported pre-MERS traumatic experiences. Members of the Korean Medical Association were invited to complete a questionnaire immediately after the resolution of the MERS outbreak. Symptoms of depression and PTS were higher among respondents who were from MERS-affected hospitals than among those who were not. However, direct involvement with patient care was not significantly related to the severity of mental health consequences. The outbreak of MERS could be regarded as an acute episode of a disaster, leading to a significantly high rate of psychiatric morbidity. Psychiatric evaluation and intervention was necessary to help the patients in isolation unit. Many doctors were emotionally affected and traumatized during the MERS outbreak.

Panel Presentation
Thursday, November 10
10:15 AM to 11:30 AM
San Antonio Ballroom A

The Concept and Role of the Therapeutic Relationship across Trauma Therapies: A Conversation among PE, CPT, EMDR, and Body Therapy Experts

Kudler, Harold, MD¹; Frankfurt, Sheila, PhD²; Resick, Patricia, PhD, ABPP³; van der Kolk, Bessel, MD⁴; Rauch, Sheila, PhD, ABPP⁵; Rouanzoin, Curtis, PhD⁶
¹USA Department of Veterans Affairs, Washington, District of Columbia, USA
²VISN 17 Center of Excellence for Research on Returning War Veterans, Waco, Texas, USA
³Duke University Medical Center, Durham, North Carolina, USA
⁴Trauma Center at Justice Resource Institute, Brookline, Massachusetts, USA
⁵Emory University School of Medicine/Atlanta Veteran’s Administration, Atlanta, Georgia, USA
⁶Curtis C. Rouanzoin, Ph.D. & Associates, Irvine, California, USA

Psychotherapy research shows that the strength of the therapeutic relationship is an important predictor of clinical outcomes. Trauma-focused psychotherapy in particular requires careful attention to core elements of the therapeutic relationship because of powerful and often contradictory emotions and experiences which characterize this work. These may include fear, rage, hopelessness and confusion as well as empathy, hopefulness and deep intimacy. The therapist must stand ready to recognize and, if needed, repair ruptures in the therapeutic relationship because disturbances in relationships and deficits in interpersonal trust are common sequelae of psychological trauma. This panel brings together leading clinician/researchers from across a broad range of therapies (Body Therapy, Cognitive Processing Therapy, Eye Movement Desensitization and Reprocessing, and Prolonged Exposure Therapy) to describe how each conceptualizes and works in the therapeutic relationship in the context of their respective models. Clinical experience and research findings will be brought to bear. Discussion will be led by the Co-Chair of the ISTSS Special Interest Group on Psychodynamic Research and Practice and will be followed by open exchange among the panelists and with audience members to stimulate a unique conversation about a key concern within psychotherapy that crosses all theoretical lines.
CONCURRENT SESSION TWO

Invited Panel
Thursday, November 10
1:15 PM to 2:30 PM
Dallas B/C

The Refugee Situation in the World: a Humanitarian Emergency
(Global, Health-Refugee-Social-Civil/War, N/A, I, Global)

Michael, Tanja, PhD1; Essali, Adib, MD2; Young, Kerry, PhD3; Lindert, Jutta, PhD, MPH, MA4; Liddell, Belinda, PhD5; van Ommeren, Mark, PhD6

1Saarland University, Saarbruecken, Saarland, Germany
2Waikato District Health Board, Thames, Auckland, New Zealand
3Central and North West London NHS Foundation Trust, London, England, United Kingdom
4University of Emden, Emden, Niedersachsen, Germany
5University of New South Wales, Sydney, New South Wales, Australia
6World Health Organization, Geneva, Switzerland

Although providing refuge to people fleeing persecution, war or hunger is considered the hallmark of civilization, many high income countries shy away from their humanitarian responsibilities. Refugees – already exposed to danger in their home country – face often perilous situations during their flight and meet difficult living conditions in their country of arrival. In the panel, five distinguished scholar-clinicians will exchange views on which mental health and psychosocial support measures are most needed and how to build structures to provide them: Dr. Adib Essali (Waikato District Health Board, NZ) has profound knowledge on the psychological consequences of the violence in Syria and the Middle East; Dr. Kerry Young (Forced Migration Trauma Service, UK) is an expert on treatment approaches for refugees; Dr. Jutta Lindert (Professor of Public Health, DE) is a former head of a refugee camp and expert on the impact of violence on mental health; Dr. Belinda Liddell (Refugee Trauma and Recovery Program, UNSW Australia) has worked with a variety of refugee and post-conflict populations; Dr. Mark van Ommeren (Public Mental Health Adviser at WHO) functions as global focal point for mental health and psychosocial support in emergencies as well as for interventions for trauma and loss. Dr. Tanja Michael will be moderating this session.

Symposium
Thursday, November 10
1:15 PM to 2:30 PM
Dallas A1

Sudden and Violent Deaths: Implications for Improved Public Health Response
(Pub Health, Assess Dx-Clin Res-Pub Health-Grief, Adult, M, Industrialized)

Cozza, Stephen, MD1; Shear, M Katherine, MD2

1Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA
2Columbia University School of Social Work, New York, New York, USA

Bereavement studies show that sudden and violent deaths are associated with elevated rates of long-lasting, high intensity grief (Kristensen et al. 2012). This syndrome has been referred to as complicated grief and, more recently proposed as a diagnosis in DSM-5: persistent complex bereavement disorder. Four presenters discuss findings of epidemiological and clinical research trials focusing on manifestations of persistent grief in adults bereaved by sudden and violent causes (i.e., combat deaths, terrorism deaths, accidental deaths, suicide and homicide). Results indicate that public health and clinical practice could be improved in several ways: 1) by targeting risk and protective factors associated with varying bereavement outcomes; 2) by using data-derived diagnostic criteria that accurately identify those with clinically impairing grief; and 3) by employing evidence based interventions (i.e. Complicated Grief Therapy) shown to result in positive treatment response in those bereft from sudden and violent causes.
Military Family Members Bereaved by Sudden and Violent Death: Differentiating Grief-, Depression- and Trauma-related Symptom Clusters
(Pub Health, Death-Pub Health-Grief-Civil/War, Adult, M, Industrialized)

Cozza, Stephen, MD; Fisher, Joscelyn, PhD; Zhou, Jing, MS; Fullerton, Carol, PhD; Ursano, Robert, MD
Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA

Sudden and violent deaths have been associated with high intensity grief that can be differentiated from depression as well as traumatic responses. In order to examine whether distinct grief, depression and trauma-related symptom clusters exist in a sample of 725 bereaved military family members all of whose service members died from sudden and violent deaths, exploratory and confirmatory factor analyses were conducted using items from the ICG, PHQ and PCL-C. Six distinct factors were identified that represented three grief- (yearning/longing, stunned disbelief, and anger/bitterness), one depression-, and two trauma- (re-experiencing and avoidance/numbing) related symptom clusters. Associations between various predictors (e.g. cause of death) and these factors were identified. For example, suicide deaths were less likely to result in yearning/longing when compared to accidents or combat deaths. Avoidance/numbing, depression, and yearning/longing were associated with clinical impairment, but re-experiencing, stunned disbelief and anger/bitterness were not. These findings suggest that populations bereaved by sudden and violent deaths develop a range of symptoms that discretely cluster, are independently associated with predictors, and variably impact functional outcomes. These findings suggest the need for nuanced assessment and tailored intervention.

Terrorism-Related Grief Reactions Fifteen Years after 9-11: Public Health Implications
(Assess Dx, Death-Terror-Grief, Adult, M, Industrialized)

Fisher, Joscelyn, PhD; Fetchet, Mary, LCSW; Zhou, Jing, MS; Dinh, Hieu, BS; Cozza, Stephen, MD

1Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA
2VOICES of September 11, New Canaan, Connecticut, USA
3Uniformed Services University, Bethesda, Maryland, USA

Bereavement research on sudden, violent deaths often focuses on immediate or short-term effects, rather than long-term effects. To determine long-term outcomes of individuals who lost a loved one on 9-11, 603 family members were recruited to complete an online survey. The questionnaire assessed background factors, characteristics of the death, availability of resources, media involvement, memorialization, psychological functioning, and life events. To determine symptom profiles of individuals, latent class analysis was conducted. The analysis yielded three groups: healthy resilient, lesser-impaired symptomatic, and highly-impaired symptomatic. Much of the sample (68.4%) was in the healthy resilient group, endorsing low levels of grief, depression and generalized anxiety. The lesser-impaired symptomatic (16.3%) and highly-impaired symptomatic (15.4%) each had higher probabilities of meeting cutoffs for depression, grief and generalized anxiety. Both these symptomatic groups also described more negative life events after 9-11 than the healthy resilient group. However, members of the highly-impaired group were more likely to have experienced an emotional reaction to a trauma prior to 9-11. Membership in this group was associated with a 58% chance of endorsing PTSD symptoms (PCL5>=38), compared to a 0% chance in the other two groups. Public health implications will be discussed.

Performance of DSM-5 Criteria for Persistent Complex Bereavement Disorder
(Res Meth, Assess Dx-Clin Res-Death, Adult, M, N/A)

Mauro, Christine, PhD; Shear, M Katherine, MD; Cozza, Stephen, MD; Reynolds, Charles, MD; Simon, Naomi, MD; Zisook, Sidney, MD; Skritskaya, Natalia, PhD; Wang, Yuanjia, PhD; Lebowitz, Barry, PhD; Duan, Naihua, PhD; Gribbin, Colleen, MA; Fisher, Joscelyn, PhD; Zhou, Jing, MS; Ortiz, Claudio, PhD; Fullerton, Carol, PhD; Ursano, Robert, MD; Wall, Melanie,
Response to Complicated Grief
Treatment in Violent Compared to Natural Death

(Clin Res, Clin Res-Clinical Practice-Death-Grief, Adult, M, N/A)

Shear, M Katherine, MD1; Skritskaya, Natalia, PhD1; Mauro, Christine, PhD2; Gribbin, Colleen, MA1; Reynolds, Charles, MD3; Simon, Naomi, MD4; Zisook, Sidney, MD5; Lebowitz, Barry, PhD6
1Columbia University, Mailman School of Public Health, New York, New York, USA
2Columbia University School of Social Work, New York, New York, USA
3Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA
4University of Pittsburgh, Pittsburgh, Pennsylvania, USA
5Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
6University of California, San Diego, San Diego, California, USA
7University of California, San Francisco, San Diego, California, USA
8Columbia University, New York, New York, USA
9Hunter College, CUNY, New York, New York, USA
10York College, Jamaica, New York, USA

Criteria for Persistent Complex Bereavement Disorder (PCBD) were added to DSM-5 in Section 3. To evaluate these criteria, we used a structured clinical interview to establish the rate of PCBD in 240 bereaved adults seeking treatment for Complicated Grief (CG) and a comparison group of 86 bereaved individuals enrolled in other clinical research. Results were compared to research criteria sets for Prolonged Grief Disorder (PGD) and Complicated Grief. PCBD criteria identified 70% of the clinically diagnosed cases and none of the bereaved controls. Clinically diagnosed individuals not identified by PCBD criteria reported high levels of grief severity and grief-related impairment with mean scores on the Inventory of Complicated Grief = 40 and Work and Social Adjustment Scale = 21. In contrast, CG criteria identified 99.6% and PGD criteria identified 59.6% of treatment study participants and none of the bereaved controls. These results were replicated in a large community sample of bereaved military family members. PCBD is increasingly recognized as an impairing condition that causes considerable suffering. DSM-5 PCBD criteria currently fail to identify individuals with clinically significant levels of distress and impairment. There are efficacy tested treatments for this disorder; it is of great public health importance to be able to correctly identify those suffering from PCBD.

Complicated grief treatment (CGT) was developed and tested as a treatment for prolonged debilitating grief with maladaptive thoughts, dysfunctional behavior and ineffective emotion modulation that interfere with adaptation to the loss. CGT has been proven efficacious in two previous studies and aims to both resolve these interfering problems and foster adaptation. We recently conducted a 4-site NIMH-funded randomized controlled trial. Participants in this studies included individuals who lost loved ones from violent as well as natural causes. We compared response to CGT among participants (n=395) who were bereaved by violent causes (suicide, homicide, accident; n=132) and natural causes (n=263). The natural and violent death groups did not differ on baseline grief severity (ICG M=42.8, SD=8.9), but had different patterns in endorsement of maladaptive cognitions. In particular, the violent death group was more likely than the non-violent to agree with statements “this death should not have happened” (95% vs. 69% respectively), “your loved one did not have to die this way” (92% vs. 68%), and “it isn’t fair that your loved one died” (95% vs. 74%). Response rates to CGT for those bereaved by violent death were 80% vs. 84% for non-violent deaths. We conclude that CGT is an important public health strategy for those who are bereft by sudden, violent death.
Symposium
Thursday, November 10
1:15 PM to 2:30 PM
Dallas A2

Virtual Reality - Coming to a Clinic near You
(Tech, Clin Res-Clinical Practice-Depr, Adult, M,
Industrialized)

Brewin, Chris, PhD
University College London, London, United Kingdom

Over the last 20 years virtual reality has become an established option for clinicians wishing to augment the effects of exposure treatment for PTSD. In the past this was expensive in terms of equipment and programming time but recent innovations have seen low cost consumer versions of VR headsets and body tracking becoming widely available. In the first presentation Skip Rizzo will present an overview of the dramatic developments in VR hardware and software, and explain the principles behind their use and the key theoretical concepts in VR. In the second presentation Barbara Rothbaum will present data on the role played by re-experiencing symptoms in understanding the changes this therapy brings about in military veterans, and discuss the application of these methods to treating military sexual trauma. In the final presentation Chris Brewin will describe a specific intervention only available in VR, the use of identification with virtual bodies to create involuntary perceptual and emotional reactions. He will present outcome data using this technique to increase self-compassion in depression and discuss patients’ initial experiences with this use of immersive virtual reality.

Clinical Virtual Reality: A Brief Review of the Future and Beyond!
(Tech, Clin Res, Adult, M, Global)

Rizzo, Skip, PhD
University of Southern California, Los Angeles, California, USA

When discussion of the potential use of Virtual Reality (VR) applications for human research and clinical intervention first emerged in the early 1990s, the technology needed to deliver on this “vision” was not in place. Computers were too slow, 3D graphics were primitive, and head mounted displays (HMDs) were costly, bulky, and were of limited quality. However, over the last 20 years, the technology for creating VR systems has now caught up with this vision. Dramatic advances in the underlying VR-enabling technologies (e.g., computational speed, 3D graphics rendering, HMD systems, user interfaces/tracking, voice recognition, intelligent agents, and authoring software, etc.) have supported the creation of low-cost, yet sophisticated, immersive VR systems that are capable of running on consumer personal computers, and even mobile phones! Moreover, a large scientific literature has emerged over the last 20 years that has investigated the potential value that can be accrued with the use of VR to address a wide range of clinical health conditions. This presentation will deliver a brief non-technical description of what the technology involves and then describe the current state of the art for its application for the prevention, assessment and treatment of PTS and beyond.

Investigating the Relationships between PTSD Symptom Clusters within Virtual Reality Exposure Therapy for OEF/OIF Veterans
(Clin Res, Clin Res-Mil/Vets, Adult, M, N/A)

Rothbaum, Barbara, PhD, ABPP; Maples, Jessica, MS, PhD Student; Price, Matthew, PhD; Gerardi, Maryrose, PhD; Rauch, Sheila, PhD, ABPP
1Emory University School of Medicine, Atlanta, Georgia, USA
2University of Georgia, Athens, Georgia, USA
3University of Vermont, Burlington, Vermont, USA
4Emory University School of Medicine, Atlanta, Georgia, USA
5Emory University School of Medicine/Atlanta Veteran’s Administration, Atlanta, Georgia, USA

Virtual reality exposure (VRE) therapy includes imaginal exposure to veterans’ most traumatic war memories while the therapist matches what they describe in VR. The present study investigated the relations between PTSD symptom clusters using symptom assessment at pre-treatment, mid-treatment, and post-treatment using cross-lagged panel design over the course of VRE treatment. Participants were 156 Iraq and/or Afghanistan veterans who met DSM-IV criteria for PTSD due to military trauma. Using structural equation modeling, the final re-experiencing model demonstrated good fit ($\chi^2(343) = 39.956.15, p = .2232; \text{RMSEA} = .03425, 90\% \text{CI}:$}
[0.00, 0.07], CFI = .9936), and results suggested that re-experiencing at pre-treatment demonstrated a significant effect on numbing, avoidance, hyperarousal at mid-treatment, and re-experiencing symptoms at mid-treatment demonstrate a significant effect on each of the three symptom clusters at post-treatment. These findings suggest that re-experiencing symptoms are indeed a key aspect of the therapeutic process within exposure therapy for PTSD. Current application of VRE for military sexual trauma will also be discussed.

**Using Embodiment to Learn Self-Compassion within Immersive Virtual Reality**

(Tech, Clin Res-Clinical Practice-Depr, Adult, M, Industrialized)

**Brewin, Chris, PhD**  
University College London, London, United Kingdom

Self-criticism is a ubiquitous feature of psychopathology and can be combated by increasing levels of self-compassion. To achieve this we exploited the effects of self-identification with virtual bodies (avatar embodiment), an effect whereby individuals can be made to respond automatically to an avatar’s situation as though they were experiencing the situation themselves. We developed an 8-minute scenario in which 15 depressed patients practised delivering compassion in one virtual body and then experienced receiving it from themselves in another virtual body. In an open trial three repetitions of this scenario led to significant linear reductions in depression severity on the PHQ-9 (p = .003) and in self-criticism (p < .001), as well as to a significant linear increase in self-compassion (p = .02), from baseline to 4-week follow-up. Five patients showed reliable change and a further four showed clinically significant improvement. The results indicate that interventions using immersive virtual reality, a technology which is becoming widely-available at the consumer level, may have considerable clinical potential and that further development of these methods preparatory to a controlled trial is now warranted.

**Symposium**  
Thursday, November 10  
1:15 PM to 2:30 PM  
Dallas D1

**Integrative Approaches for Traumatic Stress Disorders and Addictions using CBT and Biological Interventions**  
(Clin Res, Bio Med-Clin Res-Sub/Abuse-Mil/Vets, Adult, M, Industrialized)

**Hien, Denise, PhD, ABPP**  
1Adelphi University, Derner Institute, Garden City, New York, USA  
2National Center for PTSD, San Diego, California, USA

This symposium aims to highlight advances for PTSD and SUD treatment by presenting emerging studies that incorporate biological and psychosocial evidence based techniques for civilian and military populations. Individuals with PTSD and other trauma related disorders often use substances to regulate negative emotional states. Integrated behavioral and biological treatments and techniques that can address these challenging and common conditions are imperative for improving treatment outcomes. First, Dr. Denise Hien et al. will present a secondary analysis examining pathways of symptom change by treatment type from an RCT for PTSD and alcohol use disorders that combined antidepressant medication and CBT. Second, Dr. Sudie Back et al. will present findings from a study that combined CBT for substance use with N-acetylcysteine in Veterans. Third, Dr. Christy Capone will present preliminary findings from a study of an integrated CBT for Veterans with AUD. Finally, Megan Moran Santa-Maria et al. will present data from a neuroimaging study comparing the effects of oxytocin vs. placebo on resting state connectivity between subjects with PTSD and trauma matched controls. Dr. Sonya Norman, an expert in PTSD and comorbidity in combat veterans, will discuss the importance of integrative treatments for comorbid PTSD and SUD, highlighting gains, challenges, and future directions.
Treatment of PTSD and Comorbid Addiction with N-acetylcysteine
(Clin Res, Sub/Abuse-Mil/Vets, Adult, M, N/A)

Back, Sudie, PhD1; Gros, Daniel, PhD2; Korte, Kristina, PhD3; Brady, Kathleen, MD, PhD4
1Medical University of South Carolina, Charleston, South Carolina, USA
2Medical University of South Carolina and the Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA
3Medical University of South Carolina/Charleston VA, Charleston, South Carolina, USA

Posttraumatic stress disorder (PTSD) is the most common mental health disorder among Veterans presenting at Veterans Affairs (VA) hospitals, and it is highly comorbid with substance use disorders (SUD). Veterans with PTSD/SUD evidence poor treatment outcomes on multiple indices of functioning (e.g., social and occupational functioning, physical health). The pharmacological treatment for co-occurring PTSD/SUD is not well explored. N-Acetylcysteine (NAC) is increasingly being investigated as a therapeutic agent for psychiatric conditions. This pilot study explored the efficacy of NAC in the treatment of Veterans (N=35) with PTSD and SUD. Participants were randomly assigned to a double-blind, 8-week course of NAC (2400 mg/day) or placebo plus cognitive-behavioral therapy for SUD. Primary outcome measures included the Clinician Administered PTSD Scale, PTSD Checklist-Military, Visual Analogue Scale for craving, Timeline Followback, and the Beck Depression Inventory. Participants treated with NAC evidenced significant improvements in PTSD symptoms, craving, and depression, as compared to placebo. Substance use was low for both groups and no significant between-group differences were observed. NAC was well tolerated and retention was high. Although preliminary, the findings provide initial support for the use of NAC in combination with psychotherapy for the treatment of PTSD/SUD.

Trajectory of PTSD Change with Combination Seeking Safety and Sertraline on Alcohol Use Outcomes
(Clin Res, Bio Med-Sub/Abuse, Adult, M, Industrialized)

Hien, Denise, PhD, ABPP1; Ruglass, Lesia, PhD2; Lopez-Castro, Teresa, PhD3
1Adelphi University, Derner Institute, Garden City, New York, USA
2City College of the City University of New York, New York, New York, USA
3City College of New York, New York, New York, USA

The current study tested the benefit of combining Seeking Safety (SS), a cognitive behavioral therapy for co-occurring posttraumatic stress disorder (PTSD) and alcohol use disorder (AUD), with sertraline. Improvements in PTSD have been identified with subsequent benefits on AUD outcomes. This secondary analysis will examine trajectories of symptom improvements mediated by medication impact. Method: Sixty-nine participants with primarily childhood sexual (46%) and drug dependence in addition to AUD were randomized to receive SS with either sertraline (n = 32) or placebo (n = 37). Results: Both groups demonstrated significant improvement in PTSD symptoms but SS with sertraline was superior. Both SS groups improved significantly on AUD severity at all posttreatment time points with no significant differences between SS plus sertraline and SS plus placebo. Analyses for trajectories of improvement will be presented. Conclusion: Results support combining CBT and sertraline for PTSD/AUD. Clinically significant reductions in both PTSD and AUD severity were achieved and sustained through 12-months follow-up. Moreover, greater mean improvement in PTSD symptoms was observed across all follow-up assessments in the SS plus sertraline group. Clinical implications for targeting symptoms will be discussed.

Integrated CBT for PTSD and Substance Use Disorders in Iraq and Afghanistan Veterans
(Clin Res, Clin Res-Mil/Vets, Adult, M, Industrialized)

Capone, Christy, PhD1; Presseau, Candice, MA2; Eaton, Erica, PhD3; McGovern, Mark, PhD4
1Brown University Center for Alcohol and Addiction Studies, Providence, Rhode Island, USA
2Providence VA Medical Center, Providence, Rhode Island, USA
3VA, Providence, Rhode Island, USA
4Dartmouth Medical School, Lebanon, New Hampshire, USA
Co-occurring posttraumatic stress disorder (PTSD) and substance use disorders (SUDs) are prevalent in military Veterans, associated with greater severity and poorer outcomes than either disorder alone, and present added challenges to treatment delivery within the Veterans Affairs system. Integrated Cognitive Behavioral Therapy (ICBT) has been found efficacious in community samples but requires further testing with Veterans. We present outcomes from a randomized controlled pilot trial comparing ICBT plus standard care to standard care (SC) only in a sample (N = 44) of Iraq and Afghanistan Veterans. Participants (95.5% male; 84.1% Caucasian) completed measures of PTSD and substance use symptoms at baseline, post-treatment, and 3-month follow-up assessments. Preliminary analyses showed a trend toward symptom reduction (e.g., PTSD symptom severity ICBT: M=76.33 vs. M=61.17 vs. M=66.07; SC: M=78.78 vs. M=69.42 vs. M=62.27 at baseline, post-treatment and 3-months, respectively). Further analyses are underway to test for the effects of time and time x condition interactions on outcomes of interest using generalized estimating equations (GEE). Although preliminary and descriptive thus far, results suggest that effects of ICBT in Veterans fall short of those observed within community samples. Challenges to implementation and potential improvements to the intervention will be discussed.

Does Oxytocin Modulate Functional Brain Connectivity in Trauma Exposed Individuals? (Bio Med, Clin Res-Neuro-Gender, Adult, M, N/A)

Moran-Santa Maria, Megan, PhD1; Vaughn, Brandon, BS2; Flanagan, Julianne, PhD1; Back, Sudie, PhD1; Joseph, Jane, PhD1
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Trauma exposure (TE) can have different effects on men and women, by modifying neural circuitry in sexually dimorphic ways. Oxytocin (OT) may reduce stress reactivity in TE individuals, but effects of OT may differ for men and women. This study examined the association between brain networks and childhood trauma scores in TE men and women and the modulation of that association by OT. We hypothesized that network connectivity of regions involved in hyper-vigilance and salience detection (e.g., amygdala, insula) would be modified by OT, particularly in TE women due to their greater susceptibility to develop PTSD. TE women with higher trauma scores showed reduced connectivity in the right amygdala (rho = -.52, p = .048), but this association was attenuated by OT. TE men with higher trauma scores showed reduced information diffusion in the right amygdala (rho = -.55, p = .032) and this association was reversed by OT. For both men and women, these preliminary findings indicate that OT increases global connectivity of the right amygdala albeit in subtly different ways. The increased amygdala connectivity with more diverse brain regions could potentially provide a window for increased conscious processing of emotions and top-down regulation of affective behavior.

Symposium
Thursday, November 10
1:15 PM to 2:30 PM
Dallas D2

Examining the Impact of PTSD on Work, Family, and Other Related Quality of Life Outcomes in Veterans of the Wars in Iraq and Afghanistan (Pub Health, Assess Dx-QoL-Mil/Vets-Gender, Adult, I, Industrialized)

Smith, Brian, PhD
National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA

Understanding the implications of PTSD for work- and family-related quality of life represents an important public health issue for veterans. Not only do the domains of work and family have the potential to fulfill veterans’ basic needs for financial security and social connection, they can also provide a fundamental sense of purpose and meaning in life. However, preliminary findings in the area indicate that veterans experience greater difficulty in these domains than their civilian peers, thus representing a public health disparity that warrants further attention. It has been suggested that these challenges may be accounted for, at least in part, by veterans’ risk for PTSD and other mental health conditions associated with exposure to traumatic stress during military service. The aim of this symposium is to present
novel methods and data involving the relationship between PTSD and a broad range of work, family, and other related functioning and quality of life outcomes among male and female veterans of the recent wars in Iraq and Afghanistan. The utility of current measures and findings involving the study of these constructs will be discussed in terms of implications for research and the provision of employment- and family-related support to veterans with PTSD.

Consequences of PTSD for the Work and Family Quality of Life of Female and Male U.S. Afghanistan and Iraq War Veterans
(Clin Res, Clin Res-QoL-Mil/Vets-Gender, Adult, I, Industrialized)

Vogt, Dawne, PhD1; Smith, Brian, PhD1; Fox, Annie, PhD2; Schnurr, Paula, PhD3
1National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
2VA Boston Healthcare System, National Center for PTSD, Boston, Massachusetts, USA
3National Center for PTSD, Department of Veterans Affairs, White River Junction, Vermont, USA

Although it is well-established that combat-related PTSD can lead to reduced quality of life, less is known about the implications of PTSD for specific aspects of veterans’ lives. Moreover, research on PTSD’s impact on female veterans’ work and family lives is limited. The aims of the current study were to document the work and family quality of life of a sample of U.S. veterans deployed in support of the wars in Afghanistan or Iraq and to evaluate the gender-specific impact of PTSD on veterans’ subsequent work and family outcomes. Descriptive and regression-based analyses were gender-stratified and weighted to enhance representativeness to the larger population. Although both female and male veterans reported high work and family quality of life, PTSD was associated with poorer work and family outcomes, with stronger effects for romantic relationships. In contrast, PTSD was not associated with employment or relationship status for women or men. Findings suggest that PTSD negatively impacts veterans’ experience but does not entirely erode their participation in key life roles. Results support the need for interventions to reduce PTSD’s negative impact on veterans’ work and family lives and suggest that there are more similarities than gender differences in the consequences of PTSD for quality of life.

The Roles of PTSD, Depression, and Alcohol Misuse Symptomatology in Linking Deployment Stressors and Work and Family Outcomes in Male and Female Veterans
(Pub Health, QoL-Res Meth-Mil/Vets-Gender, Adult, I, Industrialized)

Smith, Brian, PhD1; Taverna, Emily, BA2; Fox, Annie, PhD3; Schnurr, Paula, PhD4; Matteo, Rebecca, PhD5; Vogt, Dawne, PhD1
1National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
2National Center for PTSD, VA Boston Healthcare System, Jamaica Plain, Massachusetts, USA
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4National Center for PTSD, Department of Veterans Affairs, White River Junction, Vermont, USA
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Exposure to stressors during military deployment puts service members at risk for reduced post-deployment quality of life (QOL). Early studies in the area suggest that PTSD and other mental health problems are associated with decreased functioning across life domains, including work and family, and thus represent potential pathways of risk. Gender differences have been underexplored to date. This study examined associations between military stressors (warfare exposure, sexual harassment, and family stressors) and work- and family-related outcomes (functioning and satisfaction), with a focus on PTSD, depression, and alcohol misuse symptomatology as potential mediators. Participants included 522 OEF/OIF veterans assessed on deployment stressor exposure and mental health within 2 years of deployment return. Indicators of work and family QOL were assessed 3.5 years later. Gender-stratified structural equation models supported a number of risk pathways linking deployment stressors to work and family outcomes for men and women, and PTSD was found to play a highly important role in these associations. Depression also played a significant role, particularly for women. Study results suggest that salient deployment stressors are associated with reduced
The need to assess posttraumatic stress disorder (PTSD)-related functional impairment is widespread across research and clinical settings. However, no measure currently exists for identifying PTSD-specific impairment in key life domains, including work and family. Our goal was to create an inventory to assess multiple dimensions of PTSD-related functional impairment. This presentation will review findings from two phases that were completed in developing a PTSD-specific measure of psychosocial impairment: the Inventory of Psychosocial Functioning (IPF). In Phase I (n = 53), focus groups and individual assessments were used to identify the multiple domains of functional impairment and develop the IPF. In Phase II (n = 276) we examined the utility of the IPF. Results showed that participants with PTSD endorsed significantly greater impairment than those without PTSD on the IPF total score and 6 of the 7 subscales. Further, the IPF total and subscale scores were significantly and robustly correlated with measures of mental health functioning (all rs > .39; all ps < .01), and demonstrated significant but weaker correlations with measures assessing physical functioning (all rs < .16; all ps < .01). The unique properties of the IPF, including the inclusion of independent work and family domains, will be discussed.

Perceived Impact of PTSD Symptoms on Work, Social, and Quality of Life Outcomes in Veterans: Exploring the Potential Benefits of a PTSD Specific Functioning Measure
(Assess Dx, Clin Res-QoL, Adult, I, Industrialized)

McCaslin, Shannon, PhD1; Maguen, Shira, PhD2; Metzler, Thomas, MA3; Bosch, Jeanie, MS, PhD Student4; Neylan, Thomas, MD5; Marmar, Charles, MD6

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2San Francisco VA Medical Center and UCSF, San Francisco, California, USA
3San Francisco VA Medical Center (VAMC-SF), San Francisco, California, USA
4Saint Louis University, Saint Louis, Missouri, USA
5New York University School of Medicine, New York, New York, USA

The Posttraumatic Stress Related Functioning Inventory (PRFI) was developed to facilitate better understanding of the perceived impact of PTSD symptoms on occupational and social functioning and lifestyle. The psychometric properties of the PRFI were examined in 251 Iraq and Afghanistan veterans who endorsed the presence of subsyndromal or greater levels of PTSD symptoms. One-year test-retest reliability of the measure was examined in a subset of the sample (n = 109). Higher levels of PTSD symptoms were associated with poorer functioning across domains. The initial examination of psychometric properties of the scale indicated that it may be a useful tool for efficiently eliciting information about the impact of PTSD symptoms on functioning. The PRFI allows examination of the impact of symptom clusters. In this sample, avoidance symptoms were rated as having significantly more impact on lifestyle than the other two domains, whereas numbing symptoms were rated to have greatest impact on social relationships and lifestyle. Hyperarousal symptoms were reported to be
Screening for Childhood Adversity with Depressed and Non-Depressed Older Adults
(Assess Dx, Assess Dx-Dev/Int-Pub Health-Aging, Older, M, Industrialized)

Ford, Julian, PhD; Steffens, David, MD; Wu, Rong, MS
University of Connecticut Health Center, Farmington, Connecticut, USA

Studies with community (Ege et al., 2015) and American Indian (Roh et al., 2015) samples report that adverse childhood experiences are associated with depression in older adults. This study extends those findings by assessing all 10 ACEs with adults (69% female; 88% White; M age = 73.5, Range = 60-89) with structured interview-confirmed major depression (N=28) or no depression (N=29). Almost half (44%) of the depressed participants reported 2 or more ACEs (M = 1.9, SD = 2.1) versus 28% non-depressed participants (M = 1.1, SD = 1.6). Cumulative ACE score correlated with trait anxiety, negative affect, neuroticism, and openness to experience (r = .28-.41, p < .05) for the entire sample but only with openness to experience (r = .51, p < .01) among depressed adults and only with agreeableness (inverse) and trait anxiety (r = .35-.38, p =.04-.07) among non-depressed adults. ACEs were unrelated to cumulative illness status (r = .01). Results replicate prior investigations’ findings by linking multiple ACEs exposure to diagnosed depression and associated emotional distress while suggesting differential relationships between ACEs and emotional distress for depressed vs. non-depressed older adults. In this physically healthy older adult sample ACEs were unrelated to physical illness. Implications for research and screening of ACEs and depression with older adults will be discussed.

Initial Psychometric Properties of the Structured Trauma-Related Experiences and Symptoms Screener for Adults in a Prenatal Care Clinic Sample of Pregnant Women
(Assess Dx, Assess Dx-CPA-CSA-Prevent, Adult, M, Industrialized)

Grasso, Damion, PhD1; Ford, Julian, PhD1; Greene, Carolyn, PhD2

Identifying individuals whose health problems may be exacerbated by post-traumatic stress is increasingly recognized by the pediatric, adult, family practice, and geriatric healthcare professions as a public health imperative. Efficient evidence based tools for trauma symptoms screening have been developed for pediatric (e.g., Bosquet Enlow et al., 2010) and adult (e.g., Prins et al., 2003; Van Dam et al., 2010) healthcare, but tools for lifetime trauma history screening by healthcare providers tend to be limited to selective lists of adversities and rarely tested with older adults. Three presentations will describe initial reliability, validity and feasibility evidence for trauma/adversity screening instruments across the lifespan: (1) a new brief but comprehensive trauma history screening for children, the Rapid Assessment of Pediatric Adversity and Trauma (RAPAT) in urban pediatric emergency/acute care; (2) the Structured Trauma-Related Experiences and Symptoms Survey (STRESS; Grasso et al., 2015) with women presenting for prenatal care and (3), a 10-item ACES screen with adults ages 60-89 years old after structured interview diagnosis/rule out of major depression. Implications for a lifespan approach to traumatic stress screening as a public health priority and for developmentally sensitive and inclusive research on trauma screening in healthcare will be discussed.
Evidence for the intergenerational transmission of trauma implores efforts to identify and address potentially traumatic events (PTEs) and related symptoms in mothers during pregnancy - when maternal functioning has a palpable impact on fetal development (Moog et al., 2015). This presentation introduces the Structured Trauma-Related Experiences and Symptoms Screener for adults (STRESS-A), a new tool for assessing lifetime PTEs and symptoms of DSM-5 defined posttraumatic stress disorder (PTSD). We will present results from a study examining initial psychometric properties of the STRESS-A in a sample of 82 women recruited from an urban prenatal care clinic. Of the sample, 76% endorsed at least one PTE. The number of child abuse-related PTEs on the STRESS-A correlated with subscales of the Child Trauma Questionnaire (rs=.52-.71) and adult PTEs correlated with scores on the Life Events Checklist (rs=.39) and Conflict Tactics Scales (rs=.47). Confirmatory factor analysis supported the DSM-5 symptom structure of the STRESS-A and 35% of the sample met criteria for probable PTSD. Symptom scores correlated with a number of measures including the Depression, Anxiety, Stress Scales, the Difficulties in Emotion Regulation Scale, and the Prenatal Distress Questionnaire (rs=.25-.46). Implications for use of the STRESS-A in healthcare settings are discussed.

Rapid Assessment of Pediatric Adversity and Trauma (RAPAT): A Two-Part Process
(Assess Dx, CPA-Clinical Practice-Health-Prevent, Child/Adol, M, Industrialized)

Sugar, Jeff, MD
University of Southern California Keck School of Medicine, Los Angeles, California, USA

Objective: To develop and validate a rapid screening process for pediatric adversity—including child abuse and neglect—that can be administered in medical or mental-health settings and is both sensitive and specific. Methods: RAPAT begins with a set of 22 screening questions designed for maximum sensitivity that include all experiences in the landmark Adverse Childhood Experiences study. There are also questions about attachment, coping, and impairment in 6 domains. Responses are “Yes, No,” and “Pass.” Any question answered affirmatively for adversity are followed with very specific standardized clarifiers. Versions for Caregiver and Child are in English and Spanish.

Results: In an inner city Pediatric Emergency Department 60 unselected children completed the process and 50% reported at least one adversity. Number of adversity types reported predicted impairment and number of categories of impairment. The number of Passed items also predicted impairment. Conclusion: RAPAT can efficiently and accurately screen for adversity in a Pediatric ED. Unwillingness to report adversity predicts impairment due to adversity. Early identification may help mitigate the long-term consequences of child adversity, well-documented in the ACE study, including the development of both mental and physical illness.

Identifying Classes of Trauma Exposure across the Life Span: Findings from a Multi-Survey Latent Class Analysis
(Pub Health, CPA-Chronic-Gender, Lifespan, M, Industrialized)

Steel, Zachary, PhD1; O'Donnell, Meaghan, PhD2; Hadzi-Pavlovic, Dusan, MPsych1; McFarlane, Alexander, MD3; Van Hooff, Miranda, BA (Hons), PhD4; Bryant, Richard, PhD4

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

We apply Latent Class Analysis (LCA) to identify classes of individuals with similar profiles of exposure to a common set of potentially traumatic events (PTE) in a nationally representative population survey and two trauma exposed samples across three age groups. Method: LCA models for 11 categories of PTE exposure were calculated at age 12; age 16; and for lifetime exposure. The samples included the 2007 Australian National Survey of Mental Health and Wellbeing (N= 8,822) the Injury Vulnerability Study comprising traumatic injury patients from four trauma hospitals in Australia (N =
show a way symptoms and biology may both contribute to the picture. Taken together, these presentations tell us that symptoms and biology are complementary. While symptoms have good predictive power, biology is crucial in informing us what these predictions mean and provide the relevant targets for prevention and treatment. The symposium will substantiate and sharpen the often-blurred distinction between prediction and causation.

**Integrating Early Neuroendocrine and Behavioral Responses to Predict the Development of PTSD**
(Res Meth, Assess Dx-Bio Med, Adult, A, Global)

**Galatzer-Levy, Isaac, PhD:** Ma, Sisi, PhD; Shalev, Arieh, MD  
*New York University Langone Medical Center, New York, New York, USA*

Interactions between acute neuroendocrine and behavioral responses to trauma alter the propensity to develop post-traumatic psychopathology. Characterizing such multimodal interactions requires novel approaches. We will discuss the role of machine learning (ML) methods in forecasting specific predictors of PTSD symptoms trajectories from data collected shortly after trauma. 152 survivors of traumatic events provided clinical information and measures of neuroendocrine responses (plasma cortisol, norepinephrine and ACTH; saliva cortisol and urine cortisol excretion) during emergency room (ER) admission following trauma and 1 week, 1 and 5 months later. Support vector machines were utilized to build a classifier identifying non-remitting PTSD. Cross validation examined the classifier’s robustness. Results demonstrate robust classification using neuroendocrine and clinical indicators together. Only ER endocrine responses added to predicting from clinical features. Causal graph modelling implied ER cortisol in the pathogenesis of PTSD among survivors with a history of child abuse. We conclude that ML classifiers successfully combine clinical and biological information in forecasting non-remitting PTSD. Symptoms predicted better than neuroendocrine responses. The latter, however, identified a causal role of ER cortisol in a subset of survivors.

**Symposium**  
**Thursday, November 10**  
**1:15 PM to 2:30 PM**  
**San Antonio Ballroom A**

**Prediction of Posttraumatic Psychopathology in Recent Trauma Survivors, Do We Need Biology?**  

**Shalev, Arieh, MD**  
*New York University Langone Medical Center, New York, New York, USA*

Identifying vulnerable population shortly after trauma and predicting the development of posttraumatic stress disorder (PTSD) is a crucial step towards effective prevention and treatment strategies after traumatic events. In this symposium, we will present both studies that utilized symptom based observations and those with biological indicators to predict the development of posttraumatic psychopathology, and critically examine the informational value they can bring to the field. We will first review the current state of the field of predicting PTSD, followed by a presentation of a symptom-driven prediction model using data from the international consortium to predict PTSD (ICPP). For a contrasting approach, we will also present prediction on the basis of biology. In the final presentation, a machine-learning approach which is theoretically blind to the source of information, will
Early Symptoms Predict Long-Term PTSD in an International Pooled Sample
(Assess Dx, Acc/Inj-Acute-Prevent, Adult, A, Global)

Gevonden, Martin, PhD\(^1\); Ratanatharathorn, Andrew, MA PhD Student\(^2\); Qi, Wei, MD\(^1\); Bryant, Richard, PhD\(^4\); Delahanty, Douglas, PhD\(^4\); Matsuoka, Yutaka, MD PhD\(^5\); O’Connor, Paul, BSc\(^6\); Olff, Miranda, PhD\(^7\); Robinson, James, MS, Ed\(^6\); Schnyder, Ulrich, MD\(^8\); Koenen, Karestan, PhD\(^8\); Laska, Eugene, PhD\(^1\); Shalev, Arieh, MD\(^1\)

\(^1\)New York University Langone Medical Center, New York, New York, USA
\(^2\)Columbia University, Mailman School of Public Health, New York, New York, USA
\(^3\)University of New South Wales, Sydney, New South Wales, Australia
\(^4\)Kent State University, Kent, Ohio, USA
\(^5\)National Center of Neurology and Psychiatry, Kodaira, Tokyo, Japan
\(^6\)Nathan Kline Institute, NYU School of Medicine, Orangeburg, New York, USA
\(^7\)Academic Medical Center at the University of Amsterdam and Arq Psychotrauma Expert Group, Amsterdam, Noord-Holland, Netherlands
\(^8\)Zurich University, Zurich, Switzerland
\(^9\)Harvard School of Public Health, Boston, Massachusetts, USA

Background: Chronic posttraumatic stress disorder (PTSD) is a possible consequence of trauma. A predictive test identifying which individuals are highly likely to develop PTSD from clinical data easily obtained early after the traumatic event would create opportunities for targeted prevention.

Methods: A combined dataset was compiled from 7 longitudinal emergency department studies of PTSD (n=2,690) which used the clinician administered PTSD scale (CAPS). Diagnostic status at 140-720 days post-trauma was predicted using a Bayesian logistic regression model from 17 baseline symptoms (>60 days post-trauma) and demographics.

Results: Our main model predicted PTSD with an area-under-the-curve (AUC) of 0.85. Results were robust to adjustments for trauma type and underlying rates of PTSD in each cohort. The model more accurately predicted early PTSD diagnoses (140-270 days post-trauma, AUC= 0.88) compared to later diagnoses (270-720 days post-trauma, AUC=0.83). PTSD prediction remained robust when testing a model with only the 7 most predictive CAPS symptoms and demographics. Conclusion: Early PTSD symptoms are consistent predictors of later diagnostic status across sites in different countries. They are good candidates to form the core of a prognostic predictive test of PTSD.

Closing the Gap between Risk Factors and Prognostic Prediction of PTSD
(Clin Res, Prevent-Res Meth, Adult, A, Global)

Qi, Wei, MD\(^1\); Gevonden, Martin, PhD\(^1\); Ratanatharathorn, Andrew, MS, PhD Student\(^2\); Shalev, Arieh, MD\(^1\); Koenen, Karestan, PhD\(^8\)

\(^1\)New York University Langone Medical Center, New York, New York, USA
\(^2\)Columbia University School of Public Health, New York, New York, USA
\(^3\)Harvard School of Public Health, Boston, Massachusetts, USA

Work labeled as ‘prediction of PTSD’ has identified risk factors predictive at population level, which include socio-demographic information, mental health history, event characteristics, peri-traumatic responses, symptoms, physiological and endocrine responses, genetic profiles and recovery environment. Studies measured such risk factors early after trauma to predict mid- to long-term PTSD have generally shown good sensitivities, specificities and areas under the curve. These parameters tell us such tests can predict chronic PTSD in the population quite well. However, this does not equate good predictive value for an individual. While negative prediction is often excellent, between .95 and .99, providing us near-certainty that a part of the population will be fine, positive prediction is in the 0.3 to 0.5 range, which may not provide sufficient information for clinicians to initiate preventive or therapeutic interventions. Closing this gap between population-level predictors and individual-level prognostic prediction poses certain challenges, but is necessary in order to undertake targeted prevention. Using advanced analytic models and investigating the biological basis of posttraumatic psychopathology may be avenues to enhance individualized prediction to be sufficiently informative and practical to implement.
Can Network Associations of Psychological and Biological Factors Predict PTSD?
(Assess Dx, Acc/Inj-Prevent-Res Meth, Adult, A, Industrialized)

**Bryant, Richard, PhD**1; O'Donnell, Meaghan, PhD2; Creamer, Mark, PhD3; Forbes, David, PhD2; McFarlane, Alexander, MD2; Silove, Derrick, MD, PhD4

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

There is convergent evidence that both psychological and biological factors in the acute phase after trauma can predict later PTSD. Recent approaches have investigated the manner in which symptoms are connected in networks and how they may drive other related symptoms. In this study we used a network approach in a longitudinal design to test whether network patterns of acute psychological and biological factors can predict later PTSD. Patients who were admitted to hospital following traumatic injury (N = 1054) were assessed within the initial week for psychological symptoms of PTSD as well as objective indices of heart rate and respiration rate. Network analyses were conducted on these variables in the acute phase and also 12 months later. Network patterns were markedly different across phases, with more distinct patterns of network associations consistent with PTSD constructs. Results will also be presented in relation to how network patterns of psychological and biological indices in the acute phase can predict chronic PTSD.

Panel Presentation
Thursday, November 10
1:15 PM to 2:30 PM

Houston Ballroom A
What Next? Sustainment of Evidence-Based Practices
(Train/Ed/Dis, CPA-Clin Res-Commun, Child/Adol, M, Industrialized)

**Lang, Jason, PhD**1; Ake, George, PhD2; Berliner, Lucy, MSW3; Halladay Goldman, Jane, PhD MSW4

1Child Health and Development Institute, Farmington, Connecticut, USA
2Duke University School of Medicine, Durham, North Carolina, USA
3University of Washington/Harborview Medical Center, Seattle, Washington, USA
4National Center for Child Traumatic Stress, Los Angeles, California, USA

Dissemination of evidence-based practices (EBPs) is increasing rapidly, yet little is known about how to best sustain EBPs over time. This panel will provide four examples from longitudinal dissemination initiatives that have implications for sustainment of EBPs. Dr. Lang will discuss findings from an 8-year dissemination of TF-CBT to 29 agencies and 700 clinicians serving more than 5,500 children through a statewide Center charged with training, consultation, data reporting, credentialing, and performance-based incentives. Dr. Berliner will discuss Washington State’s efforts using a low-cost, public health approach to expand EBPs in children's community mental health with the CBT+ model, which addresses the 4 most common childhood disorders (anxiety, depression, trauma impact, disruptive behavior). Dr. Ake will discuss the NCTSN’s work disseminating EBPs and a recent survey conducted about how EBPs have been sustained over the past 10 years. Dr. Halladay Goldman will share examples of successful practices from the NCTSN for sustaining EBPs including foster parent, juvenile justice staff, and child welfare staff training, as well as supporting data from a multi-site evaluation of a resource parent workshop. Panelists will discuss barriers and facilitators, lessons learned and identify evidence-informed key resources for sustaining EBPs.
Workshop Presentation
Thursday, November 10
1:15 PM to 2:30 PM

Dallas A3
Exposure, Relaxation, and Rescripting Therapy for Children: A Cognitive Behavioral Treatment for Child and Adolescent Trauma Related Nightmares
(Clin Res, Sleep, Child/Adol, I, N/A)

Cromer, Lisa, PhD1; Borntrager, Cameo, PhD2; Fernandez Lopez, Shantel, PhD3
1The University of Tulsa, Tulsa, Oklahoma, USA
2University of Montana, Missoula, Montana, USA
3Tripler Army Medical Center, Honolulu, Hawaii, USA

Sleep problems, especially nightmares, are common among children who have experienced a traumatic event. In fact, nightmares are considered a hallmark symptom of PTSD and treatments such as Exposure, Relaxation, and Rescripting Therapy for Children (ERRT-C) have been developed. ERRT-C is a cognitive-behavioral treatment for trauma related nightmares and sleep problems. It is a brief treatment that involves psychoeducation about trauma and nightmares, relaxation training, sleep hygiene, exposure to nightmares, and rescription. This workshop will present information on trauma, sleep, and nightmares specific to children. Participants will learn about the evidence supporting the adult and child versions of this treatment. Active treatment components will be presented and workshop participants will have the opportunity to role plan and practice components of ERRT-C.

Oral Paper Presentations
Thursday, November 10
1:15 PM to 2:30 PM

Neuroimaging One Paper Session

Combining Acute Stress Symptoms and Hippocampal Volume in Machine Learning Prediction of PTSD
(Bio Med, Neuro, Adult, A, Global)

Wang, Xin, MD, PhD1; Xie, Hong, MD PhD1; Kessler, Daniel, MS2; Elhai, Jon, PhD1; Liberzon, Israel, MD2
1University of Toledo, Toledo, Ohio, USA
2University of Michigan, Ann Arbor, Michigan, USA

There is great need for early identification of trauma survivors at high risk for developing PTSD, as early interventions might prevent or reduce PTSD symptoms. Recent studies using machine learning analysis (MLA) of stress symptoms and other psychosocial factors to predict PTSD, show promising results, but predictive power is still limited. Accumulating evidence suggests that hippocampal volume might be smaller in some PTSD patients, and we thus hypothesized that inclusion of hippocampal volume, measured in the early post-trauma period, can improve prediction of PTSD. We examined the hippocampal volume within days after motor vehicle collision (MVC), and used this measure in the MLA prediction of PTSD. We found smaller left hippocampal volume in survivors (n=24) who subsequently developed PTSD symptoms at 3 months after MVC as compared to survivor (n=24) who did not develop PTSD symptoms, and including this variable in addition to acute stress symptoms improved the accuracy, specificity, and sensitivity of MLA classification. These results suggest smaller hippocampal volume exists in the early post-trauma period, and combination of brain structural and symptom measures better predict PTSD development.
Epigenetic Profiles Associated with Childhood Maltreatment and Post-Traumatic Stress Disorder
(Bio Med, Anx-Bio Med-CPA-Genetic, Adult, M, Industrialized)

Bustamante, Angela, BS, MS1; Aiello, Allison, MS, PhD2; Koenen, Karestan, PhD3; Ratanatharathorn, Andrew, MS (PhD Student)4; Wildman, Derek, PhD5; Uddin, Monica, PhD6

1University of Illinois, Urbana, Illinois, USA
2University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Chapel Hill, North Carolina, USA
3Harvard School of Public Health, Boston, Massachusetts, USA
4Columbia University School of Public Health, New York, New York, USA
5University of Illinois at Urbana-Champaign, Urbana, Illinois, USA
6University of Illinois, Champaign, Illinois, USA

Early life environment is a crucial time, as many biologic processes are developing. Exposure to childhood maltreatment (CM) significantly increases the risk for PTSD later in life. Despite this risk, few studies have examined the epigenetic impact of both CM and PTSD. We therefore propose to take a systems-biology approach to examine the blood-derived DNA methylation profiles associated with CM and PTSD to better describe the biologic networks associated with these exposures. Participants (N=152) from the Detroit Neighborhood Health Study, a longitudinal epidemiologic population-based study of adult Detroit residents, were selected for testing via Illumina’s HM450 BeadChip. Trauma exposure, PTSD and CM histories were collected via structured telephone interviews. Data was analyzed in R, controlling for age, sex, race, and CM (PTSD analyses) or PTSD (CM analyses). Weighted gene co-expression network analysis will be used to detect gene networks associated with CM and PTSD, respectively. Gene enrichment will be determined using GO.db. Results for CM and PTSD will be discussed separately and compared for similarity between epigenetic profiles. The potential functional effect of significant profiles will be examined in a subset of participants (n=63) for whom gene expression data is available. This work will contribute to our understanding of the biologic impact of CM and PTSD.

Structural Alterations in the Brain and their Associations with Psychological and Psychosocial Characteristics in Sexual Assault Victims
(Bio Med, Affect/Int-Rape-Social-Neuro, Adult, M, Industrialized)

Berman, Zohar, Doctoral Student; Assaf, Yaniv, PhD; Tarrasch, Ricardo, PhD; Ginzburg, Karni, PhD; Joel, Daphna, PhD

Tel Aviv University, TEL AVIV, Israel, Israel

Sexual assault is a frequent traumatic experience, associated with high susceptibility to psychopathology and other severe health-related consequences. Nevertheless, and in contrast to other traumatic experiences (e.g., combat exposure), only few studies have assessed the effects of sexual assault experienced in adulthood on brain anatomy. Here, we used high-resolution T1- and diffusion-weighted MRI in order to assess alterations in macro- and microstructure, respectively, in women who were sexually assaulted during the past 3 years and after the age of 18. We also explored the associations between neural characteristics and psychological and psychosocial factors related to the psychological outcome of the assault (e.g., PTSD, social support, self-blame). Preliminary results support the existence of modifications in gray matter density and fractional anisotropy in the brains of victims compared with controls. Furthermore, we obtained significant correlations between victims’ scores in the psychological and psychosocial dimensions and their neuroanatomical indices in several relevant structures. Identifying the structural alterations following sexual assault, as well as elucidating their psychological and psychosocial correlates, is important for a better understanding of the implications of this experience, and could contribute to the development of therapeutic strategies.

Interactive Sensitizing Effects of Early and Later Exposure to Childhood Maltreatment on Amygdala Volume
(Bio Med, CPA-CSA-Neglect-Neuro, Lifespan, M, Industrialized)

Teicher, Martin, MD1; Anderson, Carl, PhD1; Ohashi, Kyoko, PhD1; McGreener, Cynthia, PhD1; Joel, Daphna, PhD1; Assaf, Yaniv, PhD1; Tarrasch, Ricardo, PhD1; Ginzburg, Karni, PhD1; Yokley, Kathryn, PhD1; Ratanatharathorn, Andrew, MS (PhD Student)1; Wildman, Derek, PhD1; Uddin, Monica, PhD1; Koenen, Karestan, PhD1; Ratanatharathorn, Andrew, MS (PhD Student)1; Wildman, Derek, PhD1; Uddin, Monica, PhD1; Koenen, Karestan, PhD1

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3Harvard School of Public Health, Boston, Massachusetts, USA
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Early life environment is a crucial time, as many biologic processes are developing. Exposure to childhood maltreatment (CM) significantly increases the risk for PTSD later in life. Despite this risk, few studies have examined the epigenetic impact of both CM and PTSD. We therefore propose to take a systems-biology approach to examine the blood-derived DNA methylation profiles associated with CM and PTSD to better describe the biologic networks associated with these exposures. Participants (N=152) from the Detroit Neighborhood Health Study, a longitudinal epidemiologic population-based study of adult Detroit residents, were selected for testing via Illumina’s HM450 BeadChip. Trauma exposure, PTSD and CM histories were collected via structured telephone interviews. Data was analyzed in R, controlling for age, sex, race, and CM (PTSD analyses) or PTSD (CM analyses). Weighted gene co-expression network analysis will be used to detect gene networks associated with CM and PTSD, respectively. Gene enrichment will be determined using GO.db. Results for CM and PTSD will be discussed separately and compared for similarity between epigenetic profiles. The potential functional effect of significant profiles will be examined in a subset of participants (n=63) for whom gene expression data is available. This work will contribute to our understanding of the biologic impact of CM and PTSD.

Structural Alterations in the Brain and their Associations with Psychological and Psychosocial Characteristics in Sexual Assault Victims
(Bio Med, Affect/Int-Rape-Social-Neuro, Adult, M, Industrialized)

Berman, Zohar, Doctoral Student; Assaf, Yaniv, PhD; Tarrasch, Ricardo, PhD; Ginzburg, Karni, PhD; Joel, Daphna, PhD

Tel Aviv University, TEL AVIV, Israel, Israel

Sexual assault is a frequent traumatic experience, associated with high susceptibility to psychopathology and other severe health-related consequences. Nevertheless, and in contrast to other traumatic experiences (e.g., combat exposure), only few studies have assessed the effects of sexual assault experienced in adulthood on brain anatomy. Here, we used high-resolution T1- and diffusion-weighted MRI in order to assess alterations in macro- and microstructure, respectively, in women who were sexually assaulted during the past 3 years and after the age of 18. We also explored the associations between neural characteristics and psychological and psychosocial factors related to the psychological outcome of the assault (e.g., PTSD, social support, self-blame). Preliminary results support the existence of modifications in gray matter density and fractional anisotropy in the brains of victims compared with controls. Furthermore, we obtained significant correlations between victims’ scores in the psychological and psychosocial dimensions and their neuroanatomical indices in several relevant structures. Identifying the structural alterations following sexual assault, as well as elucidating their psychological and psychosocial correlates, is important for a better understanding of the implications of this experience, and could contribute to the development of therapeutic strategies.

Interactive Sensitizing Effects of Early and Later Exposure to Childhood Maltreatment on Amygdala Volume
(Bio Med, CPA-CSA-Neglect-Neuro, Lifespan, M, Industrialized)

Teicher, Martin, MD1; Anderson, Carl, PhD1; Ohashi, Kyoko, PhD1; McGreener, Cynthia, PhD1; Joel, Daphna, PhD1; Assaf, Yaniv, PhD1; Tarrasch, Ricardo, PhD1; Ginzburg, Karni, PhD1; Yokley, Kathryn, PhD1; Ratanatharathorn, Andrew, MS (PhD Student)1; Wildman, Derek, PhD1; Uddin, Monica, PhD1; Koenen, Karestan, PhD1; Ratanatharathorn, Andrew, MS (PhD Student)1; Wildman, Derek, PhD1; Uddin, Monica, PhD1; Koenen, Karestan, PhD1

1University of Illinois, Urbana, Illinois, USA
2University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Chapel Hill, North Carolina, USA
3Harvard School of Public Health, Boston, Massachusetts, USA
4Columbia University School of Public Health, New York, New York, USA
5University of Illinois at Urbana-Champaign, Urbana, Illinois, USA
6University of Illinois, Champaign, Illinois, USA

Early life environment is a crucial time, as many biologic processes are developing. Exposure to childhood maltreatment (CM) significantly increases the risk for PTSD later in life. Despite this risk, few studies have examined the epigenetic impact of both CM and PTSD. We therefore propose to take a systems-biology approach to examine the blood-derived DNA methylation profiles associated with CM and PTSD to better describe the biologic networks associated with these exposures. Participants (N=152) from the Detroit Neighborhood Health Study, a longitudinal epidemiologic population-based study of adult Detroit residents, were selected for testing via Illumina’s HM450 BeadChip. Trauma exposure, PTSD and CM histories were collected via structured telephone interviews. Data was analyzed in R, controlling for age, sex, race, and CM (PTSD analyses) or PTSD (CM analyses). Weighted gene co-expression network analysis will be used to detect gene networks associated with CM and PTSD, respectively. Gene enrichment will be determined using GO.db. Results for CM and PTSD will be discussed separately and compared for similarity between epigenetic profiles. The potential functional effect of significant profiles will be examined in a subset of participants (n=63) for whom gene expression data is available. This work will contribute to our understanding of the biologic impact of CM and PTSD.
The amygdala is a stress sensitive structure involved in encoding implicit emotional memories and in threat detection and response. In animal models stress stimulates dendritic arborization leading to an increase in amygdala volume. However, the relationship between childhood maltreatment (CM) and amygdala volume is remarkably inconsistent with 8 studies showing a significant reduction, 13 reporting no difference and 5 reporting a significant increase. One possibility is that early exposure to CM may lead to an initial increase in volume that is particularly noticeable during childhood. However, early exposure may in turn sensitize the amygdala to later stress and result in substantial volume loss. We tested this hypothesis in 300 subjects (61% female, 18-25 years of age) by assessing if there was a significant interaction between degree of CM from 1-11 years and from 12-15 years. High exposure to CM between 1-11 years was associated with increased volume but only in subjects with low levels of subsequent exposure. In contrast, there was a graded reduction in bilateral amygdala volume with exposure between ages 12-15 but only in subject who experienced high levels of CM between 1-11 years (F1,290 = 7.99, p = 0.005). The interplay between early and later exposure may provide a good explanation for between-study variability in effects of CM on amygdala volume.

Oral Paper Presentations
Thursday, November 10
1:15 PM to 2:30 PM
Houston Ballroom C

Treatment One Paper Session

Sustainability of Cognitive Processing Therapy for PTSD 2.5 Years after its Implementation Across National Mental Health Service for Veterans
(Practice, Commun-Train/Ed/Dis-Mil/Vets, Prof, M, Industrialized)

Couineau, Anne-Laure, MA1; Kartal, Dzenana, PhD Candidate1; Lloyd, Delyth, MA1; Nixon, Reginald, PhD2; Wade, Darryl, PhD1; Forbes, David, PhD1

1Phoenix Australia: Centre for Posttraumatic Mental Health: The University of Melbourne, Carlton, Victoria, Australia
2Flinders University, School of Psychology, Adelaide, South Australia, Australia

This project evaluates the long-term impact of promoting the adoption of Cognitive Processing Therapy (CPT) for treatment of Posttraumatic Stress Disorder (PTSD) through a systematic implementation process delivered nationally across veterans’ community-based mental health service in Australia. A mixed method approach was used to assess the organisational and individual mechanisms of change (i.e., staff surveys, service system client data and end of treatment summaries). Two and a half years after implementation, findings indicated greater organisational focus and leadership support for evidence-based treatments (EBT). Staff reported high levels of confidence in the use and application of CPT for PTSD symptoms. Evidence based treatments (EBT) for PTSD were used less often than non-EBP treatments. Nonetheless, statistically significant and clinically large improvements on self-reported PTSD were identified for clients receiving CPT. While additional data is being collected, future analyses will present a snapshot of how CPT has been modified and delivered to suitable clients, considering the influence of drop-out rates and protocol modifications. This project will inform research, policy and workforce training decision on the best practice approach to long-term sustained
adoption and delivery of evidence-based psychological treatment.

**A Naturalistic Evaluation of Evidence-Based Treatment for Veterans with Posttraumatic Stress Disorder**  
(Clin Res, Clinical Practice-Complex-Mil/Vets, Adult, I, Industrialized)

**Doran, Jennifer, PhD**1; DeViva, Jason, PhD2  
1VA Connecticut Health Care System, West Haven, Connecticut, USA  
2VA Connecticut Healthcare System and Yale University, West Haven, Connecticut, USA

The results of a naturalistic evaluation of veterans diagnosed with PTSD in a New England Veterans Affairs Medical Center (VAMC) will be presented. The aim of the study was to examine a broad range of factors associated with evidence-based treatment (Cognitive Processing Therapy and Prolonged Exposure Therapy) utilization and completion in an ecologically valid clinic setting. A chart review methodology (N=130) was used to identify both quantitative and qualitative factors associated with these dependent variables. Predictor variables included demographic and diagnostic categories, military factors, trauma exposure and treatment characteristics (e.g. veteran choice, delay between referral and start of therapy, adjunctive care, EBT protocol adherence), and several qualitative themes that were created using the Consensual Qualitative Research paradigm (e.g. skepticism about treatment, poor compliance, therapist flexibility). Regression models were run to examine the relationships between the variables. Results indicated that treatment completers were significantly more likely to report single-event traumas, start EBTs sooner after referral, have no service connection for psychiatric disability, elect to engage in an EBT when presented with treatment choices, and have therapists who closely adhered to the manualized protocols. Clinical implications will be discussed.

**Predictors of Reengagement in Psychotherapy among Veterans with PTSD**  
(Clin Res, Pub Health-Mil/Vets, Adult, M, Industrialized)

**Buchholz, Katherine, PhD**; Bohnert, Kipling, PhD; Pfeiffer, Paul, MD; Ganoczy, Dara, MPH; Sripada, Rebecca, PhD  
1VA Ann Arbor Health Care System/University of Michigan Medical School, Ann Arbor, Michigan, USA

Previous research suggests low rates of treatment engagement and retention in VA PTSD clinical teams (PCTs). Approximately two-thirds of veterans drop out before receiving a minimally adequate dose of treatment in the six to twelve months following a PTSD diagnosis (Lu et al., 2011; Spoont et al., 2010). Despite high rates of treatment dropout, some veterans return to treatment. The current study used National VA administrative data to examine reengagement in PCT therapy. Data was obtained for veterans diagnosed with PTSD in 2008-2009. Veterans who attended 1-5 psychotherapy sessions in a PCT (N=24,492) within a year of diagnosis were categorized as therapy dropouts. They were then followed for five years. The veterans who reengaged in PCT treatment within five years (N=10,007) averaged 1.18 (SD=1.00) years between treatment episodes. 26.4% eventually completed minimally adequate care. In adjusted logistic regression analyses, veterans who were over the age of 35 (OR=1.5), male (OR=.79), non-white (OR=1.12), of Hispanic ethnicity (OR=1.24), receiving group therapy (OR=1.56), or had a comorbid substance use diagnosis (OR=1.17) had higher odds of receiving a minimally adequate dose of treatment after reengagement. Additionally, a case-controlled analysis will examine factors related to reengagement in a PCT.

**Examining Dose-Response in Outpatient Psychotherapy among Active Duty Army Service Members Being Treated for PTSD Symptoms: A Multilevel Modeling Approach**  
(PRACTICE, Clin Res-Res Meth-Mil/Vets, Adult, M, Industrialized)

**Hoyt, Tim, PhD**; **Edwards-Stewart, Amanda, PhD**  
National Center for Telehealth & Technology, Tacoma, Washington, USA

Objective: There have been several recent calls in the literature for greater attention to psychotherapy dose-response. This study evaluated the course of treatment among 671 active duty Army service...
members in routine outpatient care for PTSD. Method: Participants were included in the study based on a screening score of 50 or higher on the PTSD checklist at intake. Participants subsequently completed the PTSD checklist at periodic intervals during care enrollment. A multilevel model predicting PTSD checklist score was constructed with total number of sessions, current number of sessions, and days between sessions as predictor variables, controlling for intake PTSD checklist scores. Results: Total number of sessions received was a significant predictor in the model, with a greater total number of sessions predicting higher scores on the PTSD checklist. Current number of sessions also was a significant predictor in the model, with scores on the PTSD checklist decreasing over the course of care. Duration of time between sessions did not significantly predict PTSD checklist scores. A significant quadratic effect was identified, with scores initially increasing and then subsequently decreasing. Conclusions: These results indicate that current and total psychotherapy dose may be more salient factors than session frequency in predicting the dose-response of psychotherapy for PTSD.
CONCURRENT SESSION THREE

Master Clinician
Thursday, November 10
2:45 PM to 4:00 PM
San Antonio Ballroom A

Master Clinician: Competent Parenting: The Key to Preventing Social, Emotional and Behavioural Problems in Children of Trauma Related Adversity
(Practice, CPA-Fam/Int, Lifespan, M, Global)

Sanders, Matthew, PhD
University of Queensland, Brisbane, Queensland, Australia

There is nothing more important in promoting the healthy development and wellbeing of children than the quality of parenting a child receives regardless of their life circumstances. Competent parenting is the key to preventing child social, emotional and behavioural problems because it provides a common pathway to confident, resilient and skilled children. From single-subject research in the early 1980s that investigated individually administered parenting programs to a widely disseminated public health approach that has impacted millions of families worldwide, Triple P has evolved an array of evidence-based interventions designed to overcome a diverse range of clinical problems affecting families every day. This need for flexibility has inspired the more recent innovation work investigating how the Triple P system can be applied to trauma related adversity. The difficulties faced and lessons learned through implementing a large-scale evidence-based parenting program across diverse communities will be discussed.

Symposium
Thursday, November 10
2:45 PM to 4:00 PM
Dallas A1

Creating a Trauma-informed Health Care System for Children: Global Data on Needs and Training Models
(Train/Ed/Dis, Acute-Illness-Prevent-Pub Health, Other, M, Global)

Kassam-Adams, Nancy, PhD
University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA

In addition to mental health treatment, addressing the population-level impact of child trauma exposure requires that we incorporate a trauma-informed approach within other systems which regularly interact with trauma-exposed children. Medical settings offer the opportunity to reach children exposed to injury, illness, and other potentially traumatic events. A trauma-informed health care setting can minimize the potential for additional traumatic stressors associated with medical care, facilitate screening and preventive care, and integrate attention to both psychosocial and physical health outcomes. However, current training of health care professionals does not always prepare them to provide high quality trauma-informed services. This symposium brings together studies from several countries regarding health care providers’ current knowledge and practice of trauma-informed care, and models for training existing health care teams. Dr. Alisic will describe two worldwide surveys of health care providers. Dr. Marsac will present data from a hospital-wide effort to train staff in trauma-informed care. Dr. Kassam-Adams will describe integration of trauma-informed care in simulation-based quality improvement in emergency medicine, and Dr. Rodriguez Rey will present data on medical staff stress with implications for self-care as part of building a trauma-informed organization.
Worldwide Surveys on Trauma-Informed Care for Children - Current Knowledge and Training Needs of Emergency Care Providers  

Alisic, Eva, PhD¹; Kassam-Adams, Nancy, PhD²; Tyler, Mark, BSc Hons Psychology³; Hoysted, Claire, BSc Hons Psychology¹; Landolt, Markus, PhD⁴  
¹Monash University, Melbourne, Victoria, Australia  
²Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA  
³La Trobe University, Bundoora, Victoria, Australia  
⁴University of Zurich, Zurich, Switzerland  

Pre-hospital and hospital emergency providers can play a crucial role in ensuring trauma-informed care for injured children and their families. We aimed to assess providers’ trauma-informed care capacity in terms of knowledge, confidence levels and training needs, informed by Psychological First Aid (PFA) and Distress-Emotional Support-Family (DEF) protocols. A total of 3478 ambulance and hospital Emergency Department (ED) staff from 87 countries participated in two online surveys. Knowledge levels were moderate, and associated with several predictors including amount of exposure to child patients (e.g. higher levels of knowledge for those working in pediatric EDs as opposed to mixed EDs) but not general experience. Confidence levels were moderate to high, with lower confidence reported for elements of care that were more trauma-specific (e.g. psychoeducation, in contrast to e.g. explaining procedures in child friendly language). In both surveys, approximately 90% of the respondents wished to receive more training. Training preferences included interactive online training and in-person group training. We discuss the implications for the development and distribution of existing and novel training modalities to facilitate trauma-informed care.

Bringing Trauma-informed Care to a Pediatric Hospital: Results of a Program of Staff Training  
(Prevent, Acc/Inj-Acute-Health-Illness, Medical Professionals, M, Industrialized)  

Marsac, Meghan, PhD¹; Weiss, Danielle, MS²; Murray, Carol, MSW³; Kohser, Kristen, MSW²; Winston, Flaura, MD, PhD²; Fein, Joel, MD MPH¹; Kassam-Adams, Nancy, PhD¹  
¹University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA  
²Children’s Hospital of Philadelphia, Philadelphia, Pennsylvania, USA  
³Center for Injury Research & Prevention, Children’s Hospital of Philadelphia, Philadelphia, Pennsylvania, USA  

Due to the high prevalence of significant posttraumatic stress reactions among children and their families undergoing medical treatment, and the physical and psychosocial consequences of these reactions, standard medical practice needs to include a consideration of the interrelationships between emotional and physical health to optimize child outcomes. The present investigation evaluated the initial application of a recently published framework for implementing trauma-informed care (TIC) in a pediatric healthcare network. The proximal goals of the initial TIC training were to increase favorable attitudes towards the integration of trauma-informed approaches into care and to improve professionals’ confidence in the delivery of TIC. 440 medical professionals participated in TIC training. Trainings focused on understanding the impact of trauma, identifying symptoms of trauma, and responding to children who have been exposed to trauma. Post training, significant increases were identified for attitude towards TIC, t(293)=5.8, p < .01, Cohen’s d=.32, and confidence in delivering TIC, t(293)=20.9, p < .01, Cohen’s d = 1.09. Trainings were well-received with a number of staff describing how implementing TIC changes their patient care. Findings demonstrate the feasibility and relevance of this framework as a means to assist medical teams’ delivery of trauma-informed medical care.
Integrating Trauma-Informed Pediatric Care into Simulation-Based Assessment and Training in the Emergency Medical Setting
(Train/Ed/Dis, Acc/Inj-Acute-Illness, Healthcare Professionals, M, Industrialized)

Kassam-Adams, Nancy, PhD¹; Auerbach, Marc, MD, MsC²; Butler, Lucas, BS⁰; Nadkarni, Vinay, MD, MS¹
¹University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
²Yale University School of Medicine, New Haven, Connecticut, USA

For pediatric patients and families, sudden, time-critical medical procedures are extremely stressful and put them at risk for psychological sequelae. Trauma-informed care (minimizing frightening aspects of treatment, attending to pain and emotional distress) can reduce PTSD risk, but is a particular challenge during acute medical care when there are many competing priorities for the medical team’s attention and focus. In emergency medicine, simulation-based methods are widely used for quality improvement (QI) of complex interventions - medical teams respond in real time to realistic time-critical medical situations with high-fidelity mannequins as “patients” and actors as “parents”. We are harnessing these methods to integrate trauma-informed care into ongoing QI in emergency medical settings. Our multi-disciplinary team first identified observable behaviors relevant to trauma-informed care during acute procedures, based on evidence and best practice guidelines. We refined these metrics via video review of 26 simulated pediatric resuscitation scenarios and interviews with providers and parents. Next steps are to use these tools to help medical teams benchmark current practice, guide post-simulation review, and identify targeted training needs. Simulation-based QI appears to be a promising method to assess and improve trauma-informed care during pediatric emergency care.

Predicting Factors and Consequences of Distress and Posttraumatic Growth in Pediatric Intensive Care Professionals.
(Self-Care, Illness-QoL-Prevent-Train/Ed/Dis, Pediatric Staff (physicians and nurses), M, Industrialized)

Rodriguez Rey, Rocio, PhD Candidate¹; Palacios, Alba, MD¹; Alonso-Tapia, Jesus, PhD¹; Cruz, Jaime, MD²; Kassam-Adams, Nancy, PhD²; Marsac, Meghan, PhD²
¹Universidad Autónoma de Madrid, Spain
²University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA

Professionals working in Pediatric Intensive Care Units (PICUs) are prone to develop burnout and posttraumatic stress disorder (PTSD). However, work-related trauma can also result in posttraumatic growth (PTG). Also, distress and PTG rates might affect professionals’ satisfaction with life (SWL). This study aims to study: 1) the levels of burnout, PTSD and PTG in PICU staff and workers from other pediatric units, 2) how resilience and coping contribute to predict distress and PTG, and 3) how distress and PTG affect professionals’ SWL. Participants of this multi-centric cross-sectional study were 298 workers from 9 PICUs, and 189 from other pediatric units. Of the PICU sub-sample 56% reported burnout, 20.1% PTSD and 68.8% PTG to a great or very great degree. More than 50% reported high SWL. These rates were not different for non-PICU staff. Path analyses with latent variables showed that coping and resilience predicted 30% and 11% of the variances in distress and PTG respectively. Lower distress and higher PTG scores predicted 27% of the variance in SWL. Our study shows that supporting professionals’ self-care by promoting resilience and adaptive coping strategies, might report in lower distress, and higher PTG and SWL. Consequently these interventions should be part of a "trauma-informed" organization.
Symposium
Thursday, November 10
2:45 PM to 4:00 PM
Dallas A2

Trauma and Public Health Intervention: Is On-Line the Best Mainline?
(Pub Health, Cul Div-Pub Health-Tech-Gender, Lifespan, M, Global)

Hobfoll, Stevan, PhD
Rush Medical College, Chicago, Illinois, USA

A public health approach to trauma demands casting a broad target net. We examine strategies for on-line intervention among trauma and major stress-exposed populations. We present findings from novel prevention and intervention programs aimed at vulnerable populations. We explore the advantages, disadvantages and appropriate placement of on-line interventions, as an added tool for intervention strategy. Clear advantages include the potential scalability of on-line interventions, the ability to get prepared interventions out with immediacy following mass casualty, and accessing groups who are stigmatized or unable to engage in-person services. However, clinical control, legal restrictions, and the potential for superficiality of both programs and user behavior must be considered. Novel research approaches will be explored and findings from several clinical trials will be presented for homeless youth, following school shootings, and veterans. Finally, it is critical that the fascination with scale and technology not overstep sound theory-based programming and clinical depth and breadth.

On-Line Intervention for Veterans Using Gamelike Technology
(Prevent, Illness-Pub Health-Tech-Mil/Vets, Adult, M, Industrialized)

Hobfoll, Stevan, PhD1; Stevens, Natalie, PhD2; Blais, Rebecca, PhD3
1Rush Medical College, Chicago, Illinois, USA
2Rush University Medical Center, Chicago, Illinois, USA
3Department of Veterans Affairs, Puget Sound Health Care System, Seattle, Washington, USA

Despite prevalence rates between 11.5%-18.0% for PTSD and between 14.2%-15.2% for depression among Iraq/Afghanistan Veterans, the majority of distressed Veterans will not seek or receive mental health care. We tested a game-like, interactive online cognitive-behavioral therapy--Vets Prevail--intervention for PTSD and depression. In a randomized clinical trial of mildly-to-moderately distressed Veterans, the efficacy of Vets Prevail (n=209) was compared to adjustment-as-usual (AAU; n =94). Compared to the AAU condition, Veterans in the Vets Prevail condition reported significantly lower PTSD and depressive symptoms at 6- and 12-week follow-up assessments, with small-to-medium effect sizes. Gains also translated to reductions in physical illness and injury-related pain and functioning. Effect sizes were similar to those found for face-to-face therapies that cost up to 250 times more. Vets Prevail is equally effective for those with high combat trauma exposure, for men and women, and for ethnic minority Veterans. Vets Prevail may circumvent many barriers to care and effectively address the dire mental health needs of Veterans.

Deployment of My Trauma Recovery for the Planned Parenthood Shooting: A Public Health Cyber Approach
(Pub Health, Comm/Vio-Tech, Adult, M, Industrialized)

Benight, Charles, PhD
University of Colorado at Colorado Springs, Colorado Springs, Colorado, USA

On November 27, 2015 a gunman attacked Planned Parenthood in Colorado Springs, CO, killing 3 and injuring many others. The My Trauma Recovery website is a stand-alone support system designed to empower survivors of trauma in their recovery. The site was deployed as a community resource on January 25, 2016. The site was designed based on theoretically and empirically based mechanisms from Social Cognitive Theory (Benight & Bandura, 2004). The site has received empirical support within natural disaster and traumatic stress contexts (Steinmetz et al., 2012; Wang, Wang, & Maercker, 2014). Pikespeakstrong.com was deployed through cooperation with the local response coordinated through the Colorado Springs Police department. The website was customized with a new name, emergency contact information, and a landing page banner linking it to the local community response. A public health approach was utilized offering the resource to the entire community through multi-
channel media outlets (print, radio, television). This paper reports on the utilization of the site including total number of site hits (398), unique visitors (365), page visits (1544), user engagement, bounce rates (54%), module depth/focus, and identification of factors related to uptake across time. Implications for public health technological approaches to empower trauma survivors will be addressed.

Providing Brief Cognitive-Behavioral Interventions to Abused Homeless Youth via Mobile Technology
(Tech, CPA-CSA-Clin Res-Commun, Adult, M, N/A)

Zalta, Alyson, PhD; Dowdle, Claire, PsyD; Glover, Angela, BA; Schueller, Stephen, PhD; Karnik, Niranjan, MD, PhD
1Rush University Medical Center, Chicago, Illinois, USA
2Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA

Child abuse is associated with an increased risk for homelessness and psychopathology. Once homeless, individuals face significant barriers to mental health care. Mobile technology may offer a novel platform for increasing access to care. In our ongoing study, sheltered homeless youth (age 18-23) with a history of physical or sexual abuse are given a smartphone to communicate with a study therapist and access other therapy support tools (apps and tips). Over one month, youth are offered three 30-minute therapy sessions and the opportunity to contact the therapist outside of sessions via phone and text. The therapist has access to a web portal that displays information collected via the apps, affording the opportunity to tailor outreach to participants’ current needs and issues. This mobile platform also allows us to collect ongoing information about participants including their daily sleep and stress as well as their use and impression of the platform (e.g., contact with the therapist, ratings of daily tips). Participant characteristics to date suggest that this is a multiply traumatized population with high rates of psychopathology. Participant engagement and feedback on the program, phone usage data, pre-post changes in psychological symptoms, and lessons learned from delivering telehealth interventions to homeless youth will be described in this presentation.

Mobile Monitoring of PTSD Symptoms Shortly After a Trauma: A Pilot Study
(Tech, Acc/Inj-Prevent-Tech, Adult, M, Industrialized)

Price, Matthew, PhD; van Stolk-Cooke, Katherine, BS, BA; Ward, Hannah, BA
University of Vermont, Burlington, Vermont, USA

Trauma exposure markedly increases risk for psychopathology including posttraumatic stress disorder (PTSD). Understanding the development of PTSD after a traumatic event is critical to enhancing early intervention. Relatively few studies have explored the course of symptoms in the acute post-trauma period; defined as the 30 days immediately after a traumatic event. A key challenge to conducting such studies is the efficient means to collect data that does not impose significant burden to the participant and is easily scalable. The present study evaluated the feasibility of collecting data during the first 30 days after a traumatic event using a mobile phone application. Data was obtained from 23 individuals recruited from the Emergency Department of a Level 1 Trauma Center who experienced a Criterion A traumatic event. Participants completed an 44.93% of daily assessments across a 30-day period. Responses rates were uncorrelated with PTSD symptoms or depression symptoms at 1-month and 3-month posttrauma. Participants reported that the surveys were moderately helpful and posed minimal burden. These findings suggest that mobile applications can be used to efficiently to learn about the course of post-trauma recovery. PTSD symptoms varied considerably during the 30 days post-trauma, which has important implications for the development and dissemination of early interventions.
Symposium
Thursday, November 10
2:45 PM to 4:00 PM
Dallas D1

The Effects of Stress and Sex Hormones on Mechanisms of Posttraumatic Stress Disorder
(Bio Med, Bio Med-Bio/Int, Adult, M, Industrialized)

Felmingham, Kim, PhD
University of Tasmania, Hobart, Tasmania, Australia

Increasing animal and human evidence highlights a critical role of stress and sex hormones in mechanisms underlying PTSD, including emotional memory consolidation, fear extinction learning and extinction retention. This symposium brings together novel human findings which provide important new insights into the roles of stress and sex hormones in these processes. Two experimental studies will be presented examining the roles of stress and sex hormones on negative intrusive memories: one study reveals an important role of progesterone and visual imagery capacity in predicting negative intrusions, and a second study reveals that estrogen moderates the influence of noradrenaline and cortisol on intrusive memories specifically in traumatized relative to non-traumatized groups. Two studies examine the effects of stress and sex hormones on fear extinction processes, with one study revealing that the relationship between PTSD symptoms and impaired fear extinction is moderated by noradrenaline level, and a second study demonstrates that women with PTSD display lower allopregnanolone/progesterone ratios which predict poorer fear extinction retention. These findings extend our current understanding of the biological mechanisms underlying PTSD, and lay the groundwork for potential future treatment.

Sex Hormones, Imagery, and Emotional Memories
(Bio Med, Bio/Int, Adult, M, Industrialized)

Bryant, Richard, PhD1; Felmingham, Kim, PhD2
1University of New South Wales, Sydney, New South Wales, Australia
2University of Tasmania, Hobart, Tasmania, Australia

Research suggest that the consolidation of emotional memories is influenced by (a) endogenous levels of sex hormones, and (b) individual differences in the capacity to use vivid mental imagery. Study 1 investigated how these factors may interact to influence emotional memories. The sample included men, women from the follicular phase, and women from the mid-luteal phase were assessed on mental imagery, shown a series of aversive and neutral images, and 2 days later did a free recall test. The interaction of progesterone and mental imagery strength significantly predicted recall of visually-processed, but not verbally-processed, negative images. Study 2 disrupted the consolidation of memories by visual or verbal tasks in follicular or mid-luteal women. Results showed that disruption of imagery via competition for visuospatial processing resources contributed to fewer intrusions in mid-luteal females but not follicular females. These findings underscore the critical role of sex hormones and the interaction with the visual memory system in emotional memories.

Neurobiological Mechanisms of Menstrual Cycle Effects on Extinction Retention among Women with and without PTSD
(Bio Med, Bio/Int-Gender, Adult, M, Industrialized)

Pineles, Suzanne, PhD1; Irvine, John, PhD2; Webb, Andrea, PhD2; Nillni, Yael, PhD3; Resick, Patricia, PhD, ABPP4; Orr, Scott, PhD5; Rasmusson, Ann, MD6
1National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA
2Charles Stark Draper Laboratories, Inc., Cambridge, Massachusetts, USA
3National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
4Duke University Medical Center, Durham, North Carolina, USA
5Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
6VA, Boston, Massachusetts, USA

Menstrual phase or gonadal hormones have been found to influence the retention of extinction learning in both humans and animals. However, the effects of menstrual phase on extinction retention appear to differ for women with and without PTSD. Specifically, women with PTSD demonstrate poorer
Elevated Baseline Noradrenaline Interacts with Impaired Fear Extinction in PTSD

Elevated Baseline Noradrenaline Interacts with Impaired Fear Extinction in PTSD


Zuj, Daniel, PhD Candidate; Palmer, Matt, BA (Hons), PhD; Felmingham, Kim, PhD

University of Tasmania, Hobart, Tasmania, Australia

PTSD is associated with hyperactive noradrenergic stress responding, and ongoing conditioned fear responses during extinction learning. Research has not yet looked at the association between naturally cycling noradrenaline and fear extinction in PTSD. In the present study, 77 participants with PTSD (n = 17), trauma exposure without PTSD (n = 35), or no trauma exposure (n = 25) underwent a one-day standardized differential fear conditioning and extinction paradigm with a mild electric shock as the unconditioned stimulus. Responses were measured via skin conductance response (SCR) and self-report UCS-expectancy. Saliva samples were collected at baseline and post-fear acquisition, and PTSD symptoms were obtained via the PTSD Checklist. Moderated-mediation analyses revealed that increased PTSD symptoms were associated with significantly poorer fear extinction learning if participants presented with higher baseline noradrenaline levels. Further, the link between trauma exposure and PTSD symptoms was mediated by this interaction. These results extend previous findings by showing that fear extinction impairments are related to increased PTSD symptoms, particularly in individuals with elevated baseline noradrenaline.

Sex Hormones Moderate the Relationship between Stress Hormones and Negative Intrusive Memories Following Trauma

Felmingham, Kim, PhD; Zuj, Daniel, PhD

Candidate; Nicholson, Emma, BSc Hons Psychology; Chia Ming Hsu, Ken, MPsy

University of Tasmania, Hobart, Tasmania, Australia

Negative intrusive memories are a core feature of PTSD. Animal and human evidence has revealed a role of stress hormones (noradrenaline and cortisol) in influencing emotional memory consolidation and negative intrusions (Roozendaal et al., 2009; Felmingham et al., 2012; Nicholson et al., 2014). Increasing evidence reveals an effect of sex hormones on negative intrusive memories (Cheung et al., 2013; Soni et al., 2015), but the interactive effects of sex and stress hormones on intrusions have not been examined. This study examined the moderating role of sex hormones on the relationship between stress hormones, group status and negative intrusions in a sample of PTSD, trauma-exposed controls, and non-trauma exposed controls. Using a moderated moderation analysis, it was found that noradrenaline and cortisol predicted distress associated with negative intrusions in the trauma-exposed and PTSD groups only, but this was significantly moderated by estrogen level. Specifically, increased noradrenaline and cortisol predicted distress to negative intrusions in the PTSD and trauma-exposed groups that were characterised by low levels of estrogen. This study reveals an important interactive role of sex and stress hormones on negative intrusive memories specifically in trauma-exposed individuals.
Symposium
Thursday, November 10
2:45 PM to 4:00 PM
Dallas D3

Posttraumatic Dissociation: Intergroup and Interindividual Variability, Impact on Treatment, and Brief Assessment
(Clin Res, Assess Dx-Clin Res, Adult, M, Industrialized)

Carlson, Eve, PhD
National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA

A considerable body of research has indicated that dissociation is a common response to traumatic stress, and dissociative symptoms are now specified in the DSM-5 diagnostic criteria for ASD, PTSD, and a dissociative subtype of PTSD. To enhance our understanding of dissociation in the trauma response, research must address complex questions about these symptoms and expand measurement of dissociation into more clinical and research contexts. The first two presentations address questions about the constructs of depersonalization, derealization, gaps in awareness and memory, cognitive and behavioral re-experiencing, and sensory misperceptions that we collectively label dissociation. To what degree are the factors underlying a measure of dissociation invariant across ethnicities? Do dissociative symptoms cluster together differently across individuals independent of PTSD symptoms? The second two presentations address questions related to practical application of dissociation measurement. Does dissociation occurring during treatment sessions interfere with treatment response? Can a relatively brief measure of dissociation assess symptoms and a dissociative subtype comparably to a longer measure?

The Structure of the Dissociation Symptoms Scale across Race and Ethnicity: A Test of Measurement Invariance Using Latent Class Analysis in a Non-clinical Sample
(Assess Dx, Clin Res-Cul Div-Ethnic, Adult, M, Industrialized)

Anglin, Deidre, PhD; Carlson, Eve, PhD; Espinosa, Adriana, PhD; Waelde, Lynn, PhD; Polanco-Roman, Lillian, MA PhD Student; Macia, Kathryn, BS; Palmieri, Patrick, PhD; Smith, Steve, PhD
1City College of the City University of New York, New York, New York, USA
2National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
3CUNY-The City College of New York, New York, New York, USA
4Palo Alto University, Palo Alto, California, USA
5Center for the Treatment and Study of Traumatic Stress, Summa Health System, Akron, Ohio, USA
6Palo Alto University, Los Altos, California, USA

Research suggests the expression of dissociative symptoms varies across cultures in normative populations. For example, some cultural groups may be more likely to dissociate for spiritual purposes and less likely to dissociate in response to trauma. Considering that the conceptualization of dissociation may be culturally determined, the present study examined whether a recently developed Dissociation Symptoms Scale (DSS) is invariant across racial and ethnic groups by using multiple-group latent class analysis. Merged data (N=1810) from 5 independent samples of non-clinical adults was used to group participants by minority status (2 groups). The minority status group model revealed the same 3 latent classes best fit the DSS in both groups. Measurement invariance however, was not confirmed (Difference in Chi-Sq(240) = 492.5, p = 0.00). LCA was then run within each racial/ethnic group (i.e., Black, White, Asian, Hispanic, Other) individually, which yielded slight variations in the number of latent classes (e.g., Whites fit a 2-class model and Blacks a 3-class model) as well as in the distribution of posterior probabilities. These results suggest the DSS may produce varying dissociative symptom categories across different cultural groups in non-clinical populations, but more robust assessment of these categories should be explored, especially in...
Heterogeneity in Manifestations of Dissociation across Individuals from Diverse Clinical and Non-Clinical Samples
(Assess Dx, Cul Div-Theory, Adult, M, Industrialized)

Macia, Kathryn, PhD Student¹; Carlson, Eve, PhD²; Waelde, Lynn, PhD³; Palmieri, Patrick, PhD⁴
¹Palo Alto University, Palo Alto, California, USA
²National Center for PTSD-Dissimination and Training Division, Menlo Park, California, USA
³Center for the Treatment and Study of Traumatic Stress, Summa Health System, Akron, Ohio, USA

Research has begun to examine the dissociative subtype of PTSD, but it has not yet examined whether dissociative symptoms cluster together differently across individuals independent of PTSD symptoms. Research on possible differences in the dimensionality and core symptoms of dissociation across individuals may clarify why dissociative symptoms differ among those with PTSD. Using a combined dataset of homeless veterans (N = 147), caretakers of children who experienced interpersonal trauma (N = 248), and samples used to develop the Dissociative Symptoms Scale (N = 1600), we conducted a Bayesian mixture of factors (1-4 factors) analysis. The dissociative experiences of most individuals were best characterized by 3 factors (3F) representing depersonalization/derealization, re-experiencing with gaps in attention, and memory disruption. A unidimensional (1F) structure most strongly characterized by sensory misperceptions was identified as best for most other individuals. Individuals with a 1F structure had more severe dissociation overall, were more likely to have experienced childhood and interpersonal trauma, and have probable PTSD, yet a sizeable proportion of individuals with a 3F structure also experienced these types of trauma and had probable PTSD. Overall, findings suggest heterogeneity in the manifestation of dissociation across individuals, including those with PTSD.

Dissociation during Psychotherapeutic Sessions Jeopardizes Successful Exposure-Based Treatment of PTSD
(Clin Res, CSA, Adult, M, Industrialized)

Kleindienst, Nikolaus, PhD
¹Central Institute of Mental Health, Dept. of Psychosomatic Medicine, Mannheim, Germany

Background: A new meta-analysis confirms that PTSD patients score extremely high on the Dissociative Experience Scale (results presented in this talk). In theory, dissociation should interfere with successful treatment of PTSD. However, empirical findings are mixed. We supposed that the negative impact of dissociation on treatment success emerges when assessed as state dissociation during psychotherapeutic sessions. Methods: The data originate from a randomized controlled trial for PTSD related to childhood sexual abuse (n=74) which established efficacy of a new treatment (DBT-PTSD) integrating exposure techniques into Dialectical Behavior Therapy. Multilevel analysis accounting for major confounders were used to relate pre-post improvements to (a) trait dissociation assessed at baseline and (b) state dissociation assessed after each treatment session. Results: The level of state dissociation during psychotherapeutic sessions was inversely related to improvement after DBT-PTSD as assessed by the Clinician Administered PTSD Scale (CAPS). The variance explained by the level of state dissociation while controlling for major confounders (partial r-square) was as high as 43%. Conclusion: Dissociation during treatment sessions jeopardizes success with trauma-focussed therapies such as DBT-PTSD. We recommend closely monitoring dissociation when treating PTSD-patients.

Development and Validation of a Short Form of the Dissociative Symptoms Scale
(Assess Dx, Assess Dx-Clin Res, Adult, M, Industrialized)

Waelde, Lynn, PhD¹; Macia, Kathryn, BS¹; Carlson, Eve, PhD²; Anglin, Deidre, PhD³; Palmieri, Patrick, PhD⁴
¹Palo Alto University, Palo Alto, California, USA
²National Center for PTSD-Dissimination and Training Division, Menlo Park, California, USA
³City College of the City University of New York,
The addition of the dissociative subtype to the DSM-5 PTSD diagnosis has intensified interest in dissociation assessment. This paper describes the development and evaluation of a short form of the Dissociative Symptoms Scale (DSS-B) using data from seven independent samples of adults. Item response theory (IRT) analysis conducted on a split half of the DSS development data (DSS-DD; N = 800) selected seven items based on item discrimination, peak information, and range of severity the item assessed. To investigate the utility of the DSS-B for assessing the dissociative subtype, we conducted latent class analysis (LCA) on all DSS items and on the DSS-B items using individuals with probable PTSD (N = 366) from the second half of the DSS-DD and a sample of caretakers of children who experienced interpersonal trauma. LCAs of DSS and DSS-B identified almost all of the same individuals. The DSS-B correlated strongly with the full DSS in each sample (r = .92 -.97), moderately with PTSD and depression and at a low level with general psychopathology. Internal reliability of the DSS-B was strong (alpha = .73 -.88). Results suggest that the DSS-B may be a useful screener for the dissociative subtype.

Panel Presentation
Thursday, November 10
2:45 PM to 4:00 PM
Dallas D2
Public-Private Partnerships in Service to Veterans and their Families
(Commun, Fam/Int-Pub Health-Social-Mil/Vets, Lifespan, M, Industrialized)

Kudler, Harold, MD1; Bellehsen, Mayer, PhD2; Tanielian, Terri, MA3; Thomesen, Charlene, MD3
1USA Department of Veterans Affairs, Washington, District of Columbia, USA
2NorthShore University HealthSystem, Bay Shore, New York, USA
3RAND Corporation, Arlington, Virginia, USA

This panel will discuss current and potential roles for public-private partnerships in behavioral health to improve access to care and treatment outcomes for US Military Veterans and family members who are struggling with negative health consequences of military service such as PTSD. Recent research suggests that partnerships between the Veterans Health Administration (VHA) and the private sector may offer a means to expand care to Veteran families (Pedersen et al., 2015). Presenters will discuss treatment barriers and gaps which hinder recovery and explore innovative models for partnership that may help overcome these obstacles. The Unified Behavioral Health Center will be examined as a model partnership for consideration. Perspectives on the challenges and successes of partnership will be offered from both the VHA and private sector. Data from an independent, mixed method RAND Corporation evaluation of this Center will be presented including findings from a process analysis of the model and analysis of treatment outcomes. Key findings will be highlighted and consensus recommendations formulated regarding the optimal forms for the development of future partnerships and components necessary to their success.

Workshop Presentation
Thursday, November 10
2:45 PM to 4:00 PM
Dallas A3
The Challenge and Opportunity of Treatment of Children and Caregivers When Both Have Traumatic Stress
(Practice, Chronic-Complex-Fam/Int-Intergen, Lifespan, M, Industrialized)

Kagan, Richard, PhD1; Blaustein, Margaret, PhD2; Kiser, Laurel, PhD MBA3
1Parsons Child and Family Center, Albany, New York, USA
2Trauma Center at Justice Resource Institute, Brookline, Massachusetts, USA
3University of Maryland School of Medicine, Baltimore, Maryland, USA

Families interacting with public systems often have intergenerational trauma that impacts service delivery. Engaging caregivers with their own histories of trauma is a critical challenge for practitioners seeking to provide effective treatment of traumatic stress in children who have experienced multiple traumas and when children have not been
able to count on caregivers to provide safety, guidance, and nurture. This workshop will present core components and tools from three treatment models (Attachment, Regulation and Competency, Real Life Heroes, and Strengthening Family Coping Resources) that have been successful in engaging and empowering caregivers, responding to caregiver concerns, and helping caregivers to heal from their own traumatic stress as they help their children. Participants in small groups will discuss strategies for overcoming challenges and treatment recommendations applied to a case. Treatment issues addressed include: Engaging caregivers with psychoeducation that addresses intergenerational transmission of traumatic stress, how family and cultural strengths can promote healing, and the power of caregivers to help their children. Building a therapeutic alliance with caregivers that elicits caregiver resilience, Strengthening (or building) child-caregiver attachments, Developing self and co-regulation skills, Integating traumatic memories.

Workshop Presentation
Thursday, November 10
2:45 PM to 4:00 PM
San Antonio Ballroom B

Early Interventions Following Terrorist Attacks: From the Emergency Room to the Living Room
(Clin Res, Prevent-Terror, Adult, I, Industrialized)

Freedman, Sara, PhD
Bar-Ilan University, Ramat Gan, Israel

Objective: this workshop aims to provide an overview of our extensive experience of working with terrorist attack survivors in the early aftermath of the event. The literature regarding early reactions and interventions will be covered. This will focus on data describing immediate reactions to terrorist attacks, while still in the Emergency Department (ED). In addition, interventions from the first hours post-event in the ED, up to those beginning within 1-month post-trauma, will be described. These interventions will be demonstrated, both by video and role play. Over one hundred terrorist survivors brought to the ED since September 2015 as a result of stabbings and other terrorist events have been evaluated in the ED have been followed up; this data will be presented and discussed. In addition, issues such as optimal timing of interventions, the value of early interventions, delivery systems and the management of outreach and prevention following large scale terrorist attacks will be discussed.

Case Study Presentation
Thursday, November 10
2:45 PM to 4:00 PM
Houston Ballroom A

Addressing Trauma and Attachment Loss in African Orphans: A Case Study of Community-based Caregiver Training
(Global, CPA-Comm/Int-Dev/Int-Fam/Int, Lifespan, M, E & S Africa)

Penney, Patrice, MSW, LCSW
University of South Carolina, Columbia, South Carolina, USA

The orphan pandemic across sub-Saharan Africa is a social crisis of staggering proportions. Many if not most of the children orphaned have experienced not only traumatic attachment loss, but a cascade of other adverse experiences including maltreatment. While trauma treatment is not widely available, nor are there many trained treatment providers, caregivers are available: not only are they in proximity to the orphans, but if trained, are in a position to nurture them, providing attachment security, support for emotional and behavioral regulation, and support for posttraumatic growth and development. This case study will present a non-formal, Africa-based curriculum for caregiver training, which draws from attachment theory, trauma theory and interpersonal neurobiology, and borrows and repurposes interventions from Theraplay®, Dyadic Developmental Psychotherapy and the ARC framework for developing trauma-informed caregiving. The case study will share the curriculum, with a focus on its development alongside African caregivers and organizations, as well as the familial, social and cultural issues that have arisen. To date the training has been provided in collaboration with African grassroots organizations in Kenya, Lesotho, Ethiopia, Rwanda, and Sierra Leone with reports of transformed perspectives and practices around caregiving.
Oral Paper Presentations  
Thursday, November 10  
2:45 PM to 4:00 PM  
Houston Ballroom B

Predictors Paper Session

Predictors of Attrition among Children Receiving Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)  
(Clin Res, Clinical Practice-Commun-Complex, Child/Adol, I, Industrialized)

Wamser-Namney, Rachel, PhD; Steinzor, Cazzie, BA  
University of Missouri St. Louis, St. Louis, Missouri, USA

Attrition in child trauma-focused treatments such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) is common; yet, the factors of children who prematurely terminate are unknown. The aim of the current study was to identify risk factors for attrition from TF-CBT. One hundred and twenty-two children (ages 3-18; M = 9.97, SD = 3.56; 67.2% females; 50.8% Caucasian) who received TF-CBT were included in the study. Demographic and family variables, characteristics of the trauma, and caregiver- and child-reported pretreatment symptoms levels were assessed in relation to two operational definitions of attrition: 1) clinician-rated dropout, and 2) whether the child received an adequate dose of treatment (i.e., 12 or more sessions). Several demographic factors, trauma characteristics, and children’s caregiver-rated pretreatment symptom levels were related to clinician-rated dropout. Fewer factors were associated with the adequate dose definition. Child Protective Services involvement, complex trauma exposure, and child-reported pretreatment trauma symptoms were unrelated to either attrition definition. Demographics, trauma characteristics, and level of caregiver-reported symptoms may help to identify clients at risk for premature termination from TF-CBT. Clinical and research implications for different operational definitions and suggestions for future work will be presented.

Pre-deployment Cognitive Ability and the Risk of Severe PTSD-symptoms following Deployment  
(Assess Dx, Cog/Int-Mil/Vets, Adult, M, S Asia)

Sørensen, Holger, MD, PhD¹; Andersen, Søren, PhD, Cpsych²; Karstoft, Karen-Inge, PhD, Cpsych²; Madsen, Trine, PhD³  
¹Mental Health Centre Copenhagen, Hellerup, Denmark  
²Research and Knowledge Center, The Danish Veteran Center, Ringsted, Denmark  
³Copenhagen Mental Health Center, Hellerup, Denmark

Cognitive ability has been identified as a risk factor for development of PTSD following trauma. This study utilized a test of cognitive ability completed at conscription to test the role of pre-deployment cognitive abilities. 428 soldiers deployed to Afghanistan in 2009 responded to a range of questionnaires including the PTSD-Checklist before and four times after deployment. Prevalence of severe PTSD-symptoms 2.5 years after deployment was estimated and PTSD trajectories derived utilizing Latent Growth Mixture Modeling. Pre-deployment cognitive ability was tested as a predictor of PTSD-symptomatology and of resilient vs. non-resilient trajectory membership adjusting for education, pre-deployment PCL-C and war-zone stress. We found that higher pre-deployment cognitive ability score decreased the risk of severe PTSD-symptomatology 2.5 years post-deployment (OR=0.97; 95% CI 0.95-1.00). Further, members of the trajectory with highest PTSD-symptom level 2.5 years after deployment had significantly lower cognitive ability scores (mean=86.9) compared to the resilient trajectory (mean=101.4). These results suggest that pre-deployment cognitive ability constitutes a risk factor for post-deployment PTSD. Ending this presentation, an ongoing replication study using data on all Danish soldiers deployed to the Balkans, Iraq, and Afghanistan since 1998 (N ≈20,000) will be outlined.
Experiential Avoidance and Psychological Inflexibility Predicts PTSD Symptom Severity Over and Above Established PTSD Risk Factors in a Sample of War Veterans

La Bash, Heidi, PhD; Meyer, Eric, PhD; DeBeer, Bryann, Nathan, PhD; Gulliver, Suzy, PhD; Morissette, Sandra, PhD
1VA VISN 17 Center of Excellence for Research on Returning War Veterans, Waco, Texas, 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
3Texas A&M Health Science Center, Waco, Texas, USA
4The University of Texas at San Antonio, San Antonio, Texas, USA

Numerous PTSD risk factors have been identified; however, many do not directly inform treatment. We examined if higher experiential avoidance and psychological inflexibility assessed by the Acceptance and Action Questionnaire-II (AAQ-II) accounted for unique variance in PTSD symptom severity (CAPS-IV) after accounting for established pre-, peri-, and posttrauma PTSD risk factors in 253 trauma-exposed Iraq and Afghanistan War Veterans. In a regression model, higher AAQ-II scores accounted for unique variance in PTSD symptom severity ($\beta=.27, p<.001$) after accounting for gender, age, racial minority status, intelligence, personality, childhood trauma, combat exposure, perceived life threat, peri-traumatic dissociation, post-deployment social support, and recent life stress. AAQ-II score was the strongest predictor in the model. AAQ-II scores accounted for unique variance in PTSD symptom severity even after accounting for all other predictors and PTSD avoidance symptoms ($\beta=.22, p<.001$), indicating that these findings are not attributable to overlap between AAQ-II scores and PTSD avoidance symptoms. These results underscore the importance of further investigating the role of experiential avoidance and psychological inflexibility in the development and maintenance of PTSD and related functional impairment, including whether they represent useful PTSD treatment targets.

Danish OEF Soldiers from Before to 6.5 Years after Deployment: a Prospective Cohort Study

Karstoft, Karen-Inge, PhD, Cpsych; Nielsen, Anni, PhD, MSc, RN; Andersen, Søren, PhD, Cpsycho
1Research and Knowledge Center, The Danish Veteran Center, Ringsted, Denmark
2Danish Veteran Centre, Ringsted, Denmark

The USPER study is a prospective cohort study of 743 Danish soldiers who deployed to Afghanistan in 2009. Participants completed a range of mental health questionnaires before and during deployment, at return, as well as three months, seven months, and 2.5 years after home coming. Response rates varied across time points but were generally high (e.g. 77% 2.5 years after home coming). Results from the first six waves showed that the proportion of soldiers with a high PTSD-symptom level (defined as PCL $\geq 44$) increased from 3.3% before deployment to 9.7% 2.5 years after home coming. For most of those with a high PTSD-symptom level, symptoms presented with delayed onset (Andersen et al., 2014). From April through June 2016, the entire cohort is once again invited to fill out questionnaires regarding level of PTSD-symptoms (PCL), depression symptoms (BDI), social support, alcohol use, additional life events after deployment (TLEQ), and a range of relevant confounders. This presentation will highlight the findings of the USPER study from before through 6.5 years after deployment. Specifically, we will present prevalence of PTSD-symptoms, trajectories of PTSD and depression symptoms (by application of latent growth mixture modeling), and predictors of trajectory membership.
Oral Paper Presentations
Thursday, November 10
2:45 PM to 4:00 PM
Houston Ballroom C

Substance Abuse/Suicide Paper Session

Trauma Exposure, Depression, Suicidal Ideation, and Hazardous Drinking in People with Serious Mental Illness in Rural Ethiopia
(Global, Depr-Rights-Illness-Sub/Abuse, Adult, I, E & S Africa)

Ng, Lauren, PhD¹; Medhin, Girmay, PhD, MSc²; Fekadu, Abebaw, MSc, MRCPsych, MD, PhD²
¹Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
²Addis Ababa University, Addis Ababa, Ethiopia

In high-income countries, more than 25% of people with severe mental illness (SMI) have PTSD (Grubaugh et al., 2011). Comorbid PTSD is associated with more severe SMI symptoms, functional impairment, and worse treatment outcomes (Lysaker & Larocco, 2008; Mueser et al., 2004). This study assessed trauma exposure and its association with hazardous drinking, depression, and suicidal ideation in people with SMI in Ethiopia. Participants were 300 people (57% male) with SMI in Sodo district (Fekadu, et al, 2016). Hazardous drinking (45% men, 11% women) and suicidal ideation (37%) were common. In addition, 70% reported threatening events in the past six months including financial crisis, joblessness, and serious illness or injury. Moreover, 61% experienced traumatic events including being restrained (52% men, 38% women), beaten (27% men, 10% women), imprisoned (17% men, 2% women), hit by a car (6% men, 1% women) and raped (7% women). After adjusting for demographics, threatening events predicted more suicidal ideation and depression, and traumatic events predicted more hazardous drinking. Globally, people with SMI are at high risk of traumatic and threatening events that may increase risk of comorbid conditions including depression, suicidal ideation, and hazardous drinking in these multiply vulnerable populations.

The Moderating Role of Dysphoria in the Relationship between Intrusions and Alcohol Use
(Assess Dx, Sub/Abuse, Adult, M, Industrialized)

Contractor, Ateka, PhD¹; Presseau, Candice, MA²; Capone, Christy, PhD³; Reddy, Madhavi, PhD⁴; Shea, M. Tracie, PhD⁵
¹VA Boston Healthcare System & Boston University School of Medicine, Jamaica Plain, Massachusetts, USA
²Providence VA Medical Center, Providence, Rhode Island, USA
³Brown University Center for Alcohol and Addiction Studies, Providence, Rhode Island, USA
⁴The University of Texas Health Science Center at Houston, Houston, Texas, USA
⁵Alpert Medical School of Brown University, Providence, Rhode Island, USA

An empirically supported explanation for Posttraumatic Stress Disorder’s (PTSD) comorbidity with alcohol use is the self-medication theory (Khantzian, 1985). In line with this explanation, we examined the effects of trauma-related distress on alcohol use (total drinking days, drinks per drinking day, heavy drinking days) in a sample of 127 trauma-exposed Veterans following deployment to Iraq or Afghanistan. Dysphoria symptoms indicative of distress were examined as a moderator in the relationship between intrusion symptoms and alcohol use with cross-sectional data at three time points (one, six, and 12 months post-deployment). Results indicated that dysphoria symptoms moderated relations between intrusions and total drinking days (β = .33, p = .01, R² = .13) and heavy drinking days (β = .35, p = .01, R² = .10) one month post-deployment; however, there were no significant interactions at 6 and 12 months. Dysphoria did not moderate the relation between intrusion symptoms and drinks per drinking day at all time points. Findings highlight the role of dysphoria related to intrusion symptoms in influencing alcohol use among trauma-exposed Veterans, particularly in the time period following deployment. Consistent with the self-medication hypothesis, we found that Veterans’ use of alcohol was influenced by severity of intrusions especially with concurrent severe dysphoria.
The Influence of Comorbid Depression on Treatment Outcome among Older Male Combat Veterans with PTSD
(Clin Res, Depr-Mil/Vets-Aging, Older, I, Industrialized)

Walter, Kristen, PhD1; Glassman, Lisa, PhD2; Conover, Kate, MA3; Wells, Stephanie, BA4; Leek, Trevor, BS5; Thorp, Steven, PhD6
1Naval Health Research Center, San Diego, California, USA
2San Diego VA/University of San Diego, San Diego, California, USA
3University of California, San Diego and San Diego State University, San Diego, California, USA
4UCSD/SDSU Joint Doctoral Program in Clinical Psychology, San Diego, California, USA
5Veterans Medical Research Foundation, San Diego, California, USA
6VA San Diego Healthcare System / UCSD, San Diego, California, USA

Posttraumatic stress disorder (PTSD) and depression are highly comorbid, especially within military/veteran samples (Rytwinski et al., 2013). Research studies have yielded inconclusive findings regarding the effect of depression on PTSD treatment outcomes. This study investigates the influence of pre-treatment depression severity on symptom trajectory among 85 older (minimum 60 years old) male veterans with combat-related PTSD who received 12 sessions of either prolonged exposure or relaxation as part of a randomized controlled trial. Veterans were grouped on depression severity (No/mild depression, n=62; Moderate/severe depression, n=23). The PTSD Checklist (PCL-S) and Patient Health Questionnaire (PHQ-9) were completed at pre-treatment, each attended session, post-treatment, and six-month and one-year follow-up. Multilevel Modeling (MLM) was used to evaluate the influence of comorbid depression on symptom outcomes. MLM results indicated main effects of time (β=−3.22, p<.001) and depression (β=12.98, p<.001) on PCL scores; main effects of time (β=−.52, p<.01) and depression (β=7.73, p<.001) on PHQ-9 scores were also noted. No significant interaction emerged between time and depression. Results suggest that older male veterans with PTSD and comorbid depression improve similarly to those with no/low depression, but they endorse greater symptomatology at each time point.

Examination of Perceived Threat, Cognitive Disortions, and Suicidal Ideation among US Combat Veterans with PTSD
(Clin Res, Affect/Int-Chronic-Depr-Mil/Vets, Adult, M, Industrialized)

Menefee, Deleene, PhD; Wanner, Jill, PhD; Leopoulos, Wendy, MD
Michael E. DeBakey VA Medical Center / Baylor College of Medicine, The Menninger Department of Psychiatry and Behavioral Medicine / South Central Mental Illness Research Education and Clinical Center (MIRECC) / Traumatic Brain Injury Center of Excellence, Houston, Texas, USA

Psychological factors may intensify a traumatic combat experience and predict PTSD (Hoge, et al., 2004; King et al., 2006). Among US Veterans deployed to Iraq/Afghanistan, research shows higher perceived threat predicted PTSD (Huang & Kashubeck-West, 2015) and depression (Hoge, et al., 2006; Lapierre, et al., 2007; Mott, et al., 2012). However, few studies examined the influence of perceived threat on suicidal ideation (SI) despite the nine-fold increase in SI found among deployed personnel (Cigrang et al., 2015), the number of Veterans who deliberately self-harm (Kimbel et al., 2014) and rates of death by suicide (DoD, 2015). This study aimed to examine the relationship between perceived threat and SI among 211 OEF/OIF Veterans (male=175, female=36) seeking PTSD treatment. Among these Veterans, 22 % had a psychiatric hospital admission during service and 36% had one attempt since discharge. Scores on self-report measures indicated severe PTSD (M = 68.4, SD = 11.4), depression (M = 35.8 , SD = 11.3 ) and SI (M = 9.7 , SD = 7.8). Bootstrapping (PROCESS; Hayes, 2012) examined whether negative cognitions statistically mediated the relationship between perceived threat and SI, depression, and PTSD. Implications are discussed for preventing SI and suicide for US combat Veterans.
CONCURRENT SESSION FOUR

Master Methodologist
Thursday, November 10
4:15 PM to 5:30 PM
San Antonio Ballroom A

Planning a Large Scale Population Survey: Choices and Consequences
(Tech, Acc/Inj-Nat/Dis, N/A, M, N/A)

Boyle, John, PhD
ICF International, Rockville, Maryland, USA

We have conducted population based assessments of trauma and trauma-related disorders, both in the general public and in sub-populations at greater risk to trauma, for decades. Some populations at greater risk of traumatic events, including active duty military, veterans, first responders, some adjudicated crime victims, among others, can be identified and sampled from databases. However, traumatic events include crime, war, other forms of violence, natural disasters, fires, flooding, vehicular crashes and other accidents, occur throughout the general population. Hence, many studies of trauma begin with general population sampling frames from which cross-sectional or longitudinal, retrospective or prospective assessments of trauma, trauma-related disorders, their correlates and the mediators can be conducted. The ISTSS meeting is an ideal platform to reflect on the promise of innovative technology and methodology in improving our measurement of trauma and trauma-related disorders. Mobile data collection may allow us to develop real time measures of conditions and reactions to natural (and man-made) disasters. Web-based panels may permit us to measure changes in symptom pattern, health outcomes and recovery from trauma on a much more detailed basis.

Symposium
Thursday, November 10
4:15 PM to 5:30 PM
Dallas A2

Innovative Online Services to Increase Treatment Access and Engagement for Veterans
(Tech, Clin Res-Pub Health-Mil/Vets-Care, Adult, I, Industrialized)

Possemato, Kyle, PhD
Syracuse Veterans Affairs Medical Center, Syracuse, New York, USA

Many military veterans voice a preference for incorporating technology into their treatment services and online interventions can provide a private, convenient and low-stigma avenue to access quality treatment services. This symposium will report on veterans’ preferences for how online services should be provided and describe patient outcomes related to three different web-delivered mental health treatments.

- Dr. Ortigo will present survey data on how appealing online mental health services would be for veterans receiving primary care services who have problems following service in Afghanistan or Iraq.
- Dr. Greene will present results from an evaluation of an online problem-solving therapy in a large sample of non-treatment seeking veterans, including change in mental health symptoms.
- Dr. Brief will report on trauma-related factors and their relationship to alcohol outcomes for a national sample of OEF/OIF Veterans participating in a self-management web-based intervention for problem drinking and PTSD.
- Dr. Possemato will describe how peer support services were combined with a web-based treatment for PTSD and alcohol misuse and report on a pilot randomized clinical trial comparing the effectiveness of the web treatment with and without peer support.
Preliminary Evaluation of Moving Forward: an Online Problem-Solving Skills Program
(Tech, Clin Res-Dep-Qol-Train/Ed/Dis, Adult, I, Industrialized)

Carolyn, Greene, PhD1; Prins, Annabel, PhD2
1Department of Veteran Affairs, Menlo Park, California, USA
2National Center for PTSD and National Center for Telehealth and Technology, Menlo Park, California, USA

Problem solving therapy (PST) is an efficacious cognitive behavioral treatment for depression. By improving problem solving skills, individuals are able to increase both their quality of life and resilience. Recently, Greene, et al (2011) created an online PST course Moving Forward (www.VeteranTraining.va.gov/MovingForward) designed to reach veterans who may not otherwise seek mental health services. The course is free, anonymous, and available on-demand, thus mitigating barriers to care such as stigma, busy schedules, and geographic isolation. The current study is a preliminary evaluation of the effectiveness of Moving Forward in a large sample (n=365) of non-treatment seeking veterans. Results indicated that the intervention was effective in improving problem solving skills. Further, improvements in problem solving predicted decreases in depressive symptoms and increases in general mental health and resiliency. The benefits of the intervention were strongest within a subsample of individuals with elevated depressive symptoms who showed significant improvements in depressive symptoms and general mental health in the magnitude of small to moderate effect sizes.

Trauma and Drinking Outcomes among Returning Veterans Participating in a Web-based Intervention
(Clin Res, Sub/Abuse-Tech-Mil/Vets, Adult, I, N/A)

Brief, Deborah, PhD3; Solhan, Marika, PhD1; Rybin, Denis, PhD2; Enggasser, Justin, PhD1; Rubin, Amy, PhD1; Roy, Monica, PhD1; Helmuth, Eric, PhD2; Vittorio, Lisa, BA2; Rosenbloom, David, PhD2; Keane, Terence, PhD4
1VA Boston Healthcare System & Boston University School of Medicine, Boston, Massachusetts, USA
2Boston University School of Public Health, Boston, Massachusetts, USA
3VA Boston Healthcare System, Brockton, Massachusetts, USA
4National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA

High rates of alcohol misuse and PTSD co-morbidity are observed among Veterans who served in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). In a randomized clinical trial, our research group previously demonstrated the effectiveness of a web intervention (VetChange) to reduce alcohol use, problem severity, and PTSD symptoms in OEF/OIF Veterans. The results presented here represent secondary analyses of these data and address the important question of how baseline deployment-related trauma variables impact the effectiveness of VetChange for OEF/OIF Veterans. We found that PTSD symptom severity had a positive association with baseline alcohol use and problem severity. However, participants with higher baseline PTSD symptom severity demonstrated a sharper decline in alcohol use and problem severity compared to participants with lower levels of PTSD during the intervention. The impact of other trauma variables was also explored. Overall the findings suggest that OEF/OIF Veterans with higher levels of PTSD can benefit from Web interventions targeting problem drinking. We will discuss the implications of our findings for reaching and intervening with Veterans with alcohol and PTSD co-morbidity through web interventions.

Can Adding Peer Support Boost the Effectiveness of a Web-Based Treatment for PTSD and Alcohol Use?
(Tech, Clin Res-Pub Health-Mil/Vets-Care, Adult, I, Industrialized)

Possemato, Kyle, PhD1; Johnson, Emily, PhD2; Emery, Janet, BA1; Maisto, Stephen, PhD3
1Syracuse Veterans Affairs Medical Center, Syracuse, New York, USA
2Center for Integrated Healthcare, Syracuse VA Medical Center, Syracuse, New York, USA
3Syracuse University, Syracuse, New York, USA

Veterans who served in Iraq and Afghanistan have high rates of co-occurring PTSD symptoms and hazardous alcohol use. Evidence-based treatments for these problems are available, but multiple barriers lead to low utilization. Novel treatment approaches
are needed. Previous research supports that 1) primary care-mental health integration services are associated with increased access to treatment, 2) technology-based interventions are well accepted by veterans and can be more effective when delivered with professional support, and 3) veteran peer services are associated with improved treatment engagement and overall functioning. We added veteran peer support to an existing Web-based Cognitive Behavioral Treatment (WebCBT) for PTSD and alcohol misuse in response to our previous data indicating that veterans wanted interpersonal interaction while receiving WebCBT and needed help engaging in the treatment. A pilot randomized controlled trial (N=30) is comparing Self-Managed WebCBT to Peer Supported WebCBT. Preliminary results show that peer supported participants averaged a 12-point decrease on the PTSD Checklist at mid-treatment compared to a 5-point decrease in self-managed participants. Peer-supported participants also completed 29% more WebCBT modules than self-managed participants. Peer support may boost the effects of a WebCBT. Final results will be presented in November.

Veteran Preferences for Alternative Methods for Mental Health Care Delivery (Tech, Media-Tech-Mil/Vets-Care, Adult, I, Industrialized)

Ortigo, Kile, PhD1; Owen, Jason, PhD, MPH1; Carlson, Eve, PhD2
1National Center for PTSD, VA Palo Alto Health Care System, Menlo Park, California, USA
2National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA

Mental health problems occur at high rates in veterans. A study of deployed veterans receiving VA healthcare services found that 24% received a diagnosis of depression, PTSD, or anxiety disorder. Despite extensive VA efforts to hire and train MH staff to deliver evidence-based treatments, only a small proportion of veterans with depression, PTSD, or anxiety diagnoses receive an adequate dose of psychotherapy. Key barriers to care include: concern about being labeled with a mental disorder, stigma associated with mental health treatment, lack of belief that psychotherapy will work, and preference for self-help and independence. Given the possibility that preferences about MH services are contributing to low rates of adequate treatment, we surveyed 52 veterans who were VA primary care patients about the appeal of alternative methods of mental health services delivery to veterans experiencing problems after military service. The majority of those surveyed found MH services delivered anonymously via self-help online or mobile apps appealing, with 71% of those under 40 found them appealing. A focus on increasing positive emotions, improving relationships, reducing anger, and improving sleep were all rated higher than focus on mental disorder. Findings also indicate that some veterans may prefer using self-help, online MH programs to face-to-face psychotherapy.

Symposium Thursday, November 10 4:15 PM to 5:30 PM Dallas A3

Trauma-related Cognitions in Children, Adolescents and Caregivers (Clin Res, Cog/Int, Child/Adol, M, Global)

Goldbeck, Lutz, PhD1; Alisic, Eva, PhD2
1University Ulm, Department of Child and Adolescent Psychiatry/Psychotherapy, Ulm, Baden-Wuerttemberg, Germany
2Monash University, Melbourne, Victoria, Australia

Cognitions play an important role in coping with traumatic experiences. In children both the child’s and their caregivers’ cognitions have to be considered. Two clinician researchers will present findings from explorative studies of children’s and parental cognitions and demonstrate the clinical relevance of dysfunctional cognitions. Another two presenters will examine the role of trauma-related cognitions in treatment response of children with PTSD and in preventing PTSD in trauma-exposed children. The symposium will focus on approaches to identify maladaptive cognitions and to improve adaptive cognitive coping strategies in children and caregivers.
Dysfunctional Maltreatment-related Cognitions in Children and Adolescents  

de Haan, Anke, MS, PhD Student; Ganser, Helene, MS, PhD Student; Münzer, Annika, MS, PhD Student; Witt, Andreas, MS, PhD Student; Goldbeck, Lutz, PhD

1University Ulm, Department of Child and Adolescent Psychiatry/Psychotherapy, Ulm, Baden-Wuerttemberg, Germany

Background: Dysfunctional trauma-related cognitions (permanent and disturbing change; fragile person in a scary world) correlate highly with chronic stress. Studies regarding maltreated children and adolescents and on predictors of these dysfunctional cognitions are rare. Method: The sample consisted of 237 children aged 8-17, who had experienced domestic violence, emotional abuse, neglect, physical and/or sexual abuse. Correlations between cognitions, posttraumatic stress symptoms (PTSS) and behavioural problems were calculated. Additionally, the association between dysfunctional cognitions (permanent change and scary world) and blame attribution was assessed. Moreover, possible factors associated with dysfunctional cognitions and interactions between these factors such as gender, age, maltreatment type and perpetrator were investigated. Results: Dysfunctional maltreatment-related cognitions correlated significantly with PTSS as well as behavioural problems and were associated with self-blame. Significant factors were gender and perpetrator. Moreover, there was an interaction effect of gender and age, with female adolescents showing most dysfunctional cognitions. Discussion: Dysfunctional maltreatment-related cognitions are associated with a pathological course after maltreatment and need to be addressed in terms of diagnostic and therapy, especially in female adolescents.

The Relationship between Parental Cognitions and Mental Health Outcomes after Children Experience Trauma  
(Clin Res, Acc/Inj-Acute-Cog/Int-Fam/Int, Lifespan, M, Industrialized)

Schilpzand, Elizabeth, PhD Candidate1; Conroy, Rowena, PhD2; Alisic, Eva, PhD3; Anderson, Vicki, PhD4

1University of Melbourne, Melbourne, Victoria, Australia
2Royal Children's Hospital, Melbourne, Victoria, Australia
3Monash University, Melbourne, Victoria, Australia
4Murdoch Children's Research Institute, Melbourne, Victoria, Australia

How parents respond to traumatic events experienced by their children has been found to influence children’s responses, but there is a lack of empirical evidence to understand the mechanisms. Parental cognitions potentially moderate the psychological effects of traumatic exposure in children. The present study examined the relationship between parental cognitions, child cognitions and child mental health following children’s exposure to trauma. Study participants were parents and children aged 8-16 years who presented to the Emergency Department following serious accidental injury. Data collection involved parent and child questionnaires to assess posttraumatic cognitions and mental health outcomes. We will present associations between parent and child posttraumatic adjustment. This research will inform ways to prevent and treat adverse outcomes of trauma for children and their families.
The Mediating Role of Parental Posttraumatic Cognitions in the Trauma-Focused Cognitive Behavioral Therapy of Children and Adolescents: Results from a Randomized Control Study  
(Clin Res, Clin Res-Fam/Int, Lifespan, M, Industrialized)

Tutus, Dunja, MSc1; Pfeiffer, Elisa, MSc2; Sachser, Cedric, MSc2; Goldbeck, Lutz, PhD2
1University Hospital Ulm, Ulm, Baden-Württemberg, Germany
2University Ulm, Department of Child and Adolescent Psychiatry/Psychotherapy, Ulm, Baden Wuerttemberg, Germany

Parental dysfunctional cognitions, related to the child’s trauma, moderate the child’s response to Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). We investigated, if changes in the parental appraisals mediate the child’s therapy-outcome in terms of PTSS and posttraumatic cognitions. A subsample of RCT treatment completers, who were randomly assigned to either a TF-CBT (n=39) or a waiting-list (n=45) condition, were assessed by the Clinician Administered PTSD Scale for Children and Adolescents (CAPS-CA) and the Child Posttraumatic Cognitions Inventory (CPTCI). Their care-givers completed the UCLA PTSD Reaction Index for DSM-IV (UCLA-PTSD RI) and the Posttraumatic Cognitions Inventory (PTCI). The mediation hypotheses was tested by a multiple mediation model devised by Preacher and Hayes (2008). The change in parental appraisals significantly mediated the difference between the conditions considering the child’s parent-reported PTSS. Change in the child’s cognitions and self-reported PTSS were not significantly mediated by parental cognitions. Effects of TF-CBT on the parental cognitions influenced only parent-reported but not the self-reported child’s PTSS. Change in the child’s posttraumatic cognitions remained independent of change in the parental cognitions, suggesting independent therapy effects on trauma-related cognitions of children and their caregivers.

Attributions Bias Modification Training: An Intervention for Changing Children’s Threat Related Biases  
(Clin Res, Acute-Cog/Int, Child/Adol, M, Industrialized)

Hogan, Sue, PhD Candidate; Nixon, Reginald, PhD
Flinders University, School of Psychology, Adelaide, South Australia, Australia

Negative interpretation bias is theorised to be a maintaining factor of child anxiety. Nonclinical children who experience traumatic events can interpret such events negatively placing them at risk. Yet optimal methods for modifying children’s threat-related biases remains understudied. This study is the first RCT assessing attribution bias modification training (ABM) in trauma-exposed but non-treatment seeking students. Children 10-14 years are randomly allocated to a 2 (Training: ABM active, Control-placebo) × 3 (Time: pre, post, 3-month FU) mixed design. To date 145 children have been recruited. ABM facilitates a positive interpretation of ambiguous scenarios. Children do 4 x 30min trainings over 2 weeks. Trauma symptoms, negative trauma-related beliefs and interpretive biases are measured. We predict that ABM will result in greater reductions in unhelpful interpretations and increases in adaptive interpretations relative to controls. These improvements will mediate training effectiveness. We expect initial symptom severity will moderate outcomes, with children displaying greater levels of posttraumatic stress (PTS) and negative cognitions to benefit most from the ABM. The study will provide an important understanding of possible benefits of ABM for use in trauma-exposed school populations. It may have implications for existing cognitive therapies for children suffering PTS.
Symposium  
Thursday, November 10  
4:15 PM to 5:30 PM  
Dallas D1

Epigenetic Insights into Post-traumatic Stress Disorder: Novel Results from Psychiatric Genomics Consortium Investigators  
(Bio Med, Gen/Int-Bio/Int-Genetic, Adult, M, N/A)

Uddin, Monica, PhD  
University of Illinois, Champaign, Illinois, USA

Epigenetic factors have gained increasing interest among those interested in understanding the biologic basis of post-traumatic stress disorder (PTSD). PTSD represents a unique situation in which a specific traumatic experience is incorporated into the diagnosis, and trauma exposure has been shown to alter epigenetic patterns in both animal and human studies, prompting the need to conduct epigenetic studies of PTSD in addition to genetic studies. Over the last decades, evidence has mounted that epigenetic mechanisms mediate some effects of the environment on gene expression—a key consideration in PTSD research. In this symposium, we will describe recent advancements in epigenetic analyses of PTSD. This symposium assembles four speakers who are part of the epigenome-wide association study (EWAS) branch of the PTSD psychiatric genomics consortium (PGC), who will be presenting novel epigenetic data on PTSD.

Region-based Analyses of Differential Methylation in Post-traumatic Stress Disorder  
(Bio Med, Genetic, Adult, M, Industrialized)

Ratanatharathorn, Andrew, MA PhD Student1; Aiello, Allison, MS, PhD2; Armstrong, Don, PhD3; Binder, Elisabeth, MD PhD4; Bustamante, Angela, BS, MS5; Galea, Sandro, MD, DrPH6; Koenen, Karestan, PhD7; Kilaru, Varun, MS8; Ressler, Kerry, MD PhD9; Smith, Alicia, PhD10; Sumner, Jennifer, PhD11; Uddin, Monica, PhD12; Wildman, Derek, PhD13; Guffanti, Guia, PhD14

1Columbia University, Mailman School of Public Health, New York, New York, USA  
2University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA  
3University of Illinois, Urbana, Illinois, USA  
4Emory University, Atlanta, Georgia, USA  
5Boston University, Boston, Massachusetts, USA  
6Harvard School of Public Health, Boston, Massachusetts, USA  
7Emory University School of Medicine, Atlanta, Georgia, USA  
8Harvard Medical School, Belmont, Massachusetts, USA  
9University of Illinois, Champaign, Illinois, USA  
10University of Illinois at Urbana-Champaign, Urbana, Illinois, USA

DNA methylation (DNAm) differences at individual CpG sites have been associated with Post-traumatic Stress Disorder (PTSD). While informative, identification of Differentially Methylated Regions (DMRs), which consist of a group of adjacent CpG sites, may offer a more powerful approach to identifying genes whose regulation vary in those with PTSD. We applied the Aclust algorithm to identify DMRs associated with PTSD in a combined sample of current PTSD cases (n=118) and trauma exposed controls (n= 264) from the Detroit Neighborhood Health Study and the Grady Trauma Project. All analyses controlled for age, gender, estimated cell type proportions, and ancestry principal components. We identified two DMRs significantly associated with PTSD after multiple testing correction: a cluster of six CpG sites in MAP3K13 (FDR-\(p = 0.034\)) and of five CpG sites in C18orf1 (FDR-\(p = 0.037\)). In both DMRs, higher DNAm was associated with PTSD. Sensitivity analyses were then performed by varying the minimum correlation required between CpG sites and the number of CpG sites required to form clusters. The results for MAP3K13 were robust to varying criteria for cluster formation, while the C18orf1 cluster was significant in the most stringent analysis. Future steps include examining whether differences in DNAm are associated with gene expression in this sample and in brain tissue.

Differential Methylation of Imprinted Genes in Post-Traumatic Stress Disorder  
(Bio Med, Complex-Gen/Int-Health-Genetic, Adult, M, Industrialized)

Armstrong, Don, PhD1; Koenen, Karestan, PhD2; Smith, Alicia, PhD3; Ressler, Kerry, MD PhD4; Aiello, Allison, MS, PhD5; Galea, Sandro, MD,
Blood miRNA dysregulation in PTSD: Implications for Treatment

(Department of Veterans Affairs Medical Center, VA Mid-Atlantic; Veterans Integrated Service Network (VISN) 6 Mental Illness Research, Education and Clinical Center, Industrialized)

Delineating epigenetic contributions to individual differences in the stress response and recovery is critical to understanding responses to trauma such as PTSD. Such markers might also prove useful in tracking treatment response. We therefore evaluated blood miRNA levels, a contributor to epigenetic regulation, in PTSD and validated dysregulated miRNAs as potential treatment targets both in humans and in an animal model. We analyzed whole-blood genome-wide miRNA expression from combat veterans with and without PTSD (n=52/group) and from veterans with PTSD who were sampled before prolonged exposure therapy (n=24). In parallel, we employed the predator-scent stress (PSS) rat model of PTSD and analyzed miRNA expression in amygdala and hippocampus 7 days after PSS followed by an administration of high-dose corticosterone, which prevents PTSD-like phenotypes. The miRNAs differentially expressed in PTSD patients compared to controls (DEmiRNAs) and validated by qPCR will be presented. Moreover, expression of 6 of the PTSD DEmiRNAs (hsa-let-7b-3p, hsa-let-7i-5p, hsa-miR-324-3p, hsa-miR-339-5p, hsa-miR-148b-3p, hsa-miR-1225-5p) predicted response to psychotherapy. A subset of the rat orthologues of the human DEmiRNAs that were also differentially expressed in the rat brain in response to corticosterone, were interestingly found to be associated with innate immunity pathways.

An Epigenome-Wide Association Study of PTSD in Iraq/Afghanistan Veterans

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

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

1Department of Veterans Affairs Medical Center, Veterans Integrated Service Network (VISN) 6 Mental Illness Research, Education and Clinical Center.
The objective of this presentation is to describe preliminary findings from an ongoing epigenome-wide association study (EWAS) study of PTSD being conducted by the VA Mid-Atlantic Mental Illness, Research, Education, and Clinical Center (MIRECC). To date, peripheral blood samples have been collected from 3,000+ Iraq/Afghanistan Veterans who have been assessed for PTSD using a structured clinical interview. Differential methylation analyses of current PTSD diagnostic status (87 cases, 89 trauma-exposed controls) has already been completed on 176 non-Hispanic White Veterans using LIMMA. In these analyses, we controlled for age, gender, population stratification, batch effects, and estimates of cell types. There was no evidence of genomic inflation (lambda = 1.008), suggesting that the PCs were sufficient to control for population stratification. Although no probes met genome-wide significance, four probes had p-values at 10-6, including three probes within intergenic regions and one probe within the VTI1A gene (9.84 x 10^-6). In addition, we observed nominal evidence for differential methylation of three genes previously identified by the PGC, including GSG1L (p=0.005), HIP1 (p=0.009), and FMN1 (p=0.02). We are continuing to add additional data to this dataset; however, we are encouraged by the preliminary findings we have already identified in a relatively small dataset.

Symposium
Thursday, November 10
4:15 PM to 5:30 PM
Dallas D2

Diverse Approaches to Understanding Post-combat Adaptation among OEF/OIF/OND Veterans: Integrating Social, Cognitive, Affective, and Trait-based Factors

Evolving our Approach to Understanding Social Support and PTSD: Incorporating Bi-Directional Models and Method Variance

Woodward, Matthew, MS1; Morissette, Sandra, PhD2; Kimbrel, Nathan, PhD1; Meyer, Eric, PhD3; DeBeer, Bryann, PhD2; Gulliver, Suzy, PhD2; Beck, J Gayle, PhD1

1University of Memphis, Memphis, Tennessee, USA
2The University of Texas at San Antonio, San Antonio, Texas, USA

To understand how veterans adapt to life after combat, research must integrate social, cognitive, affective, and trait-like factors that work in-concert to characterize experience. This symposium includes four studies that uniquely examine these facets to predict adaptation or disruption of adaptation among OEF/OIF veterans. Study 1 employs structural equation modeling with competing model tests to examine the bi-directional relationship between PTSD and social support across time. Study 2 employs descriptive and growth curve modeling approaches to elucidate modifiable protective factors (distress tolerance; insomnia) that may be targeted throughout the first year following redeployment. Study 3 employs path-analysis to examine how emotion dysregulation negatively alters adaptation among treatment seeking veterans, identifying coping self-efficacy and worldviews as potential mechanisms. Study 4 applies ANCOVA to examine the interaction of traumatic brain injury with personality prototypes (using cluster analysis), highlighting a resilient personality prototype that predicts optimal functioning across time (higher social support and quality of life; lower PTSD and depression symptoms). Implications are discussed with a focus on furthering understanding of post-combat adjustment, public health policy, and interventions focused on wellness and adaptation among OEF/OIF veterans.
Although there is a strong and consistent association between social support and PTSD, the directionality of this association has been debated, with some researchers proposing that social support protects against PTSD, whereas other researchers suggest that PTSD erodes social support. The majority of studies in the literature have been cross-sectional, rendering causality impossible to determine. The current study used a cross-lagged panel structural equation model to explore the relationship between social support and PTSD over a one-year period in a sample of 264 OEF/OIF/OND Veterans. Two separate models were run, with one model using self-report assessed PTSD and the other model using clinician assessed PTSD. Excellent model fit was found for both models. Results indicated that the relationship between social support and PTSD was affected by assessment modality, with the self-report model finding a bidirectional relationship between social support and PTSD over time, whereas the clinician assessed model only found that baseline PTSD affected social support one year later. Findings highlight the importance of utilizing longitudinal data to better understand the relationship between social support and PTSD and suggest that assessment modality can impact the associations between these constructs.

**Resilience and Traumatic Brain Injury among Iraq/Afghanistan War Veterans: Differential Patterns of Adjustment and Quality of Life**

(Assess Dx, Anx-Assess Dx-QoL-Mil/Vets, Adult, M, N/A)

Elliott, Timothy, PhD, ABPP; Hsiao, Yu-Yu, MA
PhD Student; Kimbrel, Nathan, PhD; Meyer, Eric, PhD; DeBeer, Bryann, PhD; Gulliver, Suzy, PhD; Kwok, Oi-Man, PhD; Morissette, Sandra, PhD

1Texas A&M Health Science Center, College Station, Texas, 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
3VA VISN 17 Center of Excellence for Research on Returning War Veterans, Waco, Texas, USA
4Texas A&M Health Science Center, Waco, Texas, USA
5The University of Texas at San Antonio, San Antonio, Texas, USA

In this presentation participants will learn a trait conceptualization of resilience that may account, in part, for symptoms attributed to TBI that adversely affect adjustment and quality of life. 127 veterans (107 men, 20 women; mean age = 37) completed measures at baseline, and several instruments were administered again four and eight months later. Cluster analysis of the three higher-order dimensions (positive emotionality, negative emotionality, constraint) of the Multidimensional Personality Questionnaire created three prototypes: Resilient, Overcontrolled and Undercontrolled. TBI status was determined at baseline. Controlling for combat exposure, a series of 3 X 2 ANCOVAs revealed significant and large effects for personality prototype tolerance for emotional distress, psychological inflexibility, sleep quality and several health behavior variables (e.g., stress management, physical activity, spiritual growth). A resilient personality prototype was associated with optimal scores. No main effect was found for TBI. A series of path models found personality significantly predicted social support, PTSD, depression, and overall quality of life at each assessment. Resilience was associated with optimal scores. A positive TBI screen significantly predicted higher PTSD symptoms at each assessment. Theoretical and clinical implications will be discussed.

**Modifiable Risk Factors for the Emergence of PTSD in Deployed Military Personnel**

(Clin Res, Prevent-Mil/Vets, Adult, M, N/A)

Roberge, Erika, BA; Williams, Paula, PhD; Heron, Elizabeth, PhD; Bryan, Craig, PsyD

1National Center for Veterans Studies and University of Utah, Salt Lake City, Utah, USA
2University of Utah, Salt Lake City, Utah, USA
3USA Air Force, JBSA-Lackland, Texas, USA

Approximately 50% of veterans deployed to Iraq and Afghanistan have experienced combat trauma. The current study sought to examine distress tolerance, predeployment insomnia, and depressive symptoms as potential moderators of the combat exposure-
PTSD association. 170 airmen completed measures of distress tolerance, insomnia, depressive symptoms, and PTSD at six time points over one year. The majority of the sample was Caucasian (64.7%) and male (87.1%), with an average age of 26 years. Participants reported 0-23 combat experiences (M= 3.87). Significant variability of PTS over the year was observed. Approximately 37% of the variance of PTS was observed within individuals. Number of combat experiences, predeployment distress tolerance, insomnia, and depression each showed small to strong correlations with PTSD severity at each postdeployment time point (r’s= 0.18- 0.43, p’s <0.05; r’s= -0.20 - -0.33, p’s <.05; r’s= 0.36- 0.44, p’s <.001; r’s = 0.40- 0.57, p’s <.001, respectively). Further analyses will be completed using growth modeling to understand how these potential moderating factors vary between people and over time. Study findings suggest that distress tolerance, insomnia, and depression may be modifiable protective/ risk factors for the development of PTSD among individuals facing combat exposure.

**Emotion Dysregulation, Coping Appraisals, and Negative Worldview in the Post-Combat Adaptation Process among Treatment Seeking OEF/OIF/OND Veterans**

Smith, Andrew, MA PhD Student; Holohan, Dana, PhD; Jones, Russell, PhD

1Virginia Tech, Blacksburg, Virginia, USA  
2Salem VA Medical Center, University of Virginia School of Medicine, Virginia Tech Carilion School of Medicine, Roanoke, Virginia, USA  
3Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA

This study integrates behavioral and social-cognitive theories to predict post-combat adaptation (PTSD and depression severity; quality of life). We specifically tested the hypothesis that higher levels of emotion dysregulation would predict worse post-combat functioning by diminishing coping self-efficacy appraisals and increasing severity of negative worldview. Methods. The current sample includes treatment seeking OEF/OIF veterans (N=123; ageM=35; 89% male; 78% White, 11% Black). Hypotheses were tested via path-analysis, employing bootstrapping re-sampling and competing model tests. Results. Model fit was excellent for each of the models tested (e.g., predicting PTS severity; SRMR=.034, CFI = .99; TLI = .97; χ2[2] = 3.170, p = .205), explaining 49% variance in PTSD, 60% variance in depression, and 42% variance in quality of life. Results show that emotion dysregulation promotes worse post-combat adaptation, primarily through the proposed mechanisms (reducing adaptive PDCSE appraisals and increasing severity of negative worldview). Conclusions. Findings are interpreted through theory and the extant literature, focusing on implications for public health intervention approaches. Emphasis is placed on post-combat therapies and research that strives towards promoting meaningful-living among veterans- even amidst psychopathology and less-than-ideal life circumstances.

**Symposium**
**Thursday, November 10**
**4:15 PM to 5:30 PM**
**Dallas D3**

**Core Symptoms of ‘Classic’ PTSD and Complex PTSD - and Their Relation to DSM-5 PTSD**

Lueger-Schuster, Brigitte, PhD  
*University of Vienna, Vienna, Vienna, Austria*

There are broad differences in the conceptualization of disorders specifically associated with stress in DSM-5 and the proposal of ICD-11. It is unclear how this will affect the concordance of PTSD and Complex PTSD according to those classification systems. This also affects instruments to assess these disorders, moreover stability and validity of prevalence rates, or the latent dimensions of these constructs might differ in their core results. In this symposium, we will address the validity of assessment instruments for the civilian population, the concordance and stability of the diagnosis over several years in the two diagnostic systems, and the results of factor analyses and network analyses will reflect the latent dimensions of the different concepts of DSM and ICD. The presented studies used European samples, suffering from a variety of...
traumatic exposure. Results corroborate the differences in the conceptualizations of disorders specifically associated with stress. Individuals classified in one system fail to fulfill criteria in the other system and vice versa. Diverse symptoms can be defined as core symptoms, depending on which conceptualization is applied. Clinical utility as well as the theoretical framework of PTSD and Complex PTSD need a coherent classification to provide patients the best assessment and treatment.

Performance of the PCL-5 in Comparison to the CAPS-5 in Diagnosing PTSD in a UK Treatment Seeking Population
(Assess Dx, Assess Dx, Adult, M, Industrialized)

Roberts, Neil, DPsych(Clin)1; Downes, Anthony, PhD2; Jumbe, Sandra, PhD3; Kitchiner, Neil, PhD4; Bisson, Jonathan, MD5
1Cardiff and Vale University Health Board, Cardiff, United Kingdom
2Betsi Cadwaladr Health Board, Flintshire, Wales, United Kingdom
3Health and Care Research Wales Workforce, Cardiff, Wales, United Kingdom
4University Hospital of Wales, Cardiff, United Kingdom
5Cardiff University School of Medicine, Cardiff, Wales, United Kingdom

Objective: To date published data on the psychometric properties of the PCL-5 is only available from one study of U.S. veterans. We examined the performance of the PCL-5 relative to the CAPS-5, in a UK treatment seeking sample of individuals screening positive for PTSD. Method: One hundred seventy seven individuals participated in a study designed to validate the PCL-5. Participants completed the CAPS-5 and a variety of self-report questionnaires in order to establish convergent and discriminant validity. Results: Preliminary findings provide strong evidence for the reliability and validity of the PCL-5. Cronbach alpha was .95 and PCL-5 scores correlated strongly with the CAPS-5 total score (rs = .75). A PCL-5 score of 43 (sensitivity = .87, specificity = .77, PPV = .87, NPV = .77, efficiency = .84) showed the greatest diagnostic utility. Findings were comparable to the recent those obtained for U.S. veterans although the optimal cut-off score was 9-11 points higher. Conclusion: The PCL-5 has strong psychometric properties and excellent diagnostic utility in a UK sample. Comparison with other research and application to other populations and settings will be discussed.

The Psychopathological Symptom-networks of Trauma Related Disorders in DSM-5 and Proposed ICD-11
(Assess Dx, CSA-Theory, Adult, M, Global)

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

ICD-11 and DSM-5 differ largely in their definitions of posttraumatic stress disorder (PTSD). PTSD in DSM-5 is comprised of more symptoms than in ICD-11; however, ICD-11 defines a new disorder, complex PTSD, which also includes several of the DSM-5 PTSD symptoms. To compare these different formulations, we used the PTSD Checklist for DSM-5 and the ICD-11 Trauma Questionnaire in a sample of 219 adult survivors of childhood institutional abuse (59.8% male, mean age = 57.9 yrs.). We aimed to identify important symptoms within both formulations by estimating graphical lasso networks of PTSD symptoms and inspecting network node-centrality measures. Throughout all three used centrality measures (betweenness, closeness, strength), in the ICD-11 network two symptoms consistently performed as very central: exaggerated startle response and feelings of worthlessness; additionally, psychological distress at exposure to cues was central in terms of strength-centrality. For DSM-5, several symptoms performed as central: feeling of detachment (betweenness and closeness), diminished interest (betweenness), exaggerated startle response (closeness), intrusive distressing memories (strength), and psychological distress at exposure to cues (strength). These results show a complex picture of symptom networks in trauma related disorders that should be further investigated in various populations.
A Comparison of the Factor Structure of ICD-11 PTSD, ICD-11 Complex PTSD, and DSM-5 PTSD among a British Clinical Sample
(Assess Dx, Assess Dx-Chronic-Complex-Res Meth, Adult, M, Industrialized)

Hyland, Philip, PhD1; Shevlin, Mark, PhD2; Brewin, Chris, PhD3; Cloitre, Marylene, PhD4; Downes, Anthony, PhD5; Jumbe, Sandra, PhD6; Karatzias, Thanos, PhD, Cpsy8; Bisson, Jonathan, MD8; Roberts, Neil, DPSych(Clin)9

1National College of Ireland, Dublin, Ireland
2University of Ulster, Derry, United Kingdom
3University College London, London, United Kingdom
4National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
5Betsi Cadwaladr Health Board, Flintshire, Wales, United Kingdom
6Health and Care Research Wales Workforce, Cardiff, Wales, United Kingdom
7Edinburgh Napier University & Rivers Centre for Traumatic Stress, Edinburgh, Scotland, United Kingdom
8Cardiff University School of Medicine, Cardiff, Wales, United Kingdom
9Cardiff and Vale University Health Board, Cardiff, United Kingdom

The DSM-5 and the upcoming ICD-11 present alternative methods of conceptualizing traumatic-stress disorders. DSM-5 favours a single broad description of PTSD; ICD-11 proposes two ‘sibling’ disorders: a narrow, six-symptom conceptualization of PTSD, and a 12-symptom conceptualization of Complex PTSD (CPTSD). The objectives of this study were to: (1) compare prevalence rates of these disorders; (2) evaluate alternative factor models using confirmatory factor analysis; and (3) assess the concurrent validity of the best performing models for all three disorders. A Welsh clinical sample completed self-report measures designed to capture the symptoms of PTSD/CPTSD according to the ICD-11, and DSM-5 PTSD, as well as to collect data on depression, panic, negative trauma cognitions, and resilience for concurrent validity analyses. Significantly more people met self-report diagnosis of PTSD according to DSM-5 than ICD-11 PTSD and CPTSD; the level of agreement between the two classifications was low. The ICD-11 factor models provided excellent fit of the data. The DSM-5 model provided unsatisfactory fit; however, an alternative six-factor ‘Anhedonia’ model yielded excellent fit. Model fit was superior for the ICD-11 models compared to the Anhedonia model. Concurrent validity analyses were similarly positive across both models. Results favoured the performance of the ICD-11 proposals.

ICD-11 and DSM-5: Prevalence, Overlap and Stability of Posttraumatic Stress Symptoms over Time in Young Survivors of the 2011 Norway Attacks
(Assess Dx, Acute-Assess Dx-Terror, Lifespan, M, Industrialized)

Hafstad, Gertrud, PhD1; Dyb, Grete, MD PhD2; Thoresen, Siri, PhD3; Wentzel-Larsen, ToRe, MSc1; Maercker, Andreas, PhD, MD1

1Norwegian Centre for Traumatic Stress Studies, Oslo, Norway
2Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Norway
3University of Zurich, Zurich, Switzerland

The conceptualization of PTSD in the upcoming ICD-11 differs in many respects from the diagnostic criteria in the new DSM-5. The consequences of these differences are still largely unknown. This study investigates the concordance between the two diagnostic systems and compared the stability of the diagnoses over a period of three years following a mass shooting. Young survivors of the 2011 Norway attacks were interviewed at 4-6 months (N=325) and 15-18 months (N=285) and 32 months (N=261) after the shooting. PTSD was assessed with the UCLA PTSD-R1 adapted for DSM-5, and a subset was used as diagnostic criteria for ICD-11. We calculated and compared diagnostic prevalence, overlap and examined factor structure of the DSM-5 and proposed ICD-11 PTSD criteria. We explored loss and gain of diagnostic cases from time point to time point, as well as testing the equality of form and equality of factor loadings to evaluate the stability of the factor structure over time. PTSD prevalence did not differ significantly at any time point between the DSM-5 and the ICD-11 diagnoses. Although there was a considerable overlap between the diagnoses, a large proportion of individuals met the criteria for only one of the diagnostic system. Indicators of diagnostic stability over time will be presented. The data presented may provide input to the ongoing ICD-11 process.
Symposium
Thursday, November 10
4:15 PM to 5:30 PM
San Antonio Ballroom B

Innovative Interventions: How to Make Therapy More Accessible

Freedman, Sara, PhD¹; Kassam-Adams, Nancy, PhD²
¹Bar-Ilan University, Ramat Gan, Israel
²University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA

Three different research groups will describe results from a treatment acceptability study, and two randomized controlled trials. These three manualized interventions were developed to overcome barriers to care in differing populations. Preliminary data regarding a parent guided intervention for injured children, outcomes for an online parenting program for deployed families, and pilot data from an online virtual reality treatment for adult survivors of motor vehicle accidents, will be presented. All these studies have in common new delivery pathways that allow more accessibility for populations who might otherwise not receive therapy. In addition they focus on the prevention of PTSD and concomitant problems. This symposium will discuss the results of these three trials, and their implications for the field.

GETSmart: Guided Use of Smart Phone Apps to Reduce PTSD Symptom Severity
(Clin Res, Prevent-Tech-Mil/Vets, Adult, M, Industrialized)

Roy, Michael, MD MPH; Highland, Krista, PhD; Costanzo, Michelle, PhD
Uniformed Services University, Bethesda, Maryland, USA

PTSD symptoms are common in military service members (SMs), but stigma impedes treatment initiation. Therefore, we developed and tested the desirability and efficacy of a smartphone app-based program to reduce the severity of subthreshold PTSD symptoms. We consented and randomized 144 participants with PCL scores of 28 to 49 to resilience enhancement (REG) vs. control (CG) groups. All received six apps to promote social engagement, stress reduction, and psychoeducation, followed by six weeks of daily texts, which directed app use for REG participants, or featured inspirational quotes for the CG. All participants reported PCL and PHQ-9 scores via a secure website pre- and post-intervention. Participants (54% male) had an average age of 35.5 and were 56% Non-Hispanic White, 18% Black, and 11% Hispanic. Most were active duty (70%) or reserve component (20%), with 2% retired and 8% family members. The mean baseline PCL and PHQ-9 were 36 and 6.9, respectively, and equivalent between groups. With follow-up on-going, to date 112 have completed post-intervention and 3-month assessments. Participants named breathing retraining, yoga, and meditation as the most helpful and often-used apps. Both groups had statistically significant decreases in PCL (~9 points) and PHQ-9 (~2.3) scores.

A Self-directed Parenting Program for Military Families: Outcomes of the After Deployment, Adaptive Parenting Tools Online Program.
(Tech, Fam/Int-Prevent-Mil/Vets, Lifespan, M, Global)

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

Almost two million children have experienced the deployment of a parent to recent conflicts; deployment is associated with risk for children’s behavioral and emotional problems. Effective parenting practices promote children’s healthy adjustment in stressful contexts. We report outcome data from After Deployment, Adaptive Parenting Tools/ADAPT, a parenting program for deployed families with 5-12 year old children. Study participants were 112 active-duty, Reserve Component, and veteran families (84% enlisted; 63% Army; 34% male parents; 55% boys). Families were randomly assigned to ADAPT online (50%) or a no-treatment control (50%). Preliminary outcome analyses indicate intent-to-treat main effects of ADAPT online on parents’ improved parental locus of control and mindfulness, with stronger effects benefitting mothers (η² = .073, d = .561; η² = .094, d = .640). Parenting behaviors exhibited a medium effect benefitting military personnel (η² = .087, d = .617; η² = .037, d = .392) measured with the Alabama Parenting Questionnaire. Finally, measured by the...
Strengths and Difficulties Questionnaire, there were similar results showing a differential benefit of ADAPT for girls in reducing problem behaviors for military families relative to boys, (η² = .054, d = .478). Results provide evidence for the potential of online parenting programs to show utility for military families.

iVR - An Internet Based Virtual Reality Early Intervention for PTSD
(Prevent, Prevent-Tech, Adult, M, Industrialized)

Freedman, Sara, PhD
Bar-Ilan University, Ramat Gan, Israel

The uptake of effective treatments for PTSD is relatively low. The primary goal of this project is to overcome some of the common barriers to treatment amongst recent survivors of motor vehicle accidents, by combining evidence-based intervention (CBT) with that of Internet and Virtual Reality technology. This five-week manualized early intervention allows the patient and therapist to meet in an online virtual therapy space. Each session includes multimedia scenarios, as well as Virtual Reality for exposure exercises. Patients can use the secure internet site freely between sessions. Recent symptomatic survivors of motor vehicle accidents, are randomly assigned to internet Virtual Reality therapy (iVR) or waitlist control. Patients are followed up for one year post treatment by assessors blind to treatment condition. Results indicate that pilot patients show significant reduction in PTSD symptoms at follow up. PTSD can become a chronic and expensive condition. If this web-based treatment is shown to be acceptable and effective, then this will impact the rates of PTSD development. Web-based virtual reality treatments may allow for flexibility in the planning and implementation of trauma focused CBT early after a traumatic event.

A Parent-led Intervention to Promote Pediatric Injury Recovery: Initial Results
(Prevent, Acc/Inj-Acute-Health, Lifespan, M, Industrialized)

Marsac, Meghan, PhD1; Weiss, Danielle, MS2; Kohser, Kristen, MSW2; Kassam-Adams, Nancy, PhD1
1University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
2Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

Millions of children incur injuries each year resulting in substantial physical and psychological challenges for recovery. Given the limited resources available to promote full physical and emotional recovery post-injury, evidence-based cost effective interventions are necessary to support as many children as possible (i.e., those who may not have access to mental health providers or whose psychological symptoms do not meet diagnostic levels). The Cellie Coping Kit for Injury Intervention is an affordable, transportable, parent-guided intervention that can be tailored to each family to provide concrete, evidence-based strategies to manage injury-related physical and psychological challenges. This presentation will review intervention content and results of a pilot study which examined acceptability, feasibility, and initial learning outcomes in 24 child-parent dyads. Results are promising: families found the intervention acceptable and feasible (e.g., 90% of families used the kit; 100% found materials trustworthy; 90% would use the kit again, 100% would recommend the kit to others). Many families reported learning new information (e.g., anxiety related to injury) and skills (e.g., communicating about the child’s injury, problem solving). Future investigations should assess changes targeted intervention mechanisms (i.e., coping strategies, long-term health outcomes).

Symposium
Thursday, November 10
4:15 PM to 5:30 PM
Houston Ballroom A

Enhancing Quality of Online Information to Support Treatment Engagement
(Tech, Clinical Practice, Adult, M, Industrialized)

Hamblen, Jessica, PhD
VA National Center for PTSD/White River Junction VA Medical Center, White River Junction, Vermont, USA

Technology allows information to be available online so that individuals can access state of the art information at their convenience. It also allows content to be tailored to the individual user. In this...
symposium we discuss how to improve the quality of information conveyed to patients. Using data from a national survey, we will provide an overview of the types of online information that are valued most highly by PTSD patients when facing treatment decisions. We also provide examples of how to best convey information about treatment effectiveness and how to use a web-based format to customize treatment information for individual users. We end by presenting results from a trial that used online PTSD screening and education with approximately 850 Reserve and National Guard and Active Component servicewomen to increase patient treatment engagement.

Using Graphics to Communicate Information about PTSD Treatment Effectiveness to Patients
(Train/Ed/Dis, Res Meth-Tech, Adult, M, Industrialized)

Harik, Juliette, PhD¹; Grubbs, Kathleen, PhD²; Schnurr, Paula, PhD³
¹National Center for PTSD, White River Junction, Vermont, USA
²San Diego VA/University of San Diego, San Diego, California, USA
³National Center for PTSD, Department of Veterans Affairs, White River Junction, Vermont, USA

To make informed decisions about PTSD treatment, it is important that patients understand the risks and benefits of treatment options. This is especially important when patients receive treatment information online, without the aid of a clinician to explain. Icon Arrays—graphical displays that show the proportion of patients who experience a certain outcome—are one of the most effective ways to convey treatment benefits and are well suited for online learning formats. With the goal of creating a series of icon arrays showing the proportion of patients who no longer meet PTSD criteria after various evidence-based treatments (CPT, PE, EMDR, Stress Inoculation training, and SSRIs), we conducted a systematic review and meta-analysis of 47 randomized controlled trials. Most studies (74.5%) reported loss of diagnosis at posttreatment. However, studies were inconsistent in how they defined and computed loss of diagnosis and how they handled missing data. We will discuss how each of these issues influenced the resulting icon arrays. We will offer suggestions on how to create and critically evaluate online icon arrays and focus on how to optimize effectiveness information for patients.

Customizing an Online PTSD Treatment Decision Aid to Improve Patient-Centered Care
(Practice, Tech-Train/Ed/Dis, Adult, M, Industrialized)

Merrick, Cybele, MA; Bippart, Victoria
VA National Center for PTSD, Executive Division, White River Junction, Vermont, USA

Patient-centered care takes into account patients’ preferences, needs, and values in making treatment decisions. The National Center for PTSD is developing an online PTSD decision aid that maximizes patients’ preferences as they consider potential treatments. Using examples from this decision aid, we will review several strategies that can be used to tailor online treatment information to individual patients, including: (1) Questions querying patient needs and concerns, the results of which can be suggest treatments that are consistent with the patients’ preferences; (2) A “thumbs-up” liking feature that can further refine results and help patients see which treatments have features that matter the most to them; (3) Use of diverse information formats (video, text, graphics), which allows patients to select the learning format that best suits their individual needs, and (4) A printable summary of the patient’s preferences, which can be shared with a provider and facilitate treatment planning. Implications for how these features can be utilized in other online products and how providers can best use these features with patients will be discussed.

Online Interventions to Promote PTSD Treatment Engagement for a Community Sample of OEF/OIF/OND Reserve/ National Guard and Active Component Servicewomen
(Train/Ed/Dis, Tech, Adult, M, Industrialized)

Sadler, Anne, PhD¹; Mengeling, Michelle, PhD²; Torner, James, PhD³; Booth, Brenda, PhD⁴
¹Iowa City VAMC--CADRE, Iowa City, Iowa, USA
²CADRE, Iowa City VA Health Care System, Iowa City, Iowa, USA
³University of Iowa, Iowa City, Iowa, USA
⁴University of Arkansas, Little Rock, Arkansas, USA
This study explored whether online screening and tailored education (WEB-ED) about post-deployment mental health (MH) and readjustment conditions increases care activation in servicewomen. Participants included a community sample of 852 Operation Enduring Freedom/Iraqi Freedom/New Dawn (OEF/OIF/OND) active component (AC, n=273) and Reserve and National Guard (RNG, n=577) servicewomen returning from Iraq/Afghanistan deployment(s) within the preceding 3 years. Education was unique to each screener, e.g., what is PTSD, treatment options, resource links, and points-of-contact to their closest/preferred VA. Most (74%) experienced combat. Compared to RNG, AC more frequently acknowledged MST, PTSD, anger, IPV, family-readjustment, and prescription misuse but had similar rates of TBI and substance use disorder. “As a direct result of WEB-ED,” 26% reported they would follow-up with a VA provider and 21% with an non-VA/DoD provider. Many (41%) indicated WEB-ED furnished new information and 39% believed their results printout made it easier to seek care. No differences in care activation or WEB-ED satisfaction were found by service-type. Online interventions show promise as accessible, cost-effective means of identifying post-deployment care needs, preferences, and barriers of servicewomen and in activating them to seek care. Baseline and 6 month follow-up data will be presented.

Preferences for Decision Making Involvement and Information about PTSD Treatment: A Nationally Representative Online Survey of Adults Who Screened Positive for PTSD
(Tech, Clinical Practice, Adult, M, Industrialized)

Hamblen, Jessica, PhD1; Hundt, Natalie, PhD2; Bernardy, Nancy, PhD1; Norman, Sonya, PhD1
1VA National Center for PTSD/White River Junction VA Medical Center, White River Junction, Vermont, USA
2MEDVAMC, Houston, Texas, USA
3National Center for PTSD, White River Junction, Vermont, USA
4National Center for PTSD, San Diego, California, USA

This study examined preferences for decision making involvement and information about PTSD treatment in 301 adults who screened positive for PTSD. We conducted an online survey assessing desired involvement in PTSD treatment decisions (level of involvement, timing) and treatment information (content, format). Almost all respondents (97%) desired involvement in treatment decisions. Most (64%) wanted 30-60 minutes to learn about treatments and 80% wanted at least one to three days to consider their options. When asked what format they would like to learn about PTSD treatment, 48% said they wanted information online. In person discussion with a provider and online information was rated as preferred relative to other learning formats (e.g., apps, print material). With respect to type of information, 74% said they wanted a written description of each treatment and 69% wanted to hear a doctor describing the treatment. Over half also wanted to hear a patient describe their experience with the treatment. These results shed light on what information is—and is not—important to patients who are facing PTSD treatment decisions and can inform the development of future online decision support tools.

Panel Presentation
Thursday, November 10
4:15 PM to 5:30 PM
Dallas A1

Interprofessional Perspectives on Trauma-Informed Care
(Pub Health, Clin Res-Clinical Practice, Lifespan, I, Industrialized)

McBain, Sacha, Doctoral Student1; Gradus, Jaimie, ScD2; McKinney, Robert, LCSW3; Stokes, Yehudis, RN4; Vasquez, Jan, MPH5
1Pacific Graduate School of Psychology at Palo Alto University, Palo Alto, California, USA
2National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
3University of Alabama, Tuscaloosa, Alabama, USA
4University of Ottawa, Ottawa, Ontario, Canada
5San Jose State University, San Jose, California, USA

In this panel, we will review recent theory and guidelines for the implementation of trauma-informed care (TIC) and provide examples of
Neuroimaging Two Paper Session

Cerebral Networks Underlying Hypersensitivity to Salient Sounds in Posttraumatic Stress Disorder
(Bio Med, Neuro, Adult, M, Industrialized)

Naegeli, Christoph, MSc1; Zeffiro, Thomas, MD, PhD2; Hassanpour, Katayun, MD1; Schick, Matthias, MD1; Orr, Scott, PhD1; Mueller-Pfeiffer, Christoph, MD4

1University Hospital Zurich, University of Zurich, Zurich, Switzerland
2Massachusetts General Hospital, Boston, Massachusetts, USA
3Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
4Zurich University, Zurich, Switzerland

Patients with PTSD are often overly sensitive and responsive to unexpected or potentially threatening stimuli in the environment. We have investigated whether hyper-responsiveness to unexpected sounds in PTSD is mediated by alterations in attention, salience, or auditory networks. Subjects with (n=29) and without PTSD (n=25) listened to 500 msec, 95 dB pure tone or white noise stimuli presented every 30 sec during concurrent fMRI and psychophysiological recording. PTSD subjects perceived sounds as similarly loud, but more aversive, than did Non-PTSD subjects (p=0.090). Heart rate, skin conductance and pupil size responses to white noise, relative to pure tones, were larger in PTSD, compared to Non-PTSD subjects (p’s ≤ 0.013). PTSD, compared to Non-PTSD, subjects exhibited larger neural responses to white noise in right intraparietal sulcus and bilateral precentral gyrus (p’s < 0.05, FWE-corrected). PTSD subjects also exhibited larger neural responses to white noise, compared to pure tones, in left temporoparietal junction (p < 0.05, FWE-corrected). Sound-related neural responses were similar between groups in the salience and auditory networks. Hypersensitivity to unexpected, salient sounds in PTSD seems mediated by altered cerebral attention mechanisms rather than altered auditory perception or salience detection.

Neither Here nor There: Traumatic Stress, Oscillation, and the Role of the Cerebellum
(Clin Res, CPA-Neuro, Adult, I, Industrialized)

Minshew, Reese, PhD1; D’Andrea, Wendy, PhD1; Siegle, Greg, PhD2
1New School for Social Research, New York, New York, USA
2University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, USA

Survivors of traumatic stress report symptoms of hyperarousal in the form of anxiety. Emerging evidence suggests that hypoarousal such as numbing is also problematic for survivors. However, few survivors report being constantly hyperaroused or constantly hypoaroused, suggesting the possibility that the pathology resulting from traumatic stress may be due to the oscillation between hyper- and hypo-arousal and lack of time spent in the normative range of arousal. Moreover, studies the cerebellum suggest that this brain region may function as an oscillation regulator, preventing large swings in behavior. This study utilizes multi-level modeling to delineate differences in cerebellar functioning during an emotional listening task based on history of childhood abuse. Participants (N=17) completed a
Childhood Trauma Questionnaire and then participated in a passive listening task while BOLD signal in the culmen of the cerebellum was monitored. Multi-level modeling reveals a cross-level interaction between time in the task and history of physical abuse on culmen activation (p < .001), with individuals reporting more childhood trauma exhibiting greater activation of cerebellar functioning. These findings suggest that the cerebellum is implicated in affective arousal during a listening task, and that traumatic stress impacts the activity of the cerebellum.

Positive Outcomes of Transcranial Magnetic Stimulation in a Rodent Model of PTSD
(Tech, Anx-Bio Med-Bio/Int-Theory, N/A, M, N/A)

Legrand, Marc, PhD Student1; El-Hage, Wissam, PhD, MD2
1INSERM U930 ERL CNRS 3106, Equipe 4 Troubles Affectifs, Tours, Centre, France
2CHRU de Tours & Inserm U930, Tours, Centre, France

Despite solid knowledge on the underlying pathophysiology of PTSD (hyperactivation of ventral limbic structures over prefrontal areas), current therapeutic approaches remain non effective for many patients. The goal of this study was to assess the efficacy of applying repetitive transcranial magnetic stimulation (rTMS) on altered neuronal networks in an animal model. 128 male mice underwent a foot-shock traumatic experience to induce a PTSD phenotype. Magnetic stimulation was focally applied over prefrontal structures in a 5-day long protocol at excitatory parameters (12.5 Hz, 1.6 Tesla), in comparison to a classic antidepressant treatment. rTMS elicited beneficial effects, i.e. diminishing avoidance toward traumatic cues, enhancing memory performance and decreasing the hallmark freezing behaviors during re-exposure to the traumatic context. These beneficial effects of rTMS were observed with greater magnitudes than those produced by the antidepressant. These findings highlight the potential of rTMS and its neuronal-based effects as a therapeutic alternative to current methods.

Childhood Maltreatment and Social Functioning later in Life: a Neurobiological Approach

Elzinga, Bernet, PhD1; van Schie, Charlotte, PhD Candidate1; van Harmelen, Anne-Laura, PhD2; Crone, Eveline, PhD1
1Leiden University, Leiden, Netherlands
2Cambridge, Cambridge, CB2 2QO, United Kingdom

Background: Childhood maltreatment often goes along with impaired interpersonal functioning later in life. One underlying mechanism might be related to difficulties in mentalizing, the ability to understand other people’s thoughts and emotions. Using the ‘Reading-the-Mind-in-the-Eyes’ Task (RMET) this study investigated the relationship between different types of childhood maltreatment (specifically parental emotional maltreatment) and the neural correlates of mentalizing. Method: The RMET was performed in an MRI scanner by 46 young adults (Age: M = 18.7 yrs, SD = 1.46) selected on a broad range of reported parental emotional maltreatment (ranging from none to severe, assessed with CTQ). Results: While no behavioural impairments were found, the severity of sexual abuse was related to increased activation within the left inferior frontal gyrus (IFG) during mentalization (FWE cluster extent threshold corrected with p < .001). Connectivity analyses indicated that the left IFG was functionally related to other regions within the mentalization network, including right anterior TPJ and right insula. Conclusion: Being sexually abused in the context of parental emotional maltreatment is related to an increase in activation of the left IFG during mentalization, which could indicate a less automatization and/or altered strategies for understanding other people’s thoughts and emotions.
Oral Paper Presentations
Thursday, November 10
4:15 PM to 5:30 PM
Houston Ballroom C

Treatment Two Paper Session

Effective Treatments for PTSD: A Meta-analytic Review
(Practice, Clin Res-Cog/Int-Train/Ed/Dis, Adult, M, N/A)

Maddoux, John, MA
Texas Woman's University, Denton, Texas, USA

Posttraumatic stress disorder (PTSD) is a psychological disorder that occurs following a psychological trauma, which consists of experiencing or witnessing a life-threatening situation. In an effort to evaluate effective treatments for a variety of psychological disorder, Division 12 (Clinical Psychology) of the American Psychological Association (APA) create a task force for evaluating empirically supported treatments (ESTs), which has focused on 7 treatments for PTSD, including Cognitive Processing Therapy (CPT), Present Centered Therapy (PCT), Prolonged Exposure (PE), Eye Movement Desensitization and Reprocessing (EMDR), Stress Inoculation Training (SIT), Seeking Safety, and Psychological Debriefing. To date, there has not been a meta-analysis conducted examining the efficacy of these treatments in comparison to one another. This paper aims to fill this gap in the literature by conducting a meta-analysis on PTSD-related treatment outcomes by each of these treatment protocols. Specific interventions examined included CPT, PE, EMDR, and PCT. Utilizing both random and mixed effects meta-analysis models, this study found that CPT had significantly greater treatment outcomes compared to EMDR and PCT, but similar outcomes to PE. Implications for practice and policy are discussed.

Evidence-Based Psychotherapy Utilization among Iraq and Afghanistan Combat Veterans with PTSD
(Clin Res, Clinical Practice-Mil/Vets, Adult, M, N/A)

Myers, Ursula, MS, PhD Student; Norman, Sonya, PhD; McKnight, Aaron, Undergraduate; Angkaw, Abigail, PhD
1San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology, San Diego, California, USA
2VA San Diego Healthcare System / UCSD, San Diego, California, USA

Posttraumatic stress disorder (PTSD) is the most common mental health disorder among Iraq and Afghanistan veterans. Despite available effective treatments for PTSD in the Veterans Administration (VA) Healthcare System, treatment utilization and completion is low. The goal of this study was to use the Andersen Behavioral Model of Health Care Utilization to understand how person-level demographic, psychosocial, and psychiatric variables and treatment-setting systems variables related to evidence-based treatment utilization, completion, and symptom improvement. Returning veterans with PTSD (n = 311) were recruited pre-treatment and their treatment utilization was tracked for one year. Non-modifiable predisposing characteristics (e.g., age, gender) were not significantly associated with utilization, completion, or symptom improvement. Modifiable enabling resources (distance to the hospital, treatment format) and need factors that treatment can target (substance use disorders; problems with sleep, anger, and family members/significant others) were associated with lower treatment utilization, completion, and worse symptom improvement. These results suggest that non-modifiable variables may not drive the rates of low utilization and completion, and underscores the importance of examining other variables that can be modified by treatment such as enabling resources and need factors.
Dissemination of Community-based TF-CBT in Singapore

Kwek, Jean, MPsych1; Soh, Lynn, MSc1; Lim, Xin Yi, MPsychn; Sim, Jasmine, BSc Hons Psychology1; Teo, Mercy, MSW1; Fitzgerald, Monica, PhD2
1KK Women's and Children's Hospital, Singapore, Singapore
2University of Colorado at Boulder, Boulder, Colorado, USA

Dissemination research proposes incorporating elements of training and on-going supervision in implementing evidence-based interventions (Stirman et al., 2010). This paper describes the dissemination effort of a training and supervision model for community-based Trauma-focused Cognitive Behavioural Therapy (TF-CBT) in Singapore – the Temasek Cares Kids in Tough Situations (TC-KITS) project. Prior to dissemination, stakeholders were engaged in the planning process to boost organisational readiness. 67 community therapists attended basic and advanced TF-CBT training with an accredited trainer. They also received on-going web consultation and direct supervision with the trainer and local supervisor respectively. Supervision sessions focused on trauma-informed conceptualisation, treatment planning, and skills acquisition. Treatment fidelity was monitored with a practice checklist. Peer supervisors were also selected and trained to ensure the sustainability of community-based TF-CBT. To date, 280 children have participated in the project. To understand the impact of this training and supervision model, intervention outcomes were measured using standardised questionnaires. Preliminary analyses revealed significant improvements in child- and parent-reported trauma-related difficulties, suggesting feasibility of the current model in disseminating community-based TF-CBT in Singapore.

Utilizing Online Role-Plays with Emotionally Responsive Virtual Patients to Train Mental Health Students in Conducting Prolong Exposure Therapy.
(Train/Ed/Dis, Anx-Clinical Practice-Tech-Train/Ed/Dis, Prof, I, N/A)

Greene Megaw, Meredith, MA, MHC; Albright, Glenn, PhD
Baruch College, The City University of New York, New York, New York, USA

One in five Americans experiences a traumatic event each year with more than 8 million going on to develop post-traumatic stress reactions. Exposure and processing painful memories is at the heart of a client’s recovery, as seen in the evidence-based Prolonged Exposure (PE) for PTSD. Despite the efficacy of PE, expert clinicians report and research shows considerable reluctance of clinicians to employ exposure-based interventions in their practices. Lack of adequate training in and understanding of exposure methods, and discomfort in evoking strong emotional reactions in clients have been cited as causes of clinician resistance to using PE. This presentation overviews the impact of new simulation technology being used to augment PE clinical training. The learning involves practicing PE role-play conversations with emotionally responsive virtual patients who have memory and personality, and will react like real clients with PTSD. In addition to a demo, data will be presented showing the impact of the simulation on eighteen second-year clinical students whose paired sample t-test scores revealed significant increases (p=.001) pre- to post-training in all composite variables including preparedness, likelihood (behavioral intent) and self-efficacy to conduct PE.
Friday, November 11

Keynote Address
Friday, November 11
8:50 AM to 9:50 AM
Dallas B/C

Epigenetic Regulation of Stress Genes and their Role in Stress-Related Psychiatric Disorders: FKBP5 as an Example
(Bio Med, Gen/Int-Genetic, Lifespan, M, Global)

Binder, Elisabeth, MD PhD
Emory University, Atlanta, Georgia, USA

Stress responses and related outcomes vary markedly across individuals. Elucidating the molecular underpinnings of this variability is of great relevance for developing individualized prevention strategies and treatments for stress-related disorders. An important modulator of stress responses is FKBP5. FKBP5 acts as a co-chaperone that modulates not only glucocorticoid receptor activity in response to stressors but also a multitude of other cellular processes in both the brain and periphery. Notably, the FKBP5 gene is regulated via complex interactions among environmental stressors, FKBP5 genetic variants, and epigenetic modifications of glucocorticoid-responsive genomic sites. These interactions can result in FKBP5 disinhibition that has been shown to contribute to a number of aberrant phenotypes in both rodents and humans and possibly contributes to both behavioural and medical symptoms associated with stress exposure. Consequently, FKBP5 blockade may hold promise as treatment intervention for stress-related disorders, and recently developed selective FKBP5 blockers show encouraging results. Although risk for stress-related disorders is conferred by multiple environmental and genetic factors, the findings related to FKBP5 illustrate how a deeper understanding of the molecular and systemic mechanisms underlying specific gene-environment interactions may provide insights into the pathogenesis of stress-related disorders.
CONCURRENT SESSION FIVE

Invited Symposium  
Friday, November 11  
10:15 AM to 11:30 AM  
Dallas B/C

MOVING FROM RESEARCH TO PRACTICE TO MEET THE NEEDS OF TRAUMA-EXPOSED POPULATIONS ACROSS THE GLOBE  
(Train/Ed/Dis, Clin Res-Clinical Practice-Comm/Int-Cul Div, Prof, I, Global)

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Many effective practices have been developed, tested, and are now being disseminated and implemented in services around the world. Meaningful dissemination and implementation requires attention to organizational, leadership, and therapist factors. In this symposium the presenters will present data and experiences from four large scale implementation efforts to integrate the adoption of evidence-based mental health interventions in usual care contexts. The presentations cover different settings such as community service agencies and mental health clinics, both child and adult target populations, different interventions that were implemented, including Cognitive Processing Therapy, Prolonged Exposure and Trauma-Focused CBT. The implementation projects were conducted in high and low resource countries. Together the studies show that implementing evidence based practice in usual care organizations is possible, but requires activities targeting multiple levels of the service system so that critical barriers are addressed.

DON'T FORGET THE BROKERS! ONE POTENTIAL STRATEGY FOR INCREASING REACH OF TRAUMA-FOCUSED EVIDENCE-BASED TREATMENTS (EBTs) FOR YOUTH AND THEIR FAMILIES  
(Train/Ed/Dis, Clinical Practice-Commun, Child Welfare, I, Industrialized)

Hanson, Rochelle, PhD; Saunders, Benjamin, PhD  
Medical University of South Carolina, Charleston, South Carolina, USA

While the Learning Collaborative trains clinicians in EBTs, it does not directly impact referrals nor increase EBT awareness amongst non-clinical (broker) professionals involved in service delivery for trauma-exposed youth. The Community-Based Learning Collaborative (CBLC), an LC modification, offers a potential way to bridge this gap, by providing integrated training/implementation strategies for clinicians and brokers. The broker curriculum targets screening, referral, case monitoring and interprofessional collaborations (IPC) to sustain EBT implementation. This NIMH study examines strategies and their relationships with IPC and sustained use of trauma-focused practices. Participants were recruited from one of 11 CBLCs conducted as part of a statewide implementation of trauma-focused practices. 164 participants completed an initial survey that assessed feedback about CBLC strategies, use of trauma-focused EBTs, IPC, and implementation climate. While the majority (80.4%) of clinicians and clinical agencies (84.4%) reported use of trauma-focused EBTs, significant differences by participant role (broker, clinician, senior leader) emerged, with brokers reporting the lowest rates of implementation support and changes in trauma-informed practice on the Implementation Climate Scale, Implementation Leadership Scale, and Trauma-Informed System Change Scale, respectively (all p<.05).
Testing a Comprehensive Model of Implementation for EBPs for PTSD: A National Investigation in 38 US VA Residential Settings across Three Yearly Time Points
(Train/Ed/Dis, Train/Ed/Dis-Mil/Vets, Adult, I, Industrialized)

Cook, Joan, PhD1; Simiola, Vanessa, MA2; Thompson, Richard, PhD3; Schnurr, Paula, PhD4; Ruzek, Josef, PhD5
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The system-wide training initiatives of evidence-based psychotherapies (EBPs) in the U.S. Department of Veterans Affairs (VA) afford a unique opportunity to study implementation and sustainability. A longitudinal investigation utilizing a theory-based model guided yearly quantitative and qualitative data collection from over 200 providers in 38 PTSD residential treatment programs regarding their implementation and sustained use of two EBPs, Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT). Generally, rate of implementation of PE and CPT increased over the course of three yearly time points. Nearly all programs were using the full protocol or components of these treatments with some to all of their patients. In a few instances, one or both treatments had been de-adopted due to a variety of reasons including organizational barriers (e.g., limited time and resources). There were significant links between implementation and sustaining over a three year period, although these links were somewhat weaker for PE than for CPT. Perceived characteristics of PE and structural organizational context predicted implementation of PE. Low provider openness predicted implementation of CPT. Implications for implementation in and outside of the VA health care system will be discussed.

Transferring Knowledge to Practice: Implementing TF-CBT in Norwegian Child Mental Health Clinics
(Train/Ed/Dis, Assess Dx-Clinical Practice-Complex-Train/Ed/Dis, Lifespan, I, Industrialized)

Skar, Ane-Marthe, PhD1; Ormhaug, Silje, PhD2; Granly, Lene, Sr Clin Psychologist3; Jensen, Tine, PhD4
1University of Oslo, Oslo, Norway
2Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Norway

After the 22 of July massacre in Norway in 2011 where 69 were killed, the government initiated a nationwide implementation of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) in mental health clinics in order to improve services for traumatized children and adolescents. So far, 227 therapists and half of the clinics in Norway are involved in this work. The implementation program follows the stages and core components model of Fixsen and colleagues. Preliminary results show that the therapists are able to deliver TF-CBT with fidelity and the clinical outcomes are good, with a reduction in post-traumatic stress symptoms from an average score of 27 before treatment to 10 after treatment (clinical cut-off = 12). Furthermore, 82 percent of the clinicians report positive attitudes to using evidence-based methods. Nonetheless one identified implementation challenge is “reach”, as a large part of the children with PTSS above clinical cut-off do not receive TF-CBT. In this presentation we investigate what facilitates and impedes successful implementation. First we address clinician’s fears that screening for trauma is upsetting with responses from 2000 screened children. Second, we look at the relationship between the therapists’ and leader’s attitudes towards evidence based treatments and reach. Implications for practice will be discussed.
Implementation of Cognitive Processing Therapy in the Democratic Republic of Congo

Kayser, Debra, PhD, ABPP1; Stappenbeck, Cynthia, PhD; Topolska, Monika, BA1; Robinette, Katie, MPH; Maroy, Viviane, BA2; Bolton, Paul, MB BS3; Bass, Judith, PhD, MPH6

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3International Rescue Committee, New York, New York, USA
4International Rescue Committee, Bukavu, South Kivu, Congo
5Johns Hopkins University Bloomberg School of Public Health, Scituate, Massachusetts, USA
6Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, USA

Despite high need for mental health care services for sexual violence victims in eastern Democratic Republic of Congo (DRC) few services exist. In DRC, adapted group Cognitive Processing Therapy-C (CPT-C) was effective in a prior randomized clinical trial at reducing PTSD and depression and improving functioning (Bass et al., 2013). The current trial examined implementation of CPT in health clinics in eastern DRC delivered in nonspecialized healthcare settings with reduced supervision support from US experts. Congolese health care workers (n=14) and supervisors (n=6) were trained in CPT-C. We assessed knowledge acquisition, treatment fidelity, and clinical outcomes. Using generalized estimating equation (GEE) we found symptoms significantly decreased, $b = -1.90$, 95% confidence interval (CI): -1.99, -1.82, $p < .001$. Participants in the implementation study reported lower symptom scores than those in the RCT, $b = -3.50$, 95% CI: -6.13, -0.87, $p < .01$. Amount of Change did not differ between the RCT and implementation studies, $b = -0.07$, 95% CI: -0.32, 0.19, $p = .61$. Results suggest with appropriate fidelity monitoring and supervision, complex cognitive behavioral therapies can be implemented outside of the supports of RCTs and be delivered in community health settings by paraprofessionals. Implications for larger scale scaling up will be discussed.

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Harnessing eHealth Technology to Improve Outcomes for PTSD Patients: A Public Health Approach to Treatment
(Tech, Pub Health, Adult, I, Industrialized)

Wilson, Sarah, PhD1; Beckham, Jean, PhD2

1VISN 6 MIRECC and Duke University Medical Center, Durham, North Carolina, USA
2Durham VA/HSR&D, Mid-Atlantic MIRECC, Duke University, Durham, North Carolina, USA

Many people living with posttraumatic stress disorder (PTSD) cannot access or are uninterested in traditional, face-to-face psychotherapy. In order to increase utilization of treatment for PTSD and co-occurring disorders, health care providers and organizations need to shift PTSD treatment orientation from a medical model to a public health model. Whereas the traditional medical model focuses on treatment content, a public health perspective of trauma treatment suggests that the context of treatment equally affects treatment impact. Impact is determined by Reach (how accessible a treatment is) × Efficacy (how well a treatment works). In order to maximize the impact of trauma treatment, eHealth technological approaches can overcome barriers to care, such as distance to health care facility. This symposium will span a range of innovative technological approaches to the treatment of PTSD and co-occurring disorders, including web-based treatments, telehealth interventions, and smartphone applications. Each presentation will describe technological components of the intervention and will additionally situate the intervention within a larger public health context.
A Preliminary Investigation of a Relapse Prevention Mobile Phone-based Application to Maintain Smoking Abstinence among Individuals with Posttraumatic Stress Disorder
(Clin Res, Clin Res-Pub Health-Sub/Abuse-Tech, Adult, I, Industrialized)

Hicks, Terrell, BS
Duke University Medical Center & Durham Veterans Affairs Medical Center, Durham, North Carolina, USA

INTRODUCTION: Smokers with PTSD have increased difficulty becoming abstinent. Contingency management (CM) approaches to smoking cessation have demonstrated short-term efficacy, but are limited by high rates of relapse. The pilot study’s goal was to evaluate the use of a mobile phone-based smoking cessation application (Stay Quit Coach [SQC]) in preventing relapse to smoking among individuals with PTSD. METHODS: Smokers (N=11) were randomized to 1) QUIT4EVER, an intervention combining mobile CM, smoking cessation counseling, medications, and SQC or 2) a contact control condition (CCC) identical to QUIT4EVER minus SQC. The primary outcome was smoking abstinence. RESULTS: At the end of treatment, 60% of QUIT4EVER and 100% of CCC participants were abstinent. All 3 QUIT4EVER quitters reported abstinence at 3 and 6 months; however, abstinence was confirmed by bioverification for 1 quitter at 6 months. Only 3 of 4 CCC quitters reported abstinence at 3 and 6 months, but abstinence was unconfirmed by bioverification. CONCLUSIONS: Results are consistent with previous CM trials with high rates of relapse following the removal of contingencies. SQC appeared to help one quitter maintain abstinence. While results should be interpreted with caution due to the small sample, there may be some benefit of SQC. Results suggest that additional approaches are needed to increase long-term abstinence.

Reach, Adoption, and Implementation of a Web-based Alcohol Intervention for Veterans with Problem Drinking and PTSD
(Clin Res, Sub/Abuse-Tech-Mil/Vets, Adult, I, N/A)

Brief, Deborah, PhD1; Enggasser, Justin, PhD1; Helmuth, Eric, PhD2; Rubin, Amy, PhD3; Roy, Monica, PhD4; Solhan, Marika, PhD1; Schreiner, Amy, PhD5; Heilman, Meagan, MA; Rosenbloom, David, PhD2; Keane, Terence, PhD4
1VA Boston Healthcare System & Boston University School of Medicine, Boston, Massachusetts, USA
2Boston University School of Public Health, Boston, Massachusetts, USA
3VA Boston Healthcare System, Boston, Massachusetts, USA
4National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA

Evidence-based interventions, delivered through web and mobile-based technologies, are positioned to make significant contributions to the healthcare of Veterans. This presentation will describe the development and launch of a self-management Web intervention (VetChange) designed for Veterans with problem drinking and PTSD symptoms. After completing a randomized clinical trial in which VetChange was found to reduce alcohol use, alcohol problem severity, and PTSD symptoms among Veterans who served in Afghanistan and Iraq, we created an updated, public website for Veterans of all generations. We will describe the website, outreach efforts, and preliminary data derived from an ongoing RE-AIM framework evaluation. This will include who the website has reached, how well it is being adopted (e.g., module completion), and the successes and challenges related to implementation (e.g., measured by use of self-management tools for alcohol use and PTSD). We will also present data on the effectiveness (changes in alcohol use, problem severity, PTSD symptoms, and life satisfaction) and maintenance of clinical gains over time for a subsample of returning Veterans using the website. Finally, we will review future goals for disseminating care for Veterans with problem drinking and PTSD through the use of web and mobile-friendly technologies.
Tailored Online Multiple Behavior Interventions Can Reduce Symptoms of PTSD in Veterans
(Res Meth, Anx-Depr-Tech-Mil/Vets, N/A, I, Industrialized)

**Jordan, Patricia, PhD**  
VA Pacific Islands Health Care System, Honolulu, Hawaii, USA

Frequently, veterans suffering from PTSD are reluctant or resistant to traditional treatment, and many who seek help live in rural areas with limited access to mental health care. Online interventions offer a means of increasing access to PTSD treatment. In this study, an innovative computerized tailored intervention (CTI) addressing three target behaviors was delivered to 57 veterans who reported mild to moderate PTSD symptoms. The CTI, focused on three health behaviors associated with PTSD—smoking, depression prevention, and stress management. The pre-post design feasibility study assessed the effectiveness of the CTI at baseline, 1- and 3-months. At 3 months, participants showed a significant reduction in PTSD symptoms, even though PTSD was not directly targeted by the multi-behavioral intervention. In addition, there were significant improvements in self-reported perceived stress and depression. These results and related conclusions will be presented. The improvement in PTSD symptoms and other co-action effects associated with the multi-behavioral intervention will be discussed.

**Prolonged Exposure for Posttraumatic Stress Disorder: A Non-inferiority Trial of Treatment Delivered in Person versus Home-Based Telemedicine**  
(Tech, Clin Res-Pub Health-Tech-Mil/Vets, Adult, I, N/A)

**Gilmore, Amanda, PhD**1; Tuerk, Peter, PhD2; Ruggiero, Kenneth, PhD1; Acieno, Ron, PhD2  
1Medical University of South Carolina, Charleston, South Carolina, USA  
2Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA

This is the first trial to evaluate the non-inferiority of prolonged exposure (PE) delivered via home-based telemedicine (HBT) compared to standard in person delivery of PE. Veterans recruited from a local Veterans Affairs Medical Center and affiliated community based outpatient clinics that met criteria for posttraumatic stress disorder (PTSD) were randomized to receive PE via HBT or in-person delivery. A total of 154 Veterans were recruited for the study. The majority of participants were male (96.1%) with a mean age of 42. Veterans completed assessments pre-treatment, mid-treatment, post-treatment, 3-months post-treatment, 6-months post-treatment. PE delivered via HBT was non-inferior to standard in person delivery in terms of on average number of sessions completed and reductions in PTSD and depression scores at 3- and 6 – months post-treatment. In-person was superior immediately post-treatment at reducing PTSD and depression symptoms. HBT has great potential to reduce patient burden associated with receiving treatment in terms of travel time, travel cost, lost work, and stigma. The finding that there was no loss in long term treatment quality or effectiveness associated with PE delivered via telemedicine has the potential to increase the reach of this evidence-based therapy not only for Veterans but for individuals with PTSD nationwide.

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**Theoretical Predictors of the Effectiveness of Web Interventions for Trauma**  
(Tech, Cog/Int, Adult, M, Industrialized)

**Yeager, Carolyn, PhD Student**1; Ruzek, Josef, PhD2  
1University of Colorado at Colorado Springs, Colorado Springs, Colorado, USA  
2VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

The focus of this symposium will be to present research results that examine the theoretical predictors of the effectiveness of web interventions for trauma. The first presentation by Carolyn Yeager, M.S., will discuss the results from her study that utilized a public health theory (Health Action Process Approach) of motivation to understand engagement with a trauma recovery web intervention. The HAPA model is based on social cognitive theory
Understanding Engagement with a Trauma Recovery Web Intervention Using the Health Action Process Approach (HAPA) Framework
(Tech, Clin Res-Pub Health, Adult, M, Industrialized)

Yeager, Carolyn, PhD Student; Benight, Charles, PhD
University of Colorado at Colorado Springs, Colorado Springs, Colorado, USA

Web interventions for the reduction of trauma related symptoms have been shown to be efficacious, but engagement can be a challenge. Because engagement is linked to improved outcomes, understanding factors that influence engagement is important to improve these interventions. The current longitudinal study is the first to utilize a public health theory (Health Action Process Approach) for modelling web intervention engagement. This model breaks human motivation down into motivational and volitional phases where planning serves as an important mediator between these phases. Trauma survivors (N = 216) from throughout the country were provided access to a theoretically based online trauma recovery web intervention for two weeks. Results indicated the motivational model explained 42% of the variance and perceived need (β = .34), outcome expectations (β = .28), self-efficacy (β = .15), and trauma symptoms (β = .21) were significant predictors of intention. In the volitional phase, results indicated for high levels of trauma symptoms, planning mediated the effects of intention on engagement, β = .20, 95% CI [.02, .46] (N = 55). These results reveal the importance of social cognitive factors and planning on the level of engagement with a trauma recovery web intervention.

Changes Self-Appraisal and Mood Utilizing a Web-based Recovery System on Posttraumatic Stress Symptoms: A Laboratory Experiment
(Tech, Affect/Int-Clin Res-Pub Health, Adult, M, Industrialized)

Benight, Charles, PhD; Shoji, Kotaro, PhD; Yeager, Carolyn, PhD Student; Mullings, Austin, MA Student; Dhamija, Svati, MS, PhD Student; Boult, Terrance, PhD
University of Colorado at Colorado Springs, Colorado Springs, Colorado, USA

The present study investigated the importance of change in coping self-efficacy appraisals and mood as predictors of improved symptoms following engagement with a web-intervention for trauma. Trauma survivors took part in a larger study investigating human computer interaction and machine learning. Participants were randomly assigned to one of two conditions: working on a relaxation module followed by a trauma triggers module and then the reverse a week later. Order was counterbalanced. A total of 43 participants completed two experimental sessions and rated mood (POMS) and their trauma coping self-efficacy appraisals before and at the end of each module. Changes in PTSD symptoms from baseline to end of the experiment (approximately 3 weeks) was the outcome variable. Results showed that when participants worked on relaxation before the triggers module that change in distressed mood during triggers was significantly correlated (r = .47) with T-CSE. In addition, T-CSE during the second session working through the triggers module was a significant predictor of overall change in the PCL (β = -.542). These results suggest that relaxation training may “set up” users of a web intervention to engage in a way that promotes changes in self-appraisals and mood promoting improved symptoms. Implications for technology development for trauma public health will be discussed.
Pre-treatment Difficulties and Resources as Predictors of Therapist Working Alliance in Online PTSD Treatment
(Clin Res, Rape-Tech, Adult, M, Industrialized)

Littleton, Heather, PhD1; Layh, Marlee, BS, BA1; Decker, Melissa, MA PhD Student1; Grills, Amie, PhD2
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2Boston University, Boston, Massachusetts, USA

Therapeutic alliance is associated with therapy engagement and outcomes for in-person and online treatment. However, limited work has identified predictors of alliance, particularly in online treatment. Among individuals with PTSD, the extent to which individuals appraise the trauma as causing difficulties/problems, as well as the extent to which they appraise themselves as having resources to facilitate recovery, may be related to alliance. The current study examined appraisals of trauma-related difficulties as well as inter and intrapersonal resources as predictors of alliance among 20 women who completed an online intervention for rape-related PTSD. To evaluate difficulties and resources, participants completed several open-ended questions at treatment initiation (e.g., strengths that will help them complete the program, the impact of the rape on their relationships). Responses were then coded for the presence of a number of difficulties and resources. Total number of difficulties and resources reported were entered as predictors of post-treatment alliance. Results supported that difficulties predicted all three aspects of working alliance – bond with the therapist, agreement on therapy goals and tasks to reach those goals (R2 = .17-.21). In contrast, resources were unrelated to working alliance. Implications for enhancing alliance in online treatment are discussed.

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Updates from the Psychiatric Genomics Consortium for PTSD: GWAS, EWAS, Expression, and Imaging

Amstadter, Ananda, PhD1; Nugent, Nicole, PhD2
1Virginia Institute for Psychiatric and Behavioral Genetics, VCU, Richmond, Virginia, USA
2Brown Medical School, Providence, Rhode Island, 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, and the field has also grown with regard to epigenetic, expression, and imaging genetic studies. 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. To date, over 21,000 individual samples are included in the main GWAS analyses. This symposium, organized by the Genomics Special Interest Group of ISTSS and the PGC-PTSD, is bringing together one speaker from four working groups of the PGC-PTSD. Dr. Caroline Nievergelt will be presenting the results from the group's GWAS meta-analysis. Dr. Monica Uddin will present for the Epigenetics working group on the epigenetic wide association study (EWAS) results. Dr. Allison Ashley-Koch will be presenting data from the Expression working group, and Dr. Rajendra Morey will be presenting on behalf of the Neuroimaging working group.
Genomics of PTSD from Large-scale Genome-Wide Association Studies (GWAS) across Military and Civilian Cohorts

Nievergelt, Caroline, PhD1; Davie, Shareefa, PhD2; Duncan, Laramie, PhD3; Maihofer, Adam, MS4; Ratanatharothorn, Andrew, MA PhD Student5; Daly, Mark, PGDip Psych6; Liberzon, Israel, MD7; Ressler, Kerry, MD PhD8; Koenen, Karestan, PhD9; PGC PTSD workgroup10

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2University of Cape Town, Cape Town, Rylands Estate, South Africa
3Harvard Medical School, Boston, Massachusetts, USA
4University of California, San Diego, La Jolla, California, USA
5Columbia University, Mailman School of Public Health, New York, New York, USA
6Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
7University of Michigan, Ann Arbor, Michigan, USA
8Harvard Medical School, Belmont, Massachusetts, USA
9Columbia University, New York, New York, USA
10PGC PTSD workgroup, San Diego, California, USA

Objective: Both environmental and genetic factors influence the development of post-traumatic stress disorder. Understanding the genetic architecture of PTSD will aid in treatment and prevention efforts. The psychiatric genomics consortium has assembled the largest collection of data suitable for genetic analysis of PTSD, including diverse male and female cohorts with civilian and military trauma. Methods: Over 33,000 subjects were included in our analyses. Trauma exposure and PTSD phenotypes were harmonized across studies. Each subject’s genetic ancestry was determined and analyses were performed within similar ancestry groups. SNP-based heritability was estimated using standard methods and GWASs were performed for each study and meta-analyzed across studies. Results: Similar effects of civilian and military trauma were observed across studies. SNP-based heritability in subjects of European ancestry was significant, but lower than previously reported from twin studies. In addition, results from the largest GWAS on PTSD to date, including >9,000 PTSD cases and >24,000 trauma-exposed controls, will be reported. Conclusions: Our findings show that PTSD is in part influenced by genetic factors, which may vary between females and males and different ancestries. Very large sample sizes such as collected by the PGC PTSD are needed to investigate the genetic architecture of PTSD.

DNA Methylation at NRG1 May Be an Epigenetic Biomarker of PTSD in Civilian Cohorts
(Bio Med, Genetic, Adult, M, N/A)

Ratanatharothorn, Andrew, MA PhD Student1; Kuan, Pei-Fen, PhD2; Armstrong, Don, PhD3; Boks, Marco, MD, PhD4; Logue, Mark, PhD5; Maihofer, Adam, MS6; Luft, Benjamin, MD7; Bremet, Evelyn, PhD8; Miller, Mark, PhD9; Ressler, Kerry, MD PhD10; Koenen, Karestan, PhD11; Guffanti, Guia, PhD12; Hauser, Michael, PhD13; Kimbrel, Nathan, PhD14; Vermetten, Eric, MD, PhD15; Stein, Murray, MD, MPH, FRCPC16; Baker, Dewleen, MD17; Nievergelt, Caroline, PhD18; Smith, Alicia, PhD19; Uddin, Monica, PhD20; PGC-PTSD, Epigenetics Workgroup, MD PhD21

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7Harvard Medical School, Belmont, Massachusetts, USA
8Harvard School of Public Health, Boston, Massachusetts, USA
9Duke University, Durham, North Carolina, USA
10Department of Veterans Affairs Medical Center, Veterans Integrated Service Network (VISN) 6 Mental Illness Research, Education and Clinical Center (MIRECC), Durham, North Carolina, USA
11Military Mental Health Research/UMC Utrecht, Utrecht, Netherlands
12University of California, San Diego; Center of Excellence for Stress and Mental Health, VASDHS, La Jolla, California, USA
13Emory University School of Medicine, Atlanta,
PTSD has been associated with epigenetic differences in samples drawn from both military and civilian cohorts, but it is unknown if there are epigenetic signatures that are unique to each population. We hypothesized that civilian and military cohorts would demonstrate divergent patterns of PTSD-associated differential DNA methylation, given their exposure to substantially different trauma types. To test this hypothesis, we conducted a meta-analysis of civilian (n=550) vs. military (n=597)-derived epigenome-wide association study (EWAS) data from cohorts participating in the EWAS arm of the PTSD psychiatric genomics consortium, measuring DNA methylation in whole blood, to identify genes that may be uniquely implicated in each type of cohort. Controlling for age, blood cell subsets, gender, and ancestry principal components, we identified a single CpG site, cg23637605, in NRG1 that showed a significant association with current PTSD (B= -0.245, 95% CI: -0.159 to -0.330, FDRp=0.01) in the civilian cohorts only; no CpG site was associated with PTSD in the military-only analysis. NRG1 has been previously implicated in schizophrenia and anxiety disorders, and appears to be uniquely implicated as a biomarker of PTSD in civilian cohorts. Work is ongoing to determine whether the distribution of trauma types within civilian vs. military cohorts may explain these initial observations.

Altered Subcortical Volumes in PTSD: Findings from PGC-ENIGMA PTSD
(Bio Med, Bio Med-Neuro, Adult, M, Industrialized)

Morey, Rajendra, MD; Lancaster, Sarah, BA; Dennis, Emily, PhD; McLaughlin, Katie, PhD; Peverill, Matthew, PhD; Sheridan, Margaret, PhD; Harpaz-Rotem, Ilan, PhD; Levy, Ifat, PhD; Wrocklage, Kristen, PhD; Abdallah, Chadi, MD; Thompson, Paul, PhD; Thomaes, Kathleen, MD; Veltman, Dick, MD PhD; Koch, Saskia, MSc; Geuze, Elbert, PhD; Stein, Dan, BSc(Med), MBC(B, FRCP, FRSSA, PhD, DPhil; Ipser, Jonathan, PhD; Ressler, Kerry, MD PhD; Stevens, Jennifer, PhD; van Rooij, Sanne, PhD; Logue, Mark, PhD

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6Yale University School of Medicine, National Center for PTSD, West Haven, Connecticut, USA
7Yale University School of Medicine, National Center for PTSD, New Haven, Connecticut, USA
8National Center for PTSD Clinical Neurosciences Division/Yale University Dept. of Psychiatry, West Haven, Connecticut, USA
9VU University, Amsterdam, Noordholland, Netherlands
10Academic Medical Center, University of Amsterdam, Amsterdam, Noord Holland, Netherlands
11Military Mental Health Research/UMC Utrecht, Utrecht, Netherlands
12University of Cape Town, Cape Town, Western Cape, South Africa
13University of Cape Town, Cape Town, Cape, South Africa
14Harvard Medical School, Belmont, Massachusetts, USA
15Emory University School of Medicine, Atlanta, Georgia, USA
16VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA

Introduction: Post-traumatic stress disorder has well-documented effects on the hippocampus Meta-analysis of multiple cohorts across sites can increase power to detect small effects, and demonstrate the robustness of effects across cohorts. Methods: Participants from 11 sites included 711 with PTSD and 815 trauma-exposed controls. Each site analyzed structural T1-weighted images following a standard protocol established by ENIGMA. FreeSurfer segmentations of subcortical regions, were meta-analyzed and individual regression results tested group differences in subcortical structure volume (controlling for age, sex, and scanner). Results: Across all subjects (N=1526), left (p=.0063) and right (p=.025) hippocampus were significantly smaller. In adult only subjects (N=1382), the results were more significant (left p=0.0016 and right p=0.022 respectively). The civilian sub-sample showed significant effects in the left hippocampus and right accumbens (p=0.0059 and p=0.033). Conclusions: Decreased hippocampal volume in PTSD has been found consistently where it plays a critical role in memory dysfunction. Decreased hippocampal volumes are also seen in schizophrenia, depression, and bipolar disorder, warranting additional work to determine PTSD-specific effects. New cohorts will
increase our power to investigate regional brain volumes and other neural phenotypes in the near future.

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**Dallas D2**

**Factors Influencing Long-term Functional Recovery among Warzone-Deployed Service Members**  
(Clin Res, Fam/Int-Mil/Vets-Gender, Adult, M, N/A)

**Morissette, Sandra, PhD**¹; Keane, Terence, PhD²  
¹The University of Texas at San Antonio, San Antonio, Texas, USA  
²VA Boston Healthcare System, National Center for PTSD, Boston, Massachusetts, USA

Facilitating functional recovery among returning service members following warzone deployments is of utmost importance. Understanding factors that influence long-term functioning are critical to developing appropriate and timely interventions. This symposium brings together three longitudinal research programs: Project SERVE, RINGS, and Project VALOR. Dr. Nathan Kimbrel will identify latent trajectory classes of functional impairment over a one year period in a sample of returning veterans, as well as predictors of latent class membership. Dr. Eric Meyer will examine the effects of DSM-5 PTSD symptoms clusters on disability over time, including differences between male and female veterans. Dr. Christopher Erbes will examine courses of adjustment among spouses/partners during a National Guard deployment, and the impact of spouses/partners adjustment on soldier mental health outcomes post-deployment. Dr. Brian Marx will investigate interactions among PTSD symptoms, socio-material well-being (e.g., relationship and employment status, income), and functional impairment over a 2.5 year period in veterans with and without PTSD. Our discussant will integrate these findings as they relate to long-term functioning and recovery initiatives for service members and their families.

**Long-Term Trajectories of Functional Impairment among Iraq/Afghanistan Veterans**  
(Assess Dx, Chronic-Complex-Depr-Mil/Vets, Adult, M, Industrialized)

**Kimbrel, Nathan, PhD**¹; Meyer, Eric, PhD²; DeBeer, Bryann, PhD²; Gulliver, Suzy, PhD³; Morissette, Sandra, PhD⁴  
¹Department of Veterans Affairs Medical Center, Veterans Integrated Service Network (VISN) 6 Mental Illness Research, Education and Clinical Center (MIRECC), Durham, North Carolina, USA  
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Objective: The aims of the present study were to: (1) Identify latent trajectory classes of functional impairment among Iraq/Afghanistan Veterans; and (2) Predict membership in these latent trajectory classes. Method: Approximately 300 Iraq/Afghanistan war veterans were enrolled in a 1-year longitudinal study of functional outcomes. Results: A preliminary latent class growth analysis revealed that a three-class trajectory model provided the best fit to the data. A “resilient trajectory” comprised 49% of the sample and was characterized by a flat trajectory and minimal levels of impairment. A “moderately impaired trajectory” comprised 34% of the sample and was characterized by moderate levels of impairment and a flat trajectory. Finally, a “severely impaired trajectory” comprised 17% of the sample and was characterized by high levels of impairment and a worsening trajectory slope. A multinomial logistic regression using the resilient trajectory as the referent class found that Veterans who reported high levels of combat exposure (OR=3.04) and high levels of experiential avoidance (OR = 5.23) were at significantly increased risk for membership in the severely impaired trajectory. Conclusion: Our preliminary findings indicate that combat exposure and experiential avoidance are robust predictors of long-term trajectories of functional impairment among Iraq/Afghanistan veterans.
Associations between DSM-5 Posttraumatic Stress Disorder Symptom Clusters and Functional Impairment Over Time in Female and Male War Veterans
(Assess Dx, Assess Dx-Mil/Vets-Gender, Adult, M, Industrialized)

Meyer, Eric, PhD; Konecky, Brian, PhD; Kimbrell, Nathan, PhD; Marx, Brian, PhD; Schumm, Jeremiah, PhD; Gulliver, Suzy, PhD; Morisette, Sandra, PhD

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3National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
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PTSD is broadly associated with functional impairment; however, prior research is less clear regarding which aspects of PTSD are most strongly linked to impairment, and prior research used measures that were brief or not well established. Little is known about associations between the DSM-5 PTSD symptom clusters and impairment, and virtually no data are available regarding gender differences in relation to this association. We examined associations between DSM-5 PTSD symptom clusters assessed at baseline and disability at baseline and one-year follow-up in 285 trauma exposed Iraq/Afghanistan war veterans (91 females) who completed the PCL-5 and two multi-dimensional measures of disability. At baseline, a global disability factor, comprised of the World Health Organization Disability Assessment Schedule 2.0 and the Inventory of Psychosocial Functioning, was associated with negative alterations in cognition and mood (β = .42, p < .001) and arousal (β = .28, p = .001) in the total sample and in both males and females. Baseline negative alterations in cognition and mood (β = .34, p < .001) and arousal (β = .23, p = .026) predicted one-year disability in the total sample (86% retention). Among women, only arousal predicted one-year disability (β = .56, p = .002). Among men, only negative alterations in cognition and mood predicted one-year disability (β = .40, p < .001).

The Effects of Spouse/Partner Functioning Over Time on Soldier Post-Deployment Outcomes
(Prevent, Fam/Int-Mil/Vets, Adult, M, Industrialized)

Erbes, Christopher, PhD LP; Polusny, Melissa, PhD; Arbisi, Paul, PhD, ABPP; DeGarmo, David, PhD; Kramer, Mark, PhD; 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
5National Center for PTSD, VA System and Boston University, Boston, Massachusetts, USA

The relationship between spouse/partner adjustment and soldier outcomes in the context of military deployments is still poorly understood. This longitudinal study examined trajectories of internalizing distress and alcohol use problems experienced by intimate partners across a deployment cycle and their impact on soldier post-deployment mental health. 1,020 Soldier-partner dyads completed valid, reliable measures of risk and resilience (i.e., personality, individual and family stressors, social support), and mental health before Soldiers’ deployment to Iraq or Afghanistan (Time 1). Partners were reassessed at Mo. 3 (Time 2; n=750, 74% response rate) and Mo. 9 (Time 3; n=707, 70%) of deployment. At Time 4 Soldiers (n=535) and partners (n=608) were assessed 3-months post-deployment. Latent class growth analyses identified four trajectories of partner internalizing distress across time: resilience, vulnerable-risk, anticipatory distress, and chronic distress. Three trajectories of alcohol problems emerged: resilience, vulnerable-risk, and deployment desistance. Multinomial logistic regression analyses will examine the impact of partners’ internalizing distress and alcohol trajectories on change in soldier mental health symptoms (PTSD, depression, and alcohol problems) from pre- to post-
Experiencing the Longitudinal Associations among Functional Impairment, Quality of Life Outcomes, and PTSD Status with OEF/OIF Veterans

Marx, Brian, PhD1; Bovin, Michelle, PhD2; Lee, Daniel, MS3; Green, Jonathan, PhD4; Parker-Guilbert, Kelly, PhD5; Rosen, Raymond, PhD6; Keane, Terence, PhD7

1National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
2VA Boston Healthcare System, National Center for PTSD; Boston University School of Medicine, Boston, Massachusetts, USA
3Auburn University, Auburn University, Alabama, USA
4VA - National Center for PTSD, Boston, Massachusetts, USA
5VA Boston Healthcare System, Boston, Massachusetts, USA
6New England Research Institutes, Inc., Watertown, Massachusetts, USA
7National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA

Research has consistently shown that posttraumatic stress disorder (PTSD) is associated with increased functional impairment and indicators of socio-material well-being (e.g., relationship status, employment status, income; Schnurr et al., 2009). How these outcomes interact with one another remains unclear. Using a sample of 1113 veterans who had served in Iraq and/or Afghanistan (49.5% female; Mage = 33.7 years, SDage = 6.3 years) and who participated in data collection at two time points ~ 2.5 years apart, we examined how these various aspects of quality of life interacted with one another across time, and whether PTSD status affected these interactions. Results suggested that among participants with PTSD, even after controlling for relevant T1 variables, functioning at T1 significantly predicted T2 relationship status (OR = .98; p < .01), T2 PTSD symptom severity (β = .11; p < .01), and T2 employment status (OR = .97; p < .01). In addition, employment status at T1 predicted functioning at T2 (β = .30; p < .01). In contrast, for participants without PTSD, only functioning at T1 predicted T2 PTSD symptom severity (β = .17; p < .01); none of the other associations were significant. The implications of these findings will be discussed.

Symposium
Friday, November 11
10:15 AM to 11:30 AM
Dallas D3

Increasing our Understanding of Subclinical PTSD Symptoms

Franklin, C, PhD
Southeast Louisiana Veterans Health Care System, New Orleans, Louisiana, USA

The DSM-5 does not include ways to evaluate or diagnose subclinical levels of PTSD symptoms. Nevertheless, research often includes individuals with sub-syndromal levels of PTSD, whether it is due to partial remission from previously threshold symptoms, or failure to meet full criteria for the disorder. Thus, having an understanding of subthreshold PTSD symptoms and how it is similar or distinct from fully threshold PTSD is important. The current symposium will investigate subthreshold PTSD symptoms in terms of diagnostic hit rates, factor structure, and treatment outcome. The presentations will include data from VA and non-VA samples, and from four different hospitals/universities. This diversity and collaboration among sites demonstrates the interest and need for a greater understanding of this topic.
Defining Subthreshold PTSD in the DSM-IV Literature: A Look toward DSM-5
(Assess Dx, Anx-Clinical Practice, Adult, M, Industrialized)

Franklin, C, PhD1; Piazza, Vivian, PhD1; Chelminski, Iwona, PhD2; Zimmerman, Mark, MD2
1Southeast Louisiana Veterans Health Care System, New Orleans, Louisiana, USA
2Brown University, Providence, Rhode Island, USA
A problem with the Subthreshold Posttraumatic Stress Disorder (SubPTSD) literature is that definitions are inconsistent across studies and therefore aggregating results is difficult. This study compared the diagnostic hit rates and validity of commonly used definitions of SubPTSD in a sample of psychiatric outpatients administered the Structured Clinical Interview for DSM-IV (SCID). Three definitions of SubPTSD were extracted from the literature and two were formed, including a model of DSM-5 PTSD-criterion sets, and one that requires six or more symptoms, but no criterion set. Participants (N = 654) with a criterion A stressor, but without full PTSD were included. Differential hit rates were found across definitions; however, most individuals did not meet any definition of SubPTSD. Forty five percent reported between one and five symptoms, less than the required six needed for full PTSD. The remaining 11.2% reported six or more symptoms, but were not diagnosed with PTSD due to not meeting criterion sets. These participants failed to meet full PTSD criteria by not meeting criterion B (4.1%), criterion C (68.8%), and criterion D (31.5%). One participant failed to meet more than one criterion set. Findings are discussed in light of previous research and need for increased understanding of SubPTSD.

The Structure of Subclinical PTSD: Factor or Fiction?
(Assess Dx, Mil/Vets, Adult, M, N/A)

Cuccurullo, Lisa-Ann, PsyD1; Walton, Jessica, PhD1; Ball, Jacqueline, PhD1; Vaught, Amanda, PsyD1; Chambliss, Jessica, MS4; Maiertisch, Kelly, PhD2; Franklin, C, PhD1
1Southeast Louisiana Veterans Health Care System, New Orleans, Louisiana, USA
2Hines VA Hospital, Chicago, Illinois, USA

Extant literature has focused on the factor structure of Posttraumatic Stress Disorder (PTSD; e.g., Forbes, 2015), especially with the adoption of the Diagnostic and Statistical Manual-Fifth Edition (DSM-5, American Psychiatric Association, 2013). Yet, there is little consensus as to how to define, and how to structure subclinical PTSD (Franklin et al., 2014). The current study examines the factor structure of subclinical PTSD, as extrapolated from Franklin and colleagues (2014), utilizing a structural equation modeling (SEM) framework. An analysis was conducted on a preliminary sample of 100 veterans, from two Veteran’s Health Care Systems evaluated with the Clinician Administered PTSD Scale for DSM-5 (CAPS-5). SEM was run on the current DSM-5 four factor structure and the Armour and colleagues (2014) seven factor structure; it was found that the subclinical group had a distinctly different factor structure than that of the current clinical literature. This suggests that subclinical PTSD may be a unique psychological process distinct from PTSD as discussed in Franklin et al. (under review). Data collection will continue until August 2016. Results will be discussed with particular attention to assessment and clinical intervention.

Efficacy of a Brief Computerized Intervention on Subclinical Posttraumatic Stress Symptoms
(Clin Res, Anx-Clin Res-Prevent, Adult, M, N/A)

Raines, Amanda, MS, PhD Student; Schmidt, Norman, PhD
Florida State University, Tallahassee, Florida, USA

Categorical models of psychopathology have resulted in a dearth of research examining posttraumatic stress sequelae that can occur at the subthreshold level. Subthreshold posttraumatic stress disorder (PTSD) has been found to be associated with increased comorbidity, suicidal ideation, and impairment across various life domains. Moreover, longitudinal research suggests that subthreshold PTSD can persist over time and in some cases develop into full-blown PTSD. Despite these findings, little research has examined treatments for subclinical PTSD. The purpose of the proposed study was to examine the efficacy of a brief computerized intervention on subclinical PTSD symptoms. Community participants (N=86) exhibiting subclinical PTSD were randomized to a control condition or a brief psychoeducational intervention for anxiety sensitivity cognitive concerns (i.e., fears of cognitive dyscontrol). The active treatment produced greater reductions in anxiety sensitivity cognitive concerns...
posttreatment ($\beta = .38$, $p < .001$). Moreover, treatment related changes in anxiety sensitivity cognitive concerns mediated changes in PTSD symptoms at one-month follow-up ($B = -2.42$, [CI - 6.60, -0.05]). These findings have important clinical implications for the prevention and treatment of PTSD.

**A Comparison of Evidence-Based Trauma-Focused Treatment Outcomes in a Diverse, Multi-Era Sample of Veterans Experiencing Subthreshold Vs. Threshold PTSD**

(Clin Res, Assess Dx-Clin Res-Mil/Vets, Adult, M, Industrialized)

Lamp, Kristen, PhD1; Astin, Millie, PhD2; Rauch, Sheila, PhD, ABPP3; Norrholm, Seth, PhD3; Bradley, Bekh, PhD2

1Atlanta VA Medical Center, Atlanta, Georgia, USA
2Atlanta VAMC/Emory University, Decatur, Georgia, USA
3Emory University School of Medicine/Atlanta Veteran's Administration, Atlanta, Georgia, USA

Subthreshold posttraumatic stress disorder (PTSD) is conceptualized as trauma-related symptoms which do not meet full criteria for PTSD (Franklin et al., 2015). Previous studies describe subthreshold PTSD as a prevalent mental health condition (Brancu et al., 2015). However, many Veterans who report subthreshold PTSD symptoms do not engage in mental health care (Grubaugh et al., 2005), including evidence-based trauma-focused therapies such as Cognitive Processing Therapy (CPT) or Prolonged Exposure (PE). In one Veteran sample, completion of CPT led to significant reductions in subthreshold PTSD symptoms, indicating that trauma-focused therapy may prove beneficial for subthreshold symptoms (Dickstein et al., 2010). The present study compared the effectiveness of evidence-based trauma-focused therapy (CPT or PE) for Veterans endorsing either subthreshold PTSD (N=40) or threshold PTSD (N=100). Findings indicated that all Veterans showed improvement in PTSD and depression symptoms from pre- to post-treatment. Those with threshold PTSD showed the most substantial decrease in symptoms from pre- to post-treatment, while those with subthreshold PTSD evidenced lower scores on all symptom measures at pre- and post-treatment. These results are discussed in light of previous research and need for increased understanding of treatment outcomes for Veterans with subthreshold PTSD.

**Symposium**
**Friday, November 11**
**10:15 AM to 11:30 AM**
**San Antonio Ballroom A**

**The Treatment of Co-occurring PTSD and Substance-Related Disorders**
(Clin Res, Sub/Abuse, Adult, M, Industrialized)

**Kehle-Forbes, Shannon, PhD**
*Minneapolis VA Health Care System, Minneapolis, Minnesota, USA*

Substance-use and addictive disorders are common among individuals with PTSD, with estimates suggesting that one-quarter to one-half of those seeking treatment for PTSD meet criteria for an alcohol, drug, and/or nicotine-related disorder. Due to the demonstrated functional relationship between these two conditions, prior studies have shown that both disorders are more difficult to treat when they co-occur. This symposium will report data from randomized clinical trials and real-world clinical practice regarding the benefits and harms of a variety of approaches for treating co-occurring PTSD and substance-related disorders. Specifically, the findings will highlight the need for treatments that directly address both disorders through demonstrating the negative impact of an alcohol use diagnosis on initiation and engagement in trauma-focused therapies for PTSD and establish the efficacy of treatments that integrate trauma-focused therapies for PTSD with psychotherapeutic and pharmacological treatments for substance-related disorders.
A Randomized Clinical Trial of Sequential Versus Integrated Treatment for Veterans with Co-Ocurring PTSD and Substance Use Disorders
(Clin Res, Sub/Abuse, Adult, M, Industrialized)

Kehle-Forbes, Shannon, PhD; Drapkin, Michelle, PhD; Foa, Edna, PhD; Koffel, Erin, PhD; Polusny, Melissa, PhD; Van Horn, Deborah, PhD; Yusko, David, PsyD; Oslin, David, MD
1Minneapolis VA Health Care System, Minneapolis, Minnesota, USA
2University of Pennsylvania; Philadelphia VAMC, Philadelphia, Pennsylvania, USA
3University of Pennsylvania, Philadelphia, Pennsylvania, USA
4Minneapolis VAHCS, Center for Chronic Disease Outcome Research, University of Minnesota Medical School, Minneapolis, Minnesota, USA

There is no gold standard treatment approach for individuals with comorbid PTSD and substance use disorders (SUD). The most common strategy is to provide sequential treatment, where the SUD is treated first and following sustained abstinence, PTSD treatment is instituted. Integrated treatment that addresses both disorders simultaneously is a promising alternative. This study randomized 183 Veterans with comorbid DSM-IV diagnosed PTSD and SUD to receive either a sequential (4 sessions of motivational enhancement therapy [MET] followed by 12 sessions of prolonged exposure [PE]) or integrated (16 sessions of integrated MET and PE) course of treatment. Preliminary findings show that despite high levels of treatment dropout, veterans randomized to both conditions experienced large and statistically significant decreases in self-reported PTSD symptoms, clinician-assessed PTSD symptoms, and percent days drinking from screening to post-treatment assessment. Contrary to our hypothesis that the integrated treatment would yield greater symptom reduction, outcomes did not differ between the two conditions. Our results also indicate that very few veterans in the sequential arm achieved abstinence in the first 4 weeks as planned. Clinical implications of our unexpected findings, including the difficulty of providing sequential treatment to this complex population, will be discussed.

Integrated Treatment of PTSD and Addiction in Veterans Using Prolonged Exposure
(Clin Res, Sub/Abuse-Mil/Vets, Adult, M, N/A)

Back, Sudie, PhD; Killeen, Therese, PhD, RN; Badour, Christal, MA PhD Student; Flanagan, Julianne, PhD; Korte, Kristina, PhD; Brady, Kathleen, MD, PhD
1Medical University of South Carolina, Charleston, South Carolina, USA
2Medical University of South Carolina and the Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA
3Medical University of South Carolina/Charleston VA, Charleston, South Carolina, USA

Due to sustained military operations in Iraq and Afghanistan, an increasing number of military Veterans at risk for developing posttraumatic stress disorder (PTSD) and comorbid substance use disorders (SUD). Historically, the sequential model of treatment has been utilized. However, outcomes of sequential treatment approaches are suboptimal. In order to address the substantial gaps in the treatment of co-occurring PTSD and SUD, our team developed an integrated, 12-session, cognitive-behavioral therapy that combines Prolonged Exposure for PTSD with relapse prevention for SUD called “COPE” (Back et al., 2015). In this study, Veterans (N=81) with PTSD and SUD (primarily alcohol use disorder) were randomly assigned to the integrated treatment or standard care (relapse prevention only). Primary outcome measures include the Clinician Administered PTSD Scale, PTSD Checklist-Military, and Timeline Followback. Liner mixed models revealed that patients who received COPE, as compared to standard care, evidenced significantly greater reductions in PTSD symptoms as measured by the CAPS (p=.02) and PCL-M (p=.05). In addition, the rate of symptom reduction was faster in COPE as compared to standard care. Substance use declined significantly in both groups and no between-group differences were observed. Limitations and future directions will be discussed.
Role of Alcohol Use Disorder in PTSD Treatment Engagement among Treatment Seeking Veterans

(Clin Res, Sub/Abuse, Adult, M, Industrialized)

Norman, Sonya, PhD1; Myers, Ursula, MS, PhD Student2; Angkaw, Abigail, PhD3
1VA San Diego Healthcare System, San Diego, California, USA
2San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology, San Diego, California, USA
3San Diego VA/University of San Diego, San Diego, California, USA

Even in settings where evidence based psychotherapies (EBP’s) for posttraumatic stress disorder (PTSD) are widely available, such as the VA, rates of engagement in EBP’s can be low. Understanding factors associated with engagement can inform how to help more individuals with PTSD benefit from these treatments. The goal of this study was to evaluate whether, among 364 (92% male) veterans seeking outpatient VA treatment for PTSD, those who also had a diagnosis of alcohol use disorder (AUD) were less likely to initiate EBP (prolonged exposure or cognitive processing therapy) and whether they were likely to attend fewer therapy sessions. All veterans were offered EBP. 74 individuals (20.3%) had a chart diagnosis or rule out of AUD. 14% of those with AUD initiated an EBP compared to 29% without AUD (chi-square=3.88, p<.05). Among those who engaged in psychotherapy, those with AUD completed a mean of 1.6 EBP sessions (s.d.=3.4; n=39) while those without AUD completed a mean of 4.3 EBP sessions (s.d.=5.54; n=140) (F=24.3, p<.0001). Results highlight the importance of screening for and addressing AUD in individuals seeking treatment for PTSD.

Concurrent Varenicline and Prolonged Exposure for Patients with Nicotine Dependence and PTSD: A Randomized Controlled Trial

(Clin Res, Health-Pub Health-Sub/Abuse, Adult, M, Industrialized)

Asnaani, Anu, PhD1; Rosenfield, David, PhD2; Zandberg, Laurie, PsyD3; Gariti, Peter, PhD3; Imms, Patricia, RN3; Foa, Edna, PhD3
1University of Pennsylvania, Pennsylvania, USA
2Southern Methodist University, Dallas, Texas, USA
3University of Pennsylvania, Philadelphia, Pennsylvania, USA

The prevalence of smoking among individuals with post-traumatic stress disorder (PTSD) is disproportionately high, and PTSD is associated with poorer response to smoking cessation. The current study evaluated whether integration of an evidence-based treatment for PTSD (prolonged exposure; PE) with pharmacotherapy for smoking cessation (varenicline; VAR) enhances smoking reduction among smokers diagnosed with PTSD compared to VAR alone. Participants (n = 142) were randomly assigned to either condition; all received smoking cessation counseling. Smoking outcome measures were biologically-confirmed abstinence, serum cotinine levels, and number of cigarettes smoked in last week at post-treatment and 3-month follow-up. Psychological outcomes were PTSD and depression severity. Mixed effects models were conducted including baseline PTSD severity as moderator of treatment condition effects. Participants who received PE +VAR showed significantly greater reduction of PTSD (F(2,126) = 8.42, p<.001) and depression (F(2,126)=9.28, p<.001) than those who did not. PE +VAR led to significantly higher abstinence rates, fewer cigarettes smoked, and lower cotinine levels in participants with higher baseline PTSD severity than VAR alone (ps<.05). The integration of treatment for PTSD and varenicline significantly reduced smoking among individuals with moderate or severe PTSD symptom severity.

Symposium
Friday, November 11
10:15 AM to 11:30 AM
San Antonio Ballroom B

Welcoming Adjustment Disorder to the Trauma and Stressor Related Disorders
(Assess Dx, Assess Dx, Adult, I, Industrialized)

O'Donnell, Meaghan, PhD1; Creamer, Mark, PhD2
1Phoenix Australia: Centre for Posttraumatic Mental Health: The University of Melbourne, Carlton, Victoria, Australia
2University of Melbourne, Carlton, Victoria, Australia
Adjustment disorders (AD) was added into the DSM-5 Chapter on Trauma and Stressor Related Disorders, and the ICD-11 Classification of Disorders Specifically Associated with Stress, in recognition that a stressful or traumatic event is a necessary (although not sufficient) condition for the development of the disorder. However, despite it being one of the most frequently diagnosed psychiatric disorders in clinical practice, there has been little research interest in the disorder. With DSM-5 and the ICD-11 taking very different approaches to the diagnostic criteria of AD the scene is set for some important and influential research into AD future directions. This symposium presents three papers, two examining AD from an ICD-11 perspective and one looking at AD from a DSM-5 perspective. Our discussant will pull together these findings to discuss what they mean for the disorder, its future research and its public health implications.

Self-help Interventions for Adjustment Disorder: A Randomized Waiting-list Controlled Study
(Clin Res, Pub Health, Adult, I, Global)

Maercker, Andreas, PhD, MD
University of Zurich, Zurich, Switzerland

This study by Rahel Bachem, PhD, and the presenter investigated the effectiveness of a self-help manual specifically directed at alleviating AjD symptoms in a homogenous sample of burglary victims. Participants with clinical or subclinical AjD symptoms following experience of burglary were randomized to an intervention group (n = 30) or waiting-list control group (n = 24). The new explicit stress response syndrome model for diagnosing AjD was applied. Participants received no therapist support and assessments took place at baseline, after the one-month intervention, and at three-month follow-up. Group by time interactions indicated that the intervention group showed more improvement in AjD symptoms of preoccupation and in post-traumatic stress symptoms. Post-intervention between-group effect sizes ranged from Cohen’s d = .17 to .67 and the proportion of participants showing reliable change was consistently higher in the intervention group than in the control group. Engagement with the self-help manual was high: 87% of participants had worked through at least half the manual. This is the first published RCT of a bibliotherapeutic self-help intervention for AjD. The findings provide evidence that a low-threshold self-help intervention without therapist contact is a feasible and effective treatment for symptoms of AjD.

A Longitudinal Study of Adjustment Disorder after Trauma Exposure
(Assess Dx, Acc/Inj, Adult, I, Industrialized)

O'Donnell, Meaghan, PhD
Nathan, Alkemade, PhD
Creamer, Mark, PhD
McFarlane, Alexander, MD
Silove, Derrick, MD PhD
Bryant, Richard, PhD
Felmingham, Kim, PhD
Steel, Zachary, PhD
Forbes, David, PhD

Phoenix Australia: Centre for Posttraumatic Mental Health: The University of Melbourne, Carlton, Victoria, Australia
ACPMH, University of Melbourne, Melbourne, Victoria, Australia
University of Melbourne, Carlton, Victoria, Australia
The University of Adelaide, Adelaide, South Australia, Australia
University of New South Wales, Sydney, New South Wales, Australia
University of Tasmania, Hobart, Tasmania, Australia
University of New South Wales, Randwick, New South Wales, Australia

Adjustment Disorder (AD) has been re-categorised as a Trauma-and Stressor-Related Disorder in the Diagnostic and Statistical Manual of Mental Disorders– 5th Edition [DSM-5]. The primary aim of this study was to investigate AD prevalence and trajectory over the course of 12 months after trauma exposure. In a multi-sited, longitudinal study, randomly selected injury patients were assessed during hospitalization and at 3 and 12 months post trauma (n=929). Structured clinical interviews were used to assess affective, anxiety and substance use disorders, and self-report measures of disability, anxiety, depression, and quality of life were administered. The prevalence of AD was 18% and 15% at 3 and 12 months respectively. Participants with AD reported worse outcomes relative to those with no psychiatric diagnosis, but better outcomes relative to those diagnosed with a psychiatric disorder. Participants with AD at 3 months post injury were significantly more likely to meet criteria for a psychiatric disorder at 12 months. Latent Profile Analysis identified a three class model which was based on symptom severity not the subtypes identified by DSM-5. Re-categorisation of AD into the Trauma -and Stressor-Related Disorders is
supported by this study. However, further refinement of the phenomenology of the disorder is required.

**New Revision of Adjustment Disorder in ICD-11: Factor Structure Study in Lithuania**  
(Assess Dx, Assess Dx-Global-Theory, Adult, I, Industrialized)

Kazlauskas, Evaldas, PhD; Eimontas, Jonas, MA PhD Student; Zelviene, Paulina, MA PhD Student  
Vilnius University, Vilnius, Lithuania

WHO ICD-11 Working Group on the Classification of Disorders Specifically Associated with Stress proposed the new definition of Adjustment Disorder (AD). We aimed to evaluate the factor structure and predictors of AD in the Lithuanian sample. The total of 831 adults (57.9 % females, mean age 39.8) from the general population participated in our study. Self-report instruments for measuring PTSD (Impact of Event Scale-Revised, IES-R), and Adjustment Disorder (Adjustment Disorder New Module, ADNM-20) were used. Confirmatory Factor Analysis (CFA) was used for AD data analysis. Three alternative CFA models of AD structure were tested. The two factor AD solution with two core symptoms (preoccupation and failure to adapt) had the best fit (CFI = .985, RMSEA = .053). AD symptoms were predicted by the number of life stressors experienced during the last two years. Life-time trauma exposure predicted PTSD symptoms, but did not predict AD symptoms. We conclude that results of our study support the proposals of ICD-11 working group for the revision of the AD, with two core symptoms, and without subtypes.

**Panel Presentation**  
Friday, November 11  
10:15 AM to 11:30 AM  
Houston Ballroom A

**An Analysis of Technology and Mobile Applications for Facilitating EMDR Treatment of PTSD with Dissociative Features**  
(Practice, Complex-Tech-Train/Ed/Dis, Prof, M, Industrialized)

Marotta-Walters, Sylvia, PhD, ABPP; Jain, Kshipra, PhD Student; Dinardo, Jeff, PhD Student; Friday, Amanda, PhD Student; Kaur, Preet, PhD Student  
George Washington University, Washington, District of Columbia, USA

The prevalence of dissociative disorders in the general US population has been reported to range from 2-10%. Additionally, dissociative disorders have been reported to be co-morbid with borderline personality, substance use, schizophrenia, depression, anxiety, somatic, and eating disorders. With the DSM-5 inclusion of a dissociative subtype for PTSD, it has become increasingly important for clinicians to focus on dissociative symptoms in PTSD treatment. Recently, there has been a rise in the creation and use of EMDR-specific technology for symptoms associated with complex disorders like PTSD. This pioneering trend is noble, yet should be handled with caution, as there is insufficient evidence for the use of EMDR with dissociative spectrum features when this treatment involves mobile applications. Research supports the effectiveness of EMDR on the treatment of complex PTSD. However, there appears to be a difference in sufficient treatment dose between different client presentations, especially with those involving dissociative symptomatology. This panel will discuss the issue of dissociative-like features in PTSD treatment using EMDR. The panel will also report on a systematic analysis of mobile applications for EMDR treatment, as these might address the components of traditional EMDR treatment thought to promote change. Implications for practitioners will be presented.
Workshop Presentation
Friday, November 11
10:15 AM to 11:30 AM
Dallas A3

Concerted Care for Foster Children: Results of the Anne E. Casey Bridging the Way Home Study
(Clin Res, Chronic-Complex-Train/Ed/Dis, Child/Adol, M, Industrialized)

Brown, Adam, PsyD1; Saxe, Glenn, MD1; McCauley, Kelly, LCSW2
1New York University Langone Medical Center, New York, New York, USA
2KVC Behavioral HealthCare, Lawrence, Kansas, USA

This workshop will describe the implementation, evaluation, and results of one of the largest evaluations of an intervention model for children in foster care, aimed to improve care within the services system. This Bridging the Way Home Project, funded by the Anne E. Casey Foundation, and conducted under the auspices of KVC Behavioral Healthcare Inc. in Kansas created processes by which a defined trauma-informed intervention model (Trauma Systems Therapy) could inform the work of all those involved in the care of a foster child (i.e., clinical and non-clinical providers). The model developer will present a brief introduction to the TST model and its applicability to child welfare settings. The implementation at KVC, which provides foster care services to half of the children in care in the state of Kansas, will be then be described, followed by an overview of the evaluation of this implementation conducted by Child Trends. The purpose of the evaluation was to understand how TST was being integrated across the organization and assess whether this integration promoted positive outcomes (mental health/well-being, placement stability, and permanency) for the nearly 1,500 children (aged 6 and older) entering out-of-home care between 2011 and 2014. The evaluation relied on administrative data to measure child outcomes, and children’s exposure, or “dosage,” to TST.

Oral Paper Presentations
Friday, November 11
10:15 AM to 11:30 AM
Houston Ballroom B

Symptomology - Classification One Paper Session

Latent Classes of PTSD Symptoms in Veterans Undergoing Residential PTSD Treatment
(Assess Dx, Aggress-Health-Pub Health, Adult, M, Industrialized)

Sripada, Rebecca, PhD1; Hoff, Rani, PhD MPH2; Pfeiffer, Paul, MD1; Ganoczy, Dara, MPH3; Blow, Fred, PhD3; Bohnert, Kipling, PhD1
1VA Ann Arbor Health Care System/University of Michigan Medical School, Ann Arbor, Michigan, USA
2Yale University School of Medicine, National Center for PTSD, West Haven, Connecticut, USA
3University of Michigan, Dept of Psychiatry, Ann Arbor, Michigan, USA

Although most veterans in VA are treated for posttraumatic stress disorder (PTSD) on an outpatient basis, the VA has approximately 40 residential PTSD treatment facilities across the country for those requiring more intensive care. Since little is known about the symptom profiles of these veterans, the current study was designed to characterize classes of PTSD symptoms in a national sample of veterans undergoing VA residential treatment. We analyzed latent classes of PTSD symptoms among 2,672 veterans entering VA PTSD residential treatment in Fiscal Year 2013. The model with the best fit was a 4-class model comprising a high symptom class (41.3%), low symptom class (11.0%), moderate symptom class with high re-experiencing symptoms (22.6%), and moderate symptom class with high emotional numbing (25.1%). Compared to classes identified in outpatient samples, these classes were similar in type but greater in severity. Classes differed by age, race/ethnicity, physical health, sleep problems, and social functioning (all p<.05). Our findings suggest that veterans with more severe PTSD symptoms also experience other medical and psychosocial stressors. Veterans in VA residential programs have distinct profiles, and a better understanding of these profiles may help to create
more individualized treatment planning and thus potentially improve care for these veterans.

**Longitudinal Measurement Invariance of Posttraumatic Stress Disorder in Deployed Marines**

(Assess Dx, Res Meth-Mil/Vets, Adult, A, Industrialized)

**Contractor, Ateka, PhD**1; Bolton, Elisa, PhD2; Gallagher, Matthew, PhD3; Nash, William, MD4; Litz, Brett, PhD5

1VA Boston Healthcare System & Boston University School of Medicine, Jamaica Plain, Massachusetts, USA
2VA Boston Healthcare System, Jamaica Plain, Massachusetts, USA
3University of Houston, Houston, Texas, USA
4Marine Corps, Arlington, Virginia, USA
5VA Boston Healthcare System & Boston University School of Medicine, Boston, Massachusetts, USA

Meaningful interpretation of longitudinal studies is dependent on the construct of interest being reliably measured over time; this quality is called measurement invariance (Meredith & Teresi, 2006). We examined the longitudinal measurement invariance of the construct of PTSD and its symptom clusters assessed by the PTSD Checklist (PCL) and the Clinician Administered PTSD Scale (CAPS) in a sample of 834 Marines exposed to significant levels of combat. PTSD was assessed 1-month pre-deployment, and at 1-month, 5-months, and 8-months post-deployment. We tested for configural (pattern of item/parcel loadings), metric (item/parcel loadings on latent factors), and scalar (item/parcel intercepts) invariance and explored sources of measurement instability through partial invariance testing. Using the two benchmarks of a significant chi-square value difference and a Comparative Fit Index value difference of \( >/=0.01 \), we found (1) scalar non-invariance (differing intercepts) for the construct of PTSD measured by the PCL and CAPS and PTSD’s symptom clusters assessed by the CAPS; and (2) metric non-invariance (difference in meaning) for PTSD’s symptom clusters measured by the PCL. We will present findings on the sources of measurement non-invariance, suggest best practice standards for testing invariance, and discuss the implications of these findings for longitudinal studies of PTSD.

**Longitudinal Cortex Features in PTSD Patients Following Motor Vehicle Accidents: A Cohort Study**

(Clin Res, Acc/Inj-Acute-Neuro, Adult, I, E Asia & Pac)

**Wang, Zhen, MD PhD**1; Hu, Hao, PhD Student1; Su, Shanshan, Clinician in Psychiatry1; Wang, Qian, PhD, MSc2; Xiao, Zeping, PhD, MD2

1Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, Shanghai, China
2Med-X Research Institute of SJTU, Shanghai, China

Backgrounds and Objective: Our study was carried out to figure out the neuro-imaging features of PTSD acquired in 48 hours and 24 weeks apart from the accident, by recruiting MVA victims from emergency rooms from comprehensive hospitals. Methods: Subjects at baseline were categorized as PTSD group or trauma control group according to the follow-up clinical assessment with clinician administered PTSD scale (CAPS). 29 PTSD subjects and 41 trauma control subjects were included in the final analysis. 15 subjects with PTSD and 14 subjects without PTSD were scanned by MRI for second time at 24 weeks apart from the accidents. Freesurfer was then used to compare between-group grey matter volumes. Results: Volume of bilateral insula cortex and left subgenual anterior cingulate cortex were smaller in PTSD group than in trauma control group at baseline. These results could be corrected by FDR (\( P < 0.05 \)). Values extracted from the abnormal cortex correlate significantly with CAPS total scores (\( P < 0.05 \)). Volumes of CA3 and DG were smaller in PTSD group than in trauma control group at baseline. Voxelwise longitudinal analysis showed that no significant differences with regards to cortical thickness changing rate. Conclusions: Cortex structural deficiency within prefrontal lobe, CA3/DG or insula could make trauma victims more vulnerable to develop PTSD.
Network Models of DSM-5
Posttraumatic Stress Disorder: Implications for ICD-11
(Assess Dx, Gender, Adult, M, Industrialized)

Mitchell, Karen, PhD1; Wolf, Erika, PhD2; Bovin, Michelle, PhD3; Rosen, Raymond, PhD4; Keane, Terence, PhD5; Marx, Brian, PhD6
1National Center for PTSD, Women's Health Sciences Division, VA Boston Healthcare System and Boston University School of Medicine, Boston, Massachusetts, USA
2National Center for PTSD at VA Boston Healthcare System & BUSM, Boston, Massachusetts, USA
3VA Boston Healthcare System, National Center for PTSD; Boston University School of Medicine, Boston, Massachusetts, USA
4New England Research Institutes, Inc., Watertown, Massachusetts, USA
5VA Boston Healthcare System, National Center for PTSD, Boston, Massachusetts, USA
6National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA

Diagnostic criteria for PTSD have received criticism for including symptoms that overlap with other mental disorders. Some have suggested that overlapping symptoms be eliminated from the PTSD diagnosis. In contrast to the Diagnostic and Statistical Manual of Mental Disorder-5’s 20 PTSD symptoms, the proposed criteria for the 11th edition of the International Classification of Diseases include only six symptoms. However, it remains unclear whether these six symptoms best assess PTSD. Network analytic methods, which assume that psychiatric diseases are networks of interrelated symptoms, provide information regarding the relative importance of each symptom to the broader diagnosis. We estimated network models of PTSD in a national sample of male and female veterans of the Iraq and Afghanistan wars. In the full sample, the most central symptoms were persistent negative emotional state, intrusive distressing memories, psychological distress, physiological reactions, efforts to avoid thoughts/memories, and diminished interest in activities. This pattern was generally consistent across men and women. With the exception of efforts to avoid thoughts/rememberies, the symptoms proposed for inclusion in the ICD-11 were not the most central to the PTSD network. Our results highlight the symptoms most central to PTSD in this sample, which may inform future diagnostic systems and treatment.

Oral Paper Presentations
Friday, November 11
10:15 AM to 11:30 AM
Houston Ballroom C

Emotions Paper Session

Emotion Dysregulation as a Prospective Predictor of PTSD Following Sexual Assault
(Clin Res, Affect/Int-Rape, Adult, I, Industrialized)

Franz, Molly, Doctoral Student1; Hein, Christina, Doctoral Student1; Jaffe, Anna, Doctoral Student1; Messman-Moore, Terri, PhD2; Gratz, Kim, PhD3; DiLillo, David, PhD1
1University of Nebraska - Lincoln, Lincoln, Nebraska, USA
2Miami University, Oxford, Ohio, USA
3University of Mississippi Medical Center, Jackson, Mississippi, USA

Difficulties in emotion regulation (ER) have been repeatedly linked to greater PTSD, with recent meta-analytic results revealing large effects between both general and specific (e.g., experiential avoidance, rumination) ER strategies, and PTSD. Despite a growing literature implicating ER in the development of PTSD, existing research is largely cross-sectional. Furthermore, existing prospective studies have not examined the potential influence of pretrauma ER difficulties on PTSD stemming specifically from sexual assault. Thus, the present prospective study investigated the role of pre-trauma ER difficulties in the development of PTSD following exposure to sexual assault, within a sample of 490 young adult women. ER was assessed using self-report (Difficulties in Emotion Regulation Scale, Acceptance and Action Questionnaire, Anxiety Sensitivity Index) and behavioral measures (Paced Auditory Serial Addition Task). Data analyses are currently underway using structural equation modeling to examine the temporal relationship between ER (T1) and PTSD (T2). Deficits in overall ER, as well as specific ER strategies are anticipated to predict PTSD among those exposed to sexual assault. Findings are expected to support and extend a vulnerability model of PTSD, in which deficits in the
ability to regulate affect increase vulnerability to PTSD stemming from sexual assault.

**Investigating Perceived Effectiveness of Therapies Used by Survivors of Rape and Sexual Assault Using a Mixed Method Approach**

(Train/Ed/Dis, CSA-DV-Rape, Adult, M, Industrialized)

**Weingarten, Christine, BA; Einolf, Christopher, PhD**

*DePaul University, Chicago, Illinois, USA*

Survivors of rape and sexual assault commonly use alternative therapies in addition to psychotherapy, but studies evaluating the effectiveness of these therapies are rare. This study investigates the use of 13 alternative therapies including acupuncture, equine assisted therapy, eye movement desensitization and reprocessing (EMDR), and yoga. Quantitative data was collected using an anonymous online survey where survivors (n = 210) reported on the perceived effectiveness of therapies and the preferred characteristics and actions of practitioners. In-depth interviews with 30 survivors provided additional depth and perspective. The rates of survivors that used each therapy varied widely, ranging from 5.5% (equine assisted therapy) to 62.1% (yoga). Nearly all respondents (91.7%) used traditional psychotherapy, indicating that they used other therapies as a complement, not an alternative. Yoga was most frequently endorsed as the most helpful treatment (24.4%) followed by EMDR (23.5%) and psychotherapy (21.4%). The most important practitioner characteristics and behaviors were reassuring survivors their symptoms were normal (81.0%), having previously worked with survivors (72.9%), and that practitioners listened to their ideas when making treatment plans (69.5%). The findings from this study will add to the understanding of therapy utilization of survivors and preferred practices.

**Effects of Intimate Partner Violence, Mental Health, and Social Support on Perinatal Health**

(Clin Res, DV-Health-Gender, Adult, M, Industrialized)

**Scrafford, Kathryn, PhD Student; Miller-Graff, Laura, PhD; Grein, Katherine, BA**

*University of Notre Dame, Notre Dame, Indiana, USA*

Approximately 4-9% of US women experience intimate partner violence (IPV) during pregnancy. Effects of IPV-exposure on pregnancy are well-documented and include higher rates of preeclampsia, severe nausea, vaginal bleeding, kidney infection, and pre-term birth. Few studies have examined the contribution of IPV-exposure on perinatal physical health with mental health as a mediator, and no study has yet examined social support’s potential buffering effect on perinatal health for IPV-exposed women. The current study proposes (1) to examine the contribution of IPV-exposure to perinatal physical health, (2) to examine the mediating effect of mental health on perinatal health, and (3) to assess social support as moderating the mediation. Baseline interviews during pregnancy were conducted with diverse participants (N=101) at the WIC office examining IPV-exposure and mental health. Interviews at 6 weeks post-delivery (in collection) examine perinatal health symptoms. Logistic regressions will examine associations between physical health, IPV-exposure, and mental health, and a bootstrapping procedure will examine the moderated mediation. Preliminary analyses found that the overall model was significant (F=4.185, p=.03), with depressed mood significantly predicting perinatal health problems (β=.09, SE=.03, p=.02).

The Effectiveness of an Emotional Working Memory Training in Patients with Borderline Personality Disorder

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

**Krause-Utz, Annegret, PhD†; Walther, Julia-Caroline, MA²; Schweizer, Susanne, PhD²; Elzinga, Bernet, PhD; Bohus, Martin, MD²**

1*Leiden University, Mannheim, Baden Württemberg, Germany*

2*Central Institute of Mental Health, Dept. of Psychosomatic Medicine, Mannheim, Germany*

3*Cambridge, Cambridge, United Kingdom*

4*Leiden University, Leiden, Netherlands*

Emotion dysregulation and heightened attention to (disturbing) social stimuli are core features of Borderline Personality Disorder (BPD), especially in patients with interpersonal trauma history. The objective of this study was to evaluate the
effectiveness of a computerized Emotional Working Memory (EWM) training on emotion regulation in BPD patients with interpersonal trauma history. Another aim was to investigate heart rate variability (HRV) in patients compared to healthy controls (HC) at baseline and during an experimental emotion regulation paradigm. In a randomized control trial, 60 BPD patients were randomly assigned to the training (dual-n-back task with emotional faces as distractors, n=30) or a placebo training (n=30). For HRV analysis, 30 HC were included. At baseline and after 26-day training, participants performed 1) an Emotional Working Memory Task (distractors: angry, fearful, neutral faces), and 2) an emotion regulation (reappraisal) task. Working memory, arousal ratings, and heart rate were assessed. While performing the emotion regulation task BPD patients showed significantly lower HRV than HC. A preliminary analysis of training data revealed a trend for decreased subjective arousal during instructed emotion regulation in the training group. Final results are discussed. Computerized EWM trainings may be a cost-efficient add-on-intervention in BPD.
Virtual reality (VR) has undergone a transition in the past 20 years that has taken it from the realm of expensive toy and into that of functional technology. Revolutionary advances in the underlying VR enabling technologies have now driven a renewed public enchantment with the medium as a new source of entertainment. However, VR is not limited to the domain of fun and games. VR technology provides an ideal method for creating controlled stimulus environments. Stimuli can be systematically delivered within realistic simulations of real world contexts that allow for exquisite timing and control of stimulus load/complexity, all of which can be manipulated in a dynamic fashion contingent on the responses of the client/research participant. Within such VR simulations, human performance can be digitally captured in real time to support a rich and precise analysis of relevant responses. In this regard, VR can be seen as the “ultimate Skinner Box” for conducting human research and for providing clinical care. Thus, in spite of the early limitations of the technology, a large scientific literature has emerged over the last 2 decades demonstrating the added value that is accrued with the use of VR to address a wide range of clinical health conditions. There is also evidence that many clinicians have come to recognize VRs potential for creating tools that can amplify and extend their capacity to deliver evidence-based care. This can be seen in the results from a survey where expert clinicians were queried as to what interventions they predicted would increase in the next decade (Norcross, 2012); VR ranked 4th out of 45 options with other computer-supported methods occupying 4 out of the top 5 rankings. This presentation will describe VR efforts that are now generating research that is having impact on the prevention, assessment and treatment of PTSD. After a brief introduction to the technology, I will cover the use of VR to deliver prolonged exposure for the treatment of PTSD and describe studies that aim to assess PTSD by recording the physiological reactivity of users interacting with VR stimuli. Applications that leverage VR to immerse service members within interactive, story-based simulations for teaching emotional coping and resilience prior to a military deployment will then be presented. The talk will conclude with a discussion of the use of AI Virtual Humans that serve the role of digital standardized patients for clinical training and as health care support coaches.
The Online Psychiatric Education Network (OPEN) Neurobiology of Trauma module takes an innovative approach to educating family physicians to build capacity for assessment and management of trauma and PTSD. This continuing professional development (CPD) eLearning initiative was jointly developed by psychiatrists and biomedical communication specialists from Women’s College Hospital and the University of Toronto. A novel series of medical animations were created to convey clinical information in an unfolding case scenario. Medical visualizations were designed to provide explanations of the neurobiology of trauma. Animations are encapsulated within an educational framework to support knowledge building and translation to practice. A design research case study was conducted with a sample population of family physicians and psychiatrists. Pre/posttest results and eLearning Survey outcomes from Likert-scale questions and open-ended qualitative responses will be reviewed. Feedback on eLearning design, usability, interactivity, and content clarity will be incorporated in the iterative design process. Medical animation samples and design research results will be presented. The final Trauma module will be offered as a CPD course through the University of Toronto. A second study, conducted at the time of implementation will assess physician knowledge translation outcomes.

**Measuring Outcomes of Online Training for PTSD Providers: Use of Standard Patient (SP) Methodology as a Tool for Objective Outcome Assessment**

(Train/Ed/Dis, Clin Res-Clinical Practice, Prof, M, Industrialized)

Rosen, Raymond, PhD\(^1\); Graham, Benjamin, PhD\(^2\); Ruzek, Josef, PhD\(^3\)

1New England Research Institutes, Inc., Watertown, Massachusetts, USA
2VA Palo Alto Health Care System, National Center for PTSD, Menlo Park, California, USA
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Clinician competence is the main focus of clinical training – i.e., are clinicians competent to deliver best practice psychological care for trauma survivors and families who present with a range of psychological disorders and problems? To assess clinician competence (Fairburn & Cooper, 2011), we developed and validated state-of-the-art objective “standardized patient (SP)” measures of clinical skill in intervention delivery. These methods were developed in an earlier study (Ruzek et al., 2012; 2014) and refined further in Project OUTFIT. We will present results from both studies. This presentation will include data from two independent studies of online training for PTSD providers and will focus on the primary outcome of SP assessment as an objective measure of clinical competence in cognitive-behavioral problem assessment and implementation of behavior change. In our earlier study (Ruzek et al., 2014), we showed sufficient inter-rater reliability and concordance with other outcomes. We will update our evaluation of the methodology in these and other areas. Scalability issues will be addressed and modifications needed for application in other areas of training research. The limitations of SP assessment and long-term role in...
A Model for Web-Facilitated Consultation to Support Online Clinician Training

(Train/Ed/Dis, Clinical Practice-Tech, Prof, M, Industrialized)

Ruzek, Josef, PhD; Rosen, Raymond, PhD; Graham, Benjamin, PhD; Hoyman, Lisa, MS; Sharma, Shivani, BS; Humphrey, Sharon, MS

1VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA
2New England Research Institutes, Inc., Watertown, Massachusetts, USA
3VA Palo Alto Health Care System, National Center for PTSD, Menlo Park, California, USA
4VA National Center for PTSD, Menlo Park, California, USA

Evidence-based training methods are not widely implemented in the training and continuing education of mental health providers. When available, training workshops typically do not provide the post-training consultation thought necessary to consolidate the learning of skills and achieve actual implementation. Most currently available consultation processes have not been manualized and often fail to include key elements thought to impact behavior: Review of clinician sessions via phone or video recording, modeling, and role-playing. We will describe the development of a web-facilitated consultation process designed to supplement Project OUTFIT’s online training for PTSD treatment providers. The training focused on the two key skills of behavioral task assignment and chain analysis/case formulation. The manualized consultation model included viewing of video modeling of skills delivery and role-play rehearsal of skills. The website supported delivery of consultation by including the online courses and an extensive set of 3-5 minute videos showing subskills (e.g., delivery of rationale, dealing with non-adherence). As part of Project OUTFIT, consultation was delivered to 80 VA and community-based clinicians. Quantitative and qualitative analyses indicated high levels of satisfaction with the consultation experience for both clinician trainees and expert consultants.

Evaluating Clinicians’ Use of a Web-based Training in Cognitive Behavioral Therapy for PTSD: Impact on Outcomes and Correlation with Self-Reported Use

(Train/Ed/Dis, Clinical Practice-Media-Tech, Prof, M, Industrialized)

Marceau, Lisa, MPH; Coleman, Julia, MPH candidate; Graham, Benjamin, PhD; Wilkinson, Ashley, MPH; Kato, Bernet, PhD; Rosen, Raymond, PhD; Ruzek, Josef, PhD

1New England Research Institutes, Inc., Watertown, Massachusetts, USA
2VA Palo Alto Health Care System, National Center for PTSD, Menlo Park, California, USA
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A persistent challenge to proponents of evidence-based practices is to provide scalable, effective means of training clinicians. Online training is a promising solution to this need, but must be accessible and useable to busy and/or resource-strained clinicians. As technology-based methods of training have evolved, so have the available methodologies for measuring how clinicians use online resources. These metrics may offer new insights into the usability of such trainings, while being equal or possibly superior to more traditional measurements of dosage such as self-report. Project OUTFIT, a randomized trial of clinicians that assesses the impact of a novel, modular CBT training program across 3 conditions: web training; web training plus learning consultation; and written materials, will be presented. CBT skills included were Behavioral Task Assignment and Chain Analysis. 420 clinicians (209 VA, 211 community) were randomized. Integrated web analytics were measured on each participant. In addition to aggregate data obtained through Google Analytics, customized analytics provided individual user profiles for pages viewed, links accessed, time spent per page, total session time, and total sessions. Self-report web use was also captured. Using standard analytic methods adequate dose (for completers) was determined and will be analyzed for primary outcomes.
Symposium
Friday, November 11
1:15 PM to 2:30 PM
Dallas A3

Youth Positive Adaptation in the
Aftermath of Trauma and Loss:
Implications for Intervention and
Public Policy
(Social, Clin Res-Comm/Int-Death-Fam/Int,
Child/Adol, I, Industrialized)

Kaplow, Julie, PhD, ABPP1; Pynoos, Robert, MD MPH2
1University of Texas Health Science Center, Houston,
Texas, USA
2UCLA - National Center for Child Traumatic Stress,
Los Angeles, California, USA

Although much research has focused on the negative
consequences of trauma and loss in childhood, far
fewer studies have examined positive adaptation and
growth that youth may experience in response to life
adversity. Careful examination of factors that can
influence positive adaptation in traumatized and
bereaved youth can shed light on therapeutically
modifiable factors, which in turn can be harnessed in
intervention efforts. This symposium will focus on
positive adaptation and healthy outcomes through
three studies of diverse populations of traumatized
and/or bereaved youth. The first study examines
associations among youth victimization, engagement
in civic activities, and beliefs about government in a
multi-cohort national data set. The second study
examines associations between parenting and
children’s emotion regulation in a longitudinal
evaluation of an intervention program for bereaved
youth and families. The third study examines
correlates and predictors of adaptive grief in a
longitudinal naturalistic study of bereaved youth, and
interweaves these findings with the Shared Grief
Project, a video archive of highly accomplished
individuals who have transformed their tragic losses
into meaningful life experiences. We conclude by
discussing the implications of these findings for
theory-building, intervention, and policy.

Violence Exposure and the Social
Contract: Examining Trends among
Youth Victimization, Civic
Engagement, and Beliefs about
Government over Thirty-Nine Years
(Social, Comm/Int-Comm/Vio-Pub Health-Social,
Child/Adol, I, Industrialized)

Oosterhoff, Benjamin, PhD1; Kaplow, Julie, PhD,
ABPP1; Layne, Christopher, PhD2; Pynoos, Robert,
MD MPH2
1University of Texas Health Science Center, Houston,
Texas, USA
2UCLA - National Center for Child Traumatic Stress,
Los Angeles, California, USA

Adolescent civic engagement is a critical component
of positive youth development. Few studies have
examined how youth victimization and trauma
exposure may be linked to engagement in civic
affairs and beliefs about government. Using data
from 39 waves of the Monitoring the Future study,
we examined associations among youth
victimization, engagement in different forms of civic
activities, and beliefs about government. Youth (N =
109,574; 50.9% female) enrolled in 12th grade across
multiple high schools reported whether they had been
the victim of physical assault, threat of physical
harm, or theft, as well as their involvement in
civic engagement, and their beliefs
about government. Exposure to a greater range of
victimization was positively associated with a 16% to
26% increase in likelihood of engaging in social
movement forms of civic activities. Additionally,
greater victimization was associated with less
supportive beliefs about government. Associations
among victimization and engagement in community
service and voting varied by the specific type of
victimization experienced. Theorized mechanisms
undergirding these relations include beliefs
concerning violations of the social contract, meaning-
making, and post-traumatic adaptation. We conclude
by discussing implications for preventing youth
victimization and public policy.
Positive Parenting Improves Adult Emotion Regulation for Parentally Bereaved Children

(Danvers, Alexander, Doctoral Student1; Sandler, Irwin, PhD1; Shiota, Michelle, PhD1; Tien, Jenn-Yun, PhD1; Scott, Brandon, PhD2
1Arizona State University, Tempe, Arizona, USA
2Montana State University, Bozeman, Montana, USA)

Traumatic childhood experiences, including parental bereavement, present both immediate and long-term risks for mental health problems (Dowdney, 2000). By targeting risk factors in both children and surviving caregivers, the Family Bereavement Program (FBP) aimed to improve child and caregiver resilience. We report results of a 15-year follow-up on the parentally bereaved children, now adults (mean age = 26.64), examining a pathway through which the program may impact long-term emotion regulation ability. Using a cascading model, we found that positive parenting—which increased due to the intervention and maintained gains over 6 years—predicted increased respiratory sinus arrhythmia (RSA) during a detached reappraisal task, in which participants attempted to regulate emotions while viewing highly unpleasant images (b = .307, Z = 1.95, p = .052). Higher RSA, which indexes parasympathetic influence on heart rate, has been linked to effortful self-regulation, including emotion regulation (Butler et al., 2006; Segerstrom & Nes, 2007), as well as lower risk of depression and anxiety (Carney et al., 2001). Results suggest that the FBP intervention improved parenting during childhood and adolescence, which led to more flexible heart rate responses fifteen years later in early adulthood. Positive parenting thus may promote resilience by improving long-term emotional functioning.

Toward an Understanding of “Good Grief” in Bereaved Youth: The Protective Roles of Parenting, Spirituality, and Meaning-Making in Post-Bereavement Adaptation

(Kaplow, Julie, PhD, ABPP1; Layne, Christopher, PhD2; Oosterhoff, Benjamin, PhD1; Goldenthal, Hayley, MA1; Arky, Todd, BA3; Gaffney, Donna, Dsc3; Pynoos, Robert, MD MPH2
1University of Texas Health Science Center, Houston, Texas, USA
2UCLA - National Center for Child Traumatic Stress, Los Angeles, California, USA
3Shared Grief Project, Westfield, New Jersey, USA)

We are just beginning to clarify how adaptive grieving may differ from maladaptive grieving in youth. Nevertheless, we know that bereaved youth often engage in behaviors that promote positive adjustment in response to the death of a loved one. Studying factors associated with adaptive grief can help to build theory, develop appropriate assessment tools, inform intervention, and educate the public. In this presentation, we briefly review multidimensional grief theory and provide case examples of adaptive grief reactions. We present quantitative and qualitative evidence linking individual and environmental factors with adaptive grief reactions in a naturalistic data set of bereaved children (N = 94; Mage = 13.02; 53% female; 40% White, 31% African American, 10% Biracial, 5% other). Our findings indicate significant associations between (1) specific parenting behaviors (answering questions about the death, sharing spiritual beliefs), children's spiritual beliefs (believing the person's soul is in a better place; believing you will see him/her in an afterlife) and (2) domain-specific adaptive grief reactions in children (coping with separation distress and/or existential distress). Finally, we describe the Shared Grief Project, a video archive/web site used to inspire bereaved families and help them make meaning of their losses. Implications for intervention are discussed.

Multidimensional View of Factors Impacting PTSD Symptoms in Salvadorian Youth Exposed to Violence

(Houlberg, Benjamin, PhD1; Rojas-Flores, Lisseth, PhD2; Currier, Joseph, PhD3; Herrera, Sofia, PhD1; Cui, Lixian Cui, PhD4
1Fuller Graduate School of Psychology, Pasadena, California, USA
2Fuller Theological Seminary, Graduate School of Psychology, Pasadena, California, USA
3University of South Alabama, Mobile, Alabama, USA)

We are just beginning to clarify how adaptive grieving may differ from maladaptive grieving in youth. Nevertheless, we know that bereaved youth often engage in behaviors that promote positive adjustment in response to the death of a loved one. Studying factors associated with adaptive grief can help to build theory, develop appropriate assessment tools, inform intervention, and educate the public. In this presentation, we briefly review multidimensional grief theory and provide case examples of adaptive grief reactions. We present quantitative and qualitative evidence linking individual and environmental factors with adaptive grief reactions in a naturalistic data set of bereaved children (N = 94; Mage = 13.02; 53% female; 40% White, 31% African American, 10% Biracial, 5% other). Our findings indicate significant associations between (1) specific parenting behaviors (answering questions about the death, sharing spiritual beliefs), children's spiritual beliefs (believing the person's soul is in a better place; believing you will see him/her in an afterlife) and (2) domain-specific adaptive grief reactions in children (coping with separation distress and/or existential distress). Finally, we describe the Shared Grief Project, a video archive/web site used to inspire bereaved families and help them make meaning of their losses. Implications for intervention are discussed.
A multidimensional view of the interacting factors impacting PTSD symptoms holds promise for multiple intervention strategies aimed at different levels of the adolescents’ developmental system (e.g. family, school, neighborhood). A structural equation model was used to examine the role of the family emotional climate, school climate, and exposure to violence as underlying mechanisms of the link between neighborhood quality (e.g. neighborhood disorganization, violence, perceived unsafe) and PTSD among a sample of Salvadorian youth living in adversity (N=900). Findings suggest the important role of family emotional climate (e.g. attachment, support, supervision) within adverse circumstances that is related to lower levels of all three types of exposure to violence and to PTSD symptoms. Meanwhile, school cohesion (e.g. school connectedness, teacher connectedness, supportive relationships) was related to lower levels of PTSD but only related to lower levels of vicarious violence exposure. Neighborhood quality was not directly related to PTSD but was indirectly related through a negative relationship with family emotional climate and school cohesion as well as through a relationship with higher levels of all three types of exposure to violence. Findings remained after examining possible sex, age and school differences among pathways. Implications for treatment will be discussed.

In this symposium, three presenters will discuss recent advances in theory and clinical research on movement- and exercise-based interventions for PTSD from three perspectives. The effects of physical activity are multiple: a) exercise has been shown to have anxiolytic and antidepressant effects, b) acute exercise increases brain-derived neurotrophic factor (BDNF), which is associated with increased memory consolidation and c) walking enhances creativity and could provide positive bodily feedback. In this symposium three different approaches to translating these effects into treatment programs for PTSD will be presented. Simon Rosenbaum will present results from a RCT that compared usual care augmented with a 12-week exercise program to usual care only. Mark Powers will present data on BDNF and PTSD symptoms from a pilot RCT which compared prolonged exposure augmented with acute exercise prior to exposure to prolonged exposure only. Marieke Van Gelderen will present research on an innovative intervention, which applies walking during exposure, thereby overcoming avoidance and increasing consolidation. We will discuss the optimal form of augmenting treatment with physical activity and assess the feasibility of these interventions for various groups of patients with PTSD.

Exploring the Promotion of Sport and Physical Fitness Following a Traumatic Injury: The Canadian Armed Forces and the Role of the Soldier on Program

(Commun, QoL-Prevent-Mil/Vets, Military, M, Industrialized)

Coulthard, Julie, PhD; Woycheshin, David, PhD

1Defence Research and Development Canada, Ottawa, Ontario, Canada
2Canadian Armed Forces, Ottawa, Ontario, Canada

As part of their commitment to providing support to ill/injured military personnel, the Canadian Armed Forces have developed a comprehensive approach in their multi-faceted model of treatment and care following a traumatic injury. One integral initiative is the Soldier On program, which supports both actively serving military personnel and veterans in overcoming their physical and/or mental health injury through the promotion of physical activity and sport. In order to assess the role of Soldier On in helping to meet the needs of injured members, an exploratory
Exercise Augmentation of Exposure Therapy for PTSD: Rationale and Pilot Efficacy Data

Powers, Mark, PhD; Lee-Furman, Eunjung, BA; Medina, Johanna, PhD; Burns, Stephanie, BA; Kauffman, Brooke, PhD; Monfils, Marie, PhD; Asmundson, Gordon, PhD; Diamond, Allison, PhD; McIntyre, Christa, PhD; Smits, Jasper, PhD

1Southern Methodist University, Dallas, Texas, USA
2University of Texas at Austin, Austin, Texas, USA
3University of Houston, Houston, Texas, USA
4University of Regina, Regina, Saskatchewan, Canada
5University of Texas, Dallas, Texas, USA

This randomized study tested the efficacy of exercise as an aid to exposure therapy in adults suffering from posttraumatic stress disorder (PTSD), focusing specifically on the capacity of exercise to manipulate a key target for augmentation of exposure therapy, brain-derived neurotrophic factor (BDNF), which has been shown to play an important role in the extinction of conditioned fear. PTSD is most similar to the translational research on extinction research given there is a definitive conditioning event (the trauma). Exercise significantly increases BDNF activity in regions of the brain critical to fear extinction. Study participants (N=9, 8 females, MAge = 34) were enrolled in a 12-session prolonged exposure therapy (PE) program and randomly assigned to either complete a 30-minute bout of moderate-intensity treadmill exercise (70% of age-predicted HRmax) prior to each session (PE + E) or no exercise prior to the session (PE-Alone).

Consistent with prediction, PE + E increased BDNF to a greater degree than PE-Alone, yielding a large between group effect size (d = 1.08, SE = 0.72). Also consistent with prediction, PE + E outperformed PE-Alone on PTSD symptom reduction, yielding a very large between group effect size (d = 2.65, SE = 0.92). Initial data provide support and some clear direction for using exercise as an augmentation strategy for exposure therapy.

Exercise Augmentation Compared to Usual Care for Posttraumatic Stress Disorder: A Randomised Controlled Trial

Rosenbaum, Simon, PhD
University of New South Wales, Kensington, New South Wales, Australia

The aim of this study was to investigate the impact of a 12-week exercise program in addition to usual care for PTSD. An assessor-blinded RCT was conducted among 81 participants with a DSM-IV-TR diagnosis of primary PTSD. Participants were recruited after admission to a private hospital and randomised to usual care (n=42) or exercise in addition to usual care (n=39). The intervention involved three resistance-training exercise sessions per week (one supervised session, two unsupervised sessions) and a pedometer-based walking program. Usual care involved psychotherapy, pharmaceutical interventions and group therapy. The primary outcome was PTSD symptoms, measured with the PCL-C. Secondary outcomes included the DASS, mobility, strength, anthropometry, physical activity and sleep. Participants had a mean (SD) age of 47.8 years (12.1), 84% were male and 58 participants (72%) completed follow-up assessments for the primary outcome measure. The intervention group significantly improved compared to the control group for PTSD symptoms (mean difference = -5.4, 95% CI -10.5 to -0.3, p=0.04, n=58), depression (p=0.004), waist circumference (p=0.04) and sedentary behaviour (p=0.001). The intervention reduced both PTSD and depressive symptoms at a clinically significant level and improved body composition. Results support the inclusion of structured exercise in the treatment of PTSD.
Walk & Talk: Multi-modular Motion-assisted Memory Desensitization and Reconsolidation (3MDR) for the Treatment of Treatment-Resistant Patients with Posttraumatic Stress Disorder
(Clin Res, Clinical Practice-Tech-Mil/Vets-Theory, Adult, M, Industrialized)

van Gelderen, Marieke, MSc¹; Nijdam, Mirjam, PhD²; Vermetten, Eric, MD, PhD³
¹Centrum '45 Arq. Oegstgeest, Noord-Holland, Netherlands
²Centrum '45 Arq / Academic Medical Center Amsterdam, Amsterdam, Noord-Holland, Netherlands
³Centrum '45 Arq / Leiden University Medical Center, Leiden, Netherlands

Cognitive avoidance may be an important factor why some patients do not fully benefit from current evidence-based treatments, which is reflected in low treatment attendance, non-compliance and early drop-out. A new high intensive intervention aims to overcome this by introducing a novel way of delivering therapy in which patients walk during exposure therapy. Walking enhances memory consolidation and provides positive bodily feedback, thereby improving fear extinction and engagement during exposure therapy. During this manualized intervention patients walk in a virtual environment while they approach self-selected trauma-related images. Data of 2 open pilot studies with treatment-resistant veterans (N=8) and police-officers (N=8) with PTSD will be presented. Patients received 6 sessions of 3MDR. PTSD symptoms, depressive symptoms and quality of life were assessed pre- and post treatment. First results indicate a reliable change in PTSD symptoms in 50% of the patients, a reliable change in depressive symptoms in 38% of the patients and 25% of the patients no longer to meet criteria for a PTSD diagnosis. Patients reported a breakthrough in emotions and the ability to retrieve new associative memories. These results indicate that 1) 3MDR is a potentially effective treatment for treatment-resistant patients and 2) walking seems to be an effective augmentation of exposure therapy.

Symposium
Friday, November 11
1:15 PM to 2:30 PM
Dallas D3

Understanding the Associations between Trauma Exposure and Suicide Risk in Veterans: Using Multiple Methods to Hone in on Novel Risk Factors
(Assess Dx, Mil/Vets-Gender, Adult, M, Industrialized)

DeBeer, Bryann, PhD¹; Bryan, Craig, PsyD²
¹VA VISN 17 Center of Excellence for Research on Returning War Veterans, Waco, Texas, USA
²National Center for Veterans Studies and University of Utah, Salt Lake City, Utah, USA

Suicide is a serious public health issue among trauma exposed Veteran populations. Research that uses a variety of methods (e.g., machine learning, qualitative, and quantitative) is needed to identify novel pathways for suicide risk. Study 1 uses a machine learning technique to classify specific gender-related risk factors for suicidal ideation. Machine learning is a promising tool that may be used to better predict suicide risk in clinical settings. Study 2 focused on a high-risk population of veterans discharging from the inpatient psychiatry unit following a suicide attempt, including those diagnosed with PTSD. A battery of tests was conducted to identify novel risk factors for reattempted suicide in order to improve assessment of suicide risk. Study 3 conducted qualitative interviews with veterans who had experienced military sexual trauma (MST) to identify potential risk factors for suicidal self-directed violence. Veterans described ways in which MST had impacted their desire to die, and negative coping strategies were identified as precursors to self-directed violence. Study 4 indicates that in a population of veterans diagnosed with MST-related PTSD trauma-related negative cognitions and health-related functioning mediated the association between trauma exposure and suicidal ideation. The implications of these findings for clinicians will be discussed.
Using Machine Learning to Predict Suicidal Ideation in OEF/OIF Veterans
(Res Meth, Mil/Vets-Gender, Adult, M, Industrialized)

Gradus, Jaimie, ScD; King, Matthew, PhD; Galatzer-Levy, Isaac, PhD; Street, Amy, PhD
1National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
2VA Boston Healthcare System, Boston, Massachusetts, USA
3New York University Langone Medical Center, New York, New York, USA
4National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA

Suicidal ideation (SI) risk factors are well documented using traditional statistics, yet clinical predication is poor. Analytic methods which are capable of examining large predictor sets with complex interactions (e.g., machine learning) may advance this area, but few studies have examined suicidal behavior with these methods. This study used random forest analysis to develop risk profiles for SI in a national sample Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans (n = 2,344; women oversampled). The goal of the parent survey study was to examine gender differences in deployment and post-deployment experiences; data were obtained across demographic, pre-military trauma, deployment variable (e.g., location, length, combat experiences, sexual harassment, social support), post-deployment adjustment (e.g., transition back to work) and psychopathology (e.g., PTSD, depression, alcohol use, SI) domains. Among women, co-occurring sexual harassment and depression symptoms emerged as the most meaningful predictor of SI. Among men, a more complex picture emerged, and multiple predictor combinations conferring SI risk (i.e., depression and anxiety symptoms; pre-military trauma and alcohol use; pre-military trauma and traumatic brain injury). Potential for this line of research to contribute to suicide risk prediction in clinical settings will be discussed.

Understanding Suicidal Self-Directed Violence among Veterans with Military Sexual Trauma
(Clin Res, Depr-Rape-Mil/Vets-Gender, Adult, M, Industrialized)

Monteith, Lindsey, PhD; Bahraini, Nazanin, PhD; Matarazzo, Bridget, PsyD; Soberay, Kelly, MA, LPC; Gerber, Holly, BA; Barnes, Sean, PhD
Rocky Mountain MIRECC, Denver, Colorado, USA

Veterans exposed to military sexual trauma (MST) are at increased risk for experiencing suicidal ideation, attempting suicide, and dying by suicide (Klingensmith et al., 2014; Kimerling et al., 2015). Identifying mechanisms by which MST influences risk for suicidal self-directed violence (SDV) is critical. The present study aimed to describe ways in which MST influences Veterans and how such sequelae relate to subsequent suicidal ideation and suicide attempt. Qualitative interviews were conducted with 50 Veterans (32 women, 18 men) with MST. Qualitative interview questions focused on the impact of MST on different domains (e.g., interpersonal relationships, self-perception, beliefs regarding whether one’s life was worth living). Preliminary results suggest that MST impacted Veterans in several important ways, including interpersonal relationships, intimacy, trust, and beliefs regarding self-efficacy. Many Veterans described ways in which MST influenced their desire to live and die. Additionally, Veterans described engaging in strategies to cope with MST (e.g., risky behaviors, substance use, isolating) that they also identified as acute precipitants to subsequent SDV. These findings suggest several potential pathways by which MST confers risk for suicidal SDV and underscores the importance of additional research examining the relevance of these constructs to SDV following MST.

Improving Suicide Risk Assessment among Psychiatrically Hospitalized Veterans with PTSD
(Clin Res, Assess Dx, Adult, M, N/A)

Barnes, Sean, PhD; Forster, Jeri, PhD; Monteith, Lindsey, PhD; Bahraini, Nazanin, PhD
Rocky Mountain MIRECC, Denver, Colorado, USA

The highest risk of death by suicide occurs following inpatient discharge, presumably after patients deny
Factors that Mediate and Moderate the Relationship between PTSD, Depression, and Suicidal Ideation in a Military Sexual Trauma Sample. (Clin Res, Depr-Rape-Mil/Vets, Prof, M, Industrialized)

Holliday, Ryan, MA1; Holder, Nicholas, BS1; Wiblin, Jessica, BA1; Clem, Matthew, Med2; Suris, Alina, PhD, ABPP3

1VA North Texas Health Care System & University of Texas Southwestern Medical Center, Dallas, Texas, USA
2University of Texas Southwestern, Dallas, Texas, USA

Depression and posttraumatic stress disorder (PTSD)-related hyperarousal independently predict suicidal ideation (SI) in veterans with military sexual trauma (MST)-related PTSD. However, previous analyses did not take into account how competing predictors of SI may mediate and/or moderate this relationship. One hundred twenty-eight male and female veterans with MST-related PTSD were administered measures of quality of life (QoL), trauma-related negative cognitions (NCs), and health-related functioning. Age, gender, education, ethnicity, previous childhood sexual assault (CSA), and comorbid borderline personality disorder (BPD) were also assessed. NCs, QoL, PTSD criteria C and D, and health-related functioning were entered as mediators; gender, ethnicity, CSA, and BPD were entered as moderators; and age and education were entered as covariates. The relationship between hyperarousal and SI was mediated by depression and NCs about self. The relationship between depression and SI was mediated by NCs about self, hyperarousal, and health-related role limitations due to emotional problems, vitality, social functioning, and mental health. Both hyperarousal and depression remained significant predictors of SI in their respective mediation models. Future research should focus on further understanding the relationship between these variables and SI in this population.

Symposium
Friday, November 11
1:15 PM to 2:30 PM
San Antonio Ballroom A


Pfaltz, Monique, PhD1; Michael, Tanja, PhD2; Schnyder, Ulrich, MD2

1Zurich University, Zurich, Switzerland
2Saarland University, Saarbruecken, Saarland, Germany

Four clinicians and researchers will present findings from cross-sectional and longitudinal studies assessing survivors of war, torture, and other traumatic experiences as well as emergency workers and healthy individuals exposed to emergencies and analogue trauma. Our studies examine whether emotion recognition abilities and strategies predict symptoms of posttraumatic stress and depression and changes in these symptoms. Results show that specific emotion regulation strategies, such as state rumination and expressive suppression, are significant predictors of posttraumatic stress and depression with pre-trauma rumination showing sensitive and specific prediction of post-trauma PTSD. Furthermore, results reveal that emotion
recognition abilities are linked to trauma history (e.g., adverse childhood experiences, number of trauma types) but not to trauma-related symptoms. The findings serve as an important basis for new interventions, which aim to modify predictors of risk.

**Emotion Recognition and Expressive Suppression in Traumatized Individuals with and without Posttraumatic Stress Disorder**  
(Clin Res, Acute-Affect/Int-Assess Dx-Chronic, Adult, A, Industrialized)

Pfaltz, Monique, PhD; Passardi, Sandra, MSc; Plichta, Michael, PhD; Wingenbach, Tanja, MSc; Hassanpour, Katayun, MD; Mueller-Pfeiffer, Christoph, MD; Michael, Rufer, MD; Schnyder, Ulrich, MD

1Zurich University, Zurich, Switzerland  
2University of Bath, Bath, United Kingdom  
3University Hospital Zurich, University of Zurich, Zurich, Switzerland

Prior studies have shown that individuals with posttraumatic stress disorder (PTSD) have difficulties recognizing facial expressions. We aimed at replicating these findings and assessed if suppression of one’s facial expressions (expressive suppression, ES) affects emotion recognition (ER) deficits in PTSD. Individuals with PTSD (n=34), traumatized (TC, n=34) and non-traumatized healthy controls (HC, n=29) were watching movies showing facial expressions and indicated which emotion was presented in each movie. ES during this task was assessed by self-report and by facial electromyography (EMG). Surprisingly, the PTSD group showed no ER deficits. Yet, post-hoc analyses revealed that for emotions presented with moderate intensity, higher numbers of traumatic events were linked to better recognition of negative (anger, fear, disgust, contempt) and poorer recognition of positive emotions (happiness, pride) across groups. Also, reaction times were longer in individuals with higher rates of childhood physical abuse and emotional neglect. Compared to TC and HC, PTSD patients reported more ES and showed diminished Corrugator and Zygomaticus EMG responses to expressions of anger and joy, pointing to reduced facial reactivity. Self-report and EMG measures of ES were, however, unrelated to ER. Emotion processing and ER may thus be related to (childhood) trauma, rather than to PTSD.

**Emotion Regulation Strategies in Severely Traumatized Refugees - a Follow-Up Study**  
(Clin Res, Refugee-Torture-Civil/War, Adult, A, Industrialized)

Morina, Naser, MA; Bryant, Richard, PhD; Schick, Matthi, MD; Schnyder, Ulrich, MD; Nickerson, Angela, PhD

1University Hospital Zurich, Zurich, Switzerland  
2University of New South Wales, Sydney, New South Wales, Australia  
3University Hospital Zurich, University of Zurich, Zurich, Switzerland  
4Zurich University, Zurich, Switzerland

Longitudinal studies of severely traumatized war and torture survivors are needed to study changes in emotion dysregulation and mental health over time. We are currently conducting a follow-up study three years after the first assessment with N=134 participants of severely traumatized refugees. The aim of this longitudinal study was to examine changes over time in emotion regulation strategies and their role in symptoms of PTSD, depression, and health-related quality of life. Preliminary results indicate that emotion regulation strategies represent an important mechanism to explain psychological responses to trauma in severely traumatized war and torture survivors. Implications for tailored therapeutic interventions will be discussed.

**A Prospective Study of Pre-trauma Risk Factors for Posttraumatic Stress Disorder and Depression**  
(Prevent, Cog/Int-Depr-Health-Illness, Adult, A, Industrialized)

Wild, Jennifer, DPsysC(Clin); Smith, Kirsten, Clinical Psychologist; Thompson, Erin, DPsysC(Clin); Bear, Francine, BSc Hons Psychology; Lommen, Miriam, PhD; Ehlers, Anke, PhD

1Oxford University, Oxford, Oxfordshire, United Kingdom  
2University College London, London, Middlesex, United Kingdom  
3University of East Anglia, London, Middlesex, United Kingdom

We aimed to identify pre-trauma risk factors for posttraumatic stress disorder (PTSD) or major
Intrusive Memories of Experimental Trauma: Findings from Experimental Research
(Prevent, Clin Res-Cog/Int-Prevent-Sleep, Adult, A, N/A)

James, Ella, PhD; Holmes, Emily, PhD
Cambridge, Cambridge, Cambridgeshire, United Kingdom

Haunting intrusive memories of a traumatic event in the form of involuntary mental images (intrusive memories) are a hallmark symptom of posttraumatic stress disorder, and can occur across other mental health disorders. We use a laboratory-based experimental psychopathology approach, the trauma film paradigm, to model trauma exposure (film footage with traumatic content) and examine intrusive memories in controlled conditions. We will discuss data which has shown low emotional response at the time of traumatic exposure (film viewing) is associated with fewer subsequent intrusive memories (Clark et al., 2015, Cog & Emo). We will also discuss experimental work using the trauma film paradigm in combination with fMRI which allows investigation into the peritraumatic processes associated with later intrusion development (Clark et al., 2016, Psych Med). Finally, we present findings from research which demonstrates that full sleep deprivation on the first night after viewing traumatic film material also leads to fewer subsequent intrusive memories (Porcheret, Holmes et al., 2015, Sleep).

Symposium
Friday, November 11
1:15 PM to 2:30 PM
San Antonio Ballroom B

Identifying Influential PTSD Symptoms, Trauma Exposure, and Social Perceptions on Use of Intimate Partner Aggression or Parent-to-Child Aggression: Recent Research Findings and Clinical Implications
(Clin Res, Aggress-Clin Res-DV, Adult, M, Industrialized)

Macdonald, Alexandra, PhD1; Creech, Suzannah, PhD2; Van Voorhees, Elizabeth, PhD3
1The Citadel, Military College of South Carolina, Charleston, South Carolina, USA
2VA VISN 17 Center of Excellence for Research on Returning War Veterans, Waco, Texas, USA
3Durham VAMC, Mid-Atlantic MIRECC, Duke University, Durham, North Carolina, USA

Intimate partner aggression (IPA) and parent-to-child aggression (PCA) are serious national public health problems. Research has documented a consistent association between posttraumatic stress disorder (PTSD) and IPA. Questions remain, however, as to the specific nature of the association. Further information regarding the relationship between symptoms of PTSD and propensity to use IPA/PCA is necessary to refine trauma-informed interventions and improve their efficacy. This symposium will focus on recent research that identifies specific PTSD symptoms and responses to trauma exposure as possible predictors of IPA/PCA use. Two studies examine mediators and moderators of the relationship between trauma exposure and aggression use in intimate and parent-child relationships. Results from these studies indicate that both emotional processes and skills deficits associated with trauma exposure increase risk for use of aggression. Two clinical researchers will then report results from studies of manualized, trauma-informed treatments that...
translate these findings into interventions that include information on emotional identification and skills acquisition to reduce or prevent the use of aggression among treatment-seeking veterans. Results indicate that use of trauma-informed interventions for IPA reduction has benefits.

**Trauma Exposure and Aggression towards Partners and Children: Differential Contextual Influences of Fear and Anger**

(Clin Res, Aggress-CPA-DV-Gender, Adult, M, Industrialized)

Marshall, Amy, PhD; Roettger, Michael, PhD; Mattern, Alexandra, BA; Feinberg, Mark, PhD; Jones, Damon, PhD
1Penn State University, University Park, Pennsylvania, USA
2Australian National University, Acton, Australian Capital Territory, Australia

Veterans’ use of intimate partner aggression (IPA) is a serious public health concern in need of better understanding (Marshall, Panuzio, & Taft, 2005). Specifically, research on the theorized mechanisms that underlie the relationship between posttraumatic stress disorder (PTSD) symptoms and IPA use is needed, given the recent development of trauma-informed IPA intervention for this population (Taft, Macdonald, Creech, Monson, & Murphy, 2015). This study examined social skills deficits as a mediator of the relationship between PTSD symptoms and use of IPA among 92 male returning veterans. PTSD symptoms were assessed through clinician interview, IPA use was assessed through self- and partner-report, and social skills deficits were assessed in a laboratory task in which veterans listened to problematic marital situations and responded with what they would say or do in each situation.

Responses were coded for social competency. When all PTSD symptom clusters were entered into a regression predicting social skills deficits, only emotional numbing emerged as a unique predictor. Social skills deficits significantly mediated the relationship between veterans’ PTSD symptoms and use of IPA among psychological (but not physical) IPA. Findings extend prior research on McFall’s (1982) social information processing model as it relates to veterans’ PTSD symptoms and use of IPA.
Anger, Hostility, and Aggression among US Veterans Receiving Residential PTSD Treatment

Schumm, Jeremiah, PhD1; Birkley, Erica, PhD2; Chard, Kathleen, PhD2; Eckhardt, Christopher, PhD3
1Cincinnati VA Medical Center & University of Cincinnati, Cincinnati, Ohio, USA
2Cincinnati VA Medical Center, Cincinnati, Ohio, USA
3Purdue University, West Lafayette, Indiana, USA

Military veterans with PTSD who have high anger and hostility are at risk for aggression and demonstrate less benefit from PTSD-focused treatments. This suggests a need for interventions that target anger, hostility, and aggression among veterans with PTSD. The primary aim of this study is to examine whether participation in a residential PTSD treatment program that includes cognitive processing therapy along with a newly-developed protocol for anger/hostility is associated with improvements in anger/hostility and to test whether higher anger and hostility moderates the degree of PTSD symptom reduction during treatment. Participants were 60 military veterans from a US Veterans Affairs residential treatment program. Veterans exhibited significant pre- to post-treatment reductions on measures of anger, hostility, and verbal aggression. Veterans with higher pre-treatment anger and hostility had less improvements in PTSD symptoms during treatment versus those with lower pre-treatment anger and hostility. These findings indicate that residential treatment, which includes cognitive processing therapy and cognitive-behavioral treatment for anger/hostility, may be effective. Findings also suggest that interventions may be needed prior to engaging in PTSD-focused treatment to address anger/hostility among veterans with PTSD who exhibit high levels of anger and hostility.

Examining PTSD Symptoms as a Predictor of Intimate Partner Violence Intervention Outcomes
(Clin Res, Clin Res-DV, Adult, M, Industrialized)

Macdonald, Alexandra, PhD1; Creech, Suzannah, PhD2; Benzer, Justin, PhD3; Poole Laposta, Gina, PhD4; Murphy, Christopher, PhD5; Taft, Casey, PhD6
1The Citadel, Military College of South Carolina, Charleston, South Carolina, USA
2VA VISN 17 Center of Excellence for Research on Returning War Veterans, Waco, Texas, USA
3VA Boston Healthcare System, Bedford, Massachusetts, USA
4Boston VA Healthcare System, Brockton, Massachusetts, USA
5University of Maryland Baltimore County, Baltimore, Maryland, USA
6National Center for PTSD at VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA

Symptoms of posttraumatic stress disorder (PTSD) are associated with higher rates of intimate partner violence (IPV) (Taft et al., 2011). A recent trauma-informed treatment to cease IPV among veterans, Strength at Home, has demonstrated efficacy (Taft et al., 2015). Even within a trauma-informed treatment, it is important to examine the influence of pre-treatment PTSD symptoms on response to treatment. Using data from a sample of male Veterans who attended the Strength at Home program, this study examined predictors of physical aggression recidivism and change in psychological aggression from pre- to post-treatment, controlling for demographic (age, race) and treatment (court-ordered status and treatment condition) variables. Results from a logistic regression indicated that only pre-treatment hyperarousal symptoms uniquely predicted physical aggression recidivism ($p = .026$). Results from a hierarchical linear regression indicated the only significant unique predictors of change in psychological aggression were race, pre-treatment re-experiencing symptoms, and pre-treatment avoidance symptoms (all $p$’s <.05). Findings suggest that even within a trauma-informed treatment model, pretreatment PTSD symptoms have the potential to affect the efficacy of IPV interventions and should be a consideration when initiating treatment.
Panel Presentation
Friday, November 11
01:15 PM to 02:30 PM
Dallas A1

What the Heck is Trauma-Informed Care Anyway? Unraveling the Mystery One State at a Time
(Train/Ed/Dis, Commun-Pub Health-Social, Child/Adol, I, N/A)

Hanson, Rochelle, PhD1; Lang, Jason, PhD2; Ake, George, PhD3; Donisch, Katelyn, MPH4; Gewirtz, Abigail, PhD LP5; Agosti, Jen, MPP6

1Medical University of South Carolina, Charleston, South Carolina, USA
2Child Health and Development Institute, Farmington, Connecticut, USA
3Duke University School of Medicine, Durham, North Carolina, USA
4Ambit Network, University of Minnesota, Minneapolis, Minnesota, USA
5University of Minnesota-Twin Cities Campus, St Paul, Minnesota, USA
6JRA Consulting, Ltd., North Andover, Massachusetts, USA

Given the high prevalence of trauma and its significant public health impact, increased emphasis is placed on the need to provide trauma-informed care and develop trauma-informed service systems. The intent is to increase awareness of trauma and its impact and de-stigmatize those suffering from trauma-related disorders, while also insuring that service systems are sensitive to the needs of vulnerable populations, including providers and recipients of these services. This is certainly an important endeavor. However, the ensuing challenges include lack of definitional clarity, limited and/or wide variability in measurement of constructs, and little consensus on the best ways to develop trauma-informed systems. Importantly, concerted and empirically driven methods to evaluate the effectiveness of these efforts are lacking, which means we do not yet know whether these actually yield positive outcomes. Panelists include those leading four initiatives across the United States, focused on implementation of trauma-informed care and trauma-informed services across the behavioral health, child welfare, schools, pediatric, and juvenile justice service systems. After an overview of definitional, conceptual, and measurement issues, panelists will share their experiences and field questions about lessons learned to stimulate discussion and guide future research, practice, and policy.

Workshop Presentation
Friday, November 11
1:15 PM to 2:30 PM
Dallas D2

Addressing Perpetration and Moral Injury in Cognitive Processing Therapy
(Practice, Aggress-Cog/Int-Rape-Mil/Vets, Adult, M, Industrialized)

Healy, Ellen, PhD1; Bassett, Gwendolyn, LCSW2

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

Cognitive Processing Therapy (CPT) is an evidence-based cognitive behavioral therapy used to treat PTSD in individual and group settings. CPT has been shown effective for a wide range of traumas, including traumas of perpetration. There have been assertions that CPT does not sufficiently address issues of moral injury (e.g., Litz et al., 2009). However, we contend that clinical concerns related to perpetration and/or moral injury when a patient has PTSD can be well-addressed within the CPT framework. This workshop, presented by two experienced CPT trainers, will discuss the theoretical and clinical issues related to providing CPT for patients who have a history of perpetration and/or moral injury in both military and civilian settings. We will illustrate that the concept of moral injury can be expanded to include not just service members with war-zone events but also civilians with civilian morally injurious events. Additionally, the workshop will focus on specific clinical strategies for skillfully providing CPT for PTSD to these patients. The workshop will be interactive with case examples and discussion. It will provide specific strategies for addressing assimilated and over-accommodated stuck points as well as patients’ religious and spiritual concerns.
Oral Paper Presentations  
Friday, November 11  
1:15 PM to 2:30 PM  
Houston Ballroom B

Intergenerational - Parenting One Paper Session

Prenatal Stress Related Variations of the Epigenome across Three generations: Maternal and Grandmaternal Exposure to Community and Intimate Partner Violence during Pregnancy  
(Bio Med, Comm/Vio-DV-Genetic-Intergen, Child/Adol, M, Global)

Serpeloni, Fernanda, PhD Student¹; Radtke, Karl, MSc²; Henning, Frederico, PhD²; Becker, Tobias, PhD³; Elbert, Thomas, PhD⁴; Nätt, Daniel, PhD⁵  
¹University of Konstanz, Department of Psychology; Clinical and Neuropsychology, Konstanz, Germany  
²University of Konstanz, Konstanz, Germany  
³University of Zurich, Zurich, Switzerland  
⁴University of Konstanz & vivo international, Konstanz, Germany  
⁵Linkoping University, Linkoping, Sweden

Maternal prenatal stress has been associated with child’s increased risk for psychopathology as well as epigenetic variations. However, current knowledge of the epigenetic modifications that are mediated by prenatal stress is limited to a few well-characterized candidate loci. Furthermore, the persistence of epigenetic alterations in further generations is widely debated. To investigate the extent of the genome that is associated with prenatal stress, we assessed exposure to intimate partner violence and community violence during pregnancy from 121 triads (grandmother, mothers and children) that inhabit a community in Brazil with high levels of violence and conducted an epigenome-wide association study. DNA was extracted from saliva and processed by the Infinium HumanMethylation450 BeadChip. We found 44 CpGs associated with prenatal exposure to violence within the 2nd and 3rd generations. Besides the usual genes frequently reported in the literature to be linked with early child adversities (NR3C1, FKBP5) we also detected novel genes (STK32C, LHX9, CORIN). Interestingly, epigenetic modifications associated to increase prenatal stress were also correlated to fewer depression symptoms. The study shows the effects across one generation are stronger than across two generations. Our analysis suggests that DNA methylation responses associated with prenatal stress are adaptive.

Considering Postpartum Depression in the Intergenerational Transmission of Maltreatment and its Mental Health Sequelae  
(Prevent, CPA-Depr-Dev/Int-Intergen, Lifespan, M, Industrialized)

Choi, Karmel, MA  
Duke University, Durham, North Carolina, USA

This study tested the bridging role of postpartum depression between maternal childhood maltreatment and child exposure to maltreatment and later psychopathology. Experiences of childhood maltreatment and postpartum depression were self-reported by 1,106 mothers participating in the Environmental Risk (E-Risk) Longitudinal Twin Study. Child exposure to maltreatment before 12 years was assessed via multiple clinical interviews, and child internalizing/externalizing symptoms at 12 years were reported by mothers and school teachers. Using structural equation modeling (SEM), twin outcomes were regressed onto latent factors reflecting shared risk at the family level and entered into a predictive model, which fit well (RMSEA=.04, CFI/TLI=.99/98). Maternal childhood maltreatment predicted postpartum depression (B=.22, p<.001), which in turn predicted child maltreatment exposure (B=.22, p<.001), which then predicted child internalizing and externalizing symptoms at 12 years (B=.27/B=.34, p<.001). Indirect effects through postpartum depression were significant and persisted after controlling for maternal age at childbirth and socioeconomic disadvantage. Identifying and treating maternal depression in the earliest years may be an important way to interrupt the cycle of trauma and improve both maternal and child outcomes: an efficient strategy from a public health standpoint.
The Relation among PTSD Symptom Clusters and Parenting Stress
(Assess Dx, CPA-CSA-DV-Intergen, Adult, I, Industrialized)

Calvert, Maegan, MS PhD Student; Petretic, Patricia, PhD; Berman, Ilana, BA; Lentz, Mariah, Undergraduate
University of Arkansas, Fayetteville, Fayetteville, Arkansas, USA

Histories of childhood abuse and intimate partner violence impact current psychopathology symptoms and parenting outcomes. However, it is important to understand how the different PTSD symptom clusters affect specific parenting behaviors and attitudes in order to both assess for specific problem areas in parenting and guide treatment. Participants (N = 156) were mothers of children ages 5 to 10 representing diverse ethnicities, socio-economic statuses, and geographic regions. Participants completed the Parenting Stress Index-4 and PTSD Checklist for DSM-5, as well as ACEs and the Childhood Trauma Questionnaire. Approximately 15% of the sample had 4+ ACES and 34% scored over 40 on the PCL-5. Regression analyses indicated PTSD was a significant predictor of parent characteristics that may be contributing to stress associated with the parenting role (r² = .44, p < .001). Although, further analyses indicated that PTSD symptoms of intrusion (B = -1.51, p > .05) and arousal (B = .548, p > .05) did not significantly predict parenting stress; by contrast, avoidance (B = 8.51, p < .001) and negative alterations in cognitions (B = 3.69, p < .001) did significantly predict parenting stress (e.g. role restriction, attachment, and competence). Consequently, avoidance symptoms and negative cognitions are imperative treatment targets of PTSD in women with children.

Intergenerational Transmission of PTSD in Australian Vietnam Veterans and Their Children
(Pub Health, Mil/Vets-Intergen-Gender, Adult, A, Industrialized)

O'Toole, Brian, PhD
The University of Sydney, Sydney, New South Wales, Australia

The association between parental PTSD and offspring PTSD and other disorders was examined in a non-clinical epidemiological cohort of Australian Vietnam veterans, their wives and their sons and daughters, assessed using standardized psychiatric interviews. Veterans were interviewed twice, in 1992-4 and 2005-6; wives were interviewed in 2006-7, and offspring in 2012-14. Independent variables comprised PTSD diagnosis and symptom loads in each of the domains of re-experiencing, numbing and avoidance, and hypersensory. A total of 315 offspring (135 sons and 180 daughters) were interviewed from 197 families; 137 of these also included wives. Statistical analysis used multi-level modelling to compute odds ratios and 95% confidence intervals while controlling for clustering effects within families. Veteran PTSD diagnosis in wave 1 was associated with PTSD diagnosis in both sons and daughters, but wave 2 PTSD diagnosis was not, and neither was wife PTSD diagnosis. Veteran PTSD diagnosis at wave 2 and wife PTSD were not associated with any other psychiatric diagnosis in sons. Veteran depression was also a risk factor for sons’ PTSD. Veterans’ symptom loads were associated with PTSD severity in daughters but not sons in each of the symptom domains. Overall, the evidence points to a significant association between veteran PTSD and risk of PTSD in sons and daughters.

Oral Paper Presentations
Friday, November 11
1:15 PM to 2:30 PM
Houston Ballroom C

Disaster Related Paper Session

Community Unemployment and Disaster-Related Stressors Shape Risk for Posttraumatic Stress in the Longer-Term Aftermath of Hurricane Sandy
(Pub Health, Acute-Nat/Dis, Adult, M, Industrialized)

Lowe, Sarah, PhD1; Sampson, Laura, BA2; Gruebner, Oliver, PhD3; Galea, Sandro, MD, DrPH4
1Montclair State University, Montclair, New Jersey, USA
2Boston University School of Public Health, Boston, Massachusetts, USA
Persons living in communities with limited resources are at greater risk of posttraumatic stress (PTS) after disasters, especially if they were highly exposed. The support deterrence desistence model (Kaniasty & Norris, 2009) and conservation of resources theory (Hobfoll, 1989) suggest that this risk might increase in the longer-term aftermath of disasters. In the current study, we aimed to test this hypothesis. Participants (N = 841) were from a population-based sample of adults who lived in New York City communities affected by Hurricane Sandy, and were surveyed either 13-16 months (T1) or 25-28 months (T2) postdisaster. Participants reported on their exposure to disaster-related stressors and PTS. The percentage of residents who were unemployed in participants’ census tracts was collected from the 2008-2012 American Community Survey. Multilevel models found that disaster-related stressors were more strongly associated with PTS for participants living in communities with higher unemployment, and that this trend was limited to T2. Mapping of community unemployment and disaster-related stressors suggested that communities in Southern Brooklyn and Queens, and Northeastern Staten Island were at particularly high risk for PTS. The results suggest the need for ongoing support to economically disadvantaged communities in which residents endured disaster-related stressors.

Reducing the Future Risk of Trauma: Harnessing EU Policy Strategies and International Treaties to Advance Population and Disaster Mental Health

Reifels, Lennart, PhD
University of Melbourne, Carlton, Victoria, Australia

The global increase in the frequency and severity of natural disasters and extreme climatic events necessitates more efficient global and national strategies to reduce the likelihood and impact of traumatic consequences for disaster affected populations (Murray et al., 2015; UNISDR, 2015). The recent inclusion of ‘mental health’ in the Sendai Framework for Disaster Risk Reduction marks a pivotal point in the recognition of the significant burden of disasters on population mental health, and a global commitment to reducing its impacts (Tsutsumi et al., 2015). Yet, effective disaster risk reduction vitally hinges on concerted national implementation and integration within established fields of practice. The objective of this comparative study was therefore to analyse European Union and national level policy strategies (in the UK, the Netherlands, and Germany) in regard to the implementation of the Sendai Framework and with a view to advance population mental health in the context of disaster. Based on a systematic international literature and nationally-focussed policy review, and thematic analysis of key informant interviews with 28 disaster mental health and risk reduction experts, study findings outline existing opportunities, current challenges and the state-of-the-art of the integration of disaster risk reduction within disaster mental health policy and practice.

Exposures, PTSD and Lower Respiratory Symptoms among Rescue/Recovery Workers and Community Members after the 9/11 World Trade Center Attacks - a Longitudinal Mediation Analysis

Wyka, Katarzyna, PhD1; Stellman, Steven, PhD, MPH2; Jordan, Hannah, MD, MPh3
1City University of New York, New York, New York, USA
2New York City Department of Health and Mental Hygiene, Queens, New York, USA
3New York City Department of Health and Mental Hygiene, Long Island City, New York, USA

Concurrent post-traumatic stress disorder (PTSD) and lower respiratory symptoms (LRS) are common among survivors of the September 11, 2001 (9/11) World Trade Center (WTC) attacks. We used longitudinal path analysis to assess the nature of the relationships among 9/11 exposures, PTSD and LRS over a 10-year period (3 follow-up surveys) in 12,398 WTC rescue/recovery workers (RRW) and 12,745 exposed community members. PTSD predicted LRS and LRS predicted PTSD at subsequent follow-ups. Among RRW, PTSD mediated the relationship between 9/11-related physical exposures (dust cloud, long duration of work) and LRS (p=.005), and LRS...
mediated the physical exposures-PTSD relationship (p=.003). Findings were similar among community members. For RRW, high 9/11-related psychological exposure predicted both PTSD and LRS at the follow-up (p<.001); PTSD mediated the psychological exposure-LRS relationship (p<.001), but LRS did not mediate the exposure-PTSD relationship. In contrast, both pathways were significant among community members; PTSD mediated the psychological exposure-LRS relationship (p<.001) and LRS mediated the psychological exposure-PTSD relationship (p=.002). PTSD and LRS each mediated the other, with subtle differences in patterns seen in RRW and community members. A diagnosis of either should trigger assessment for the other; treatment should be carefully coordinated.

Psychological Outcome in Patients Hospitalized with Physical Injuries Caused by the Terror Attacks in Norway July 22nd 2011 - Relationship to Medical and Psychological Factors

(Patient's name is in bold. Discussants' names are underlined. Moderators' names are in bold and underlined. Guides to Keyword Abbreviations located on pages 2-3. (Primarykeyword, SecondaryKeywords, Populationtype, PresentationLevel, Region))
CONCURRENT SESSION SEVEN

Master Clinician
Friday, November 11
2:45 PM to 4:00 PM
Dallas B/C

Compassion Focused Therapy: Is Compassion an Antidote to Shame and an Effective Treatment of Complex PTSD?
(Practice, Complex, Adult, M, Global)

Lee, Deborah, PhD
Berkshire Traumatic Stress Service, Berkshire, United Kingdom

Those who have been repeatedly traumatised at the hands of others have many challenges to face as they discover a life without trauma and learn how to live in a mind that can flourish. Predominant issues of self-blame, self-loathing, lack of trust, interpersonal difficulties and struggles to regulate threat based emotions are prevalent in therapy. Effective treatments of interpersonal trauma suggest phased based approaches for Complex PTSD (Cloitre, 2010) yet the precise ingredients of the phases are still up for debate. Key struggles for clients are to discover that their lives are not of their making or their fault and that can take responsibility to act and feel differently. Can compassion help you discover what you don’t know and help you feel what you have never felt? This masterclass explores the use of compassion focused therapy offers clients the psychoeducation to discover their lives are not their fault and the brain training exercises to help them develop the capacity to feel emotionally safe with and connected to others. Perhaps this could offer a vital precursor to change the emotional context of minds and allow clients to think differently about their traumatic experiences in a way that allows them to hold themselves in mind with kindness, understanding, wisdom and courage. Compassion focused therapy was developed by Gilbert and his colleagues (Gilbert, 2005, 2009). The explicit goal is to develop, access and stimulate positive affect associated with self-soothing in the mind and body of the patient in order to promote an inner sense of psychological safeness (Gilbert, 2005). The therapeutic work presented in this talk can be considered as part of phase 2 as compassionate resilience enhances affect regulation, interpersonal functioning, problem solving and the ability to hold trauma memories with a caring compassionate mind. Compassionate resilience enhances feelings of self-soothing and safeness in these memories and reduces self-critical maintenance cycles by developing compassionate self-talk. It helps the development of the capacity to self-soothe to those who feel deeply shamed about who they are and what they have been through.

Invited Panel
Friday, November 11
2:45 PM to 4:00 PM
Houston Ballroom A

Invited Panel The PTSD Definition in DSM-5 and ICD-11: Evolution or Devolution?
(Assess Dx, Assess Dx, Adult, I, Global)

O'Donnell, Meaghan, PhD; Kilpatrick, Dean, PhD; Maercker, Andreas, PhD, MD; Hoge, Charles, MD
1 Phoenix Australia: Centre for Posttraumatic Mental Health: The University of Melbourne, Carlton, Victoria, Australia
2 Medical University of South Carolina, Charleston, South Carolina, USA
3 University of Zurich, Zurich, Zurich, Switzerland
4 Walter Reed Army Institute of Research/US Army, Bethesda, Maryland, USA

The diagnostic definition of PTSD has important implications for clinical practice, research, service eligibility, and compensation. Few would argue that the DSM-IV and ICD-10 diagnostic formulations for PTSD were perfect, and many aspects of both diagnoses received criticism. However, the DSM-IV and ICD-10 PTSD diagnoses guided clinical and research practice for years. In an attempt to address apparent problems with these definitions, the DSM-IV diagnostic criteria for PTSD were revised in 2013 with the publication of DSM-5, and more substantial definitional changes have been proposed for ICD-11. These revisions in the PTSD diagnosis have generated considerable attention, as well as high profile debates in the academic literature. This panel
discussion will examine the DSM-5 and proposed ICD-11 changes to the PTSD diagnosis from several perspectives. Particular emphasis will be placed on whether the DSM-5 and proposed ICD-11 revisions are well-justified clinically and scientifically, and whether they represent evolutionary improvements as some experts maintain, or whether they may not have improved the DSM-IV or ICD-10 diagnoses and actually set the field back, as other experts have suggested. Importantly the panel will discuss future directions and ideas for ways forward.

Symposium
Friday, November 11
2:45 PM to 4:00 PM
Dallas A2

Innovative Technological Advances in Child Trauma Prevention, Early Intervention, and Treatment
(Tech, Clin Res-Prevent, Child/Adol, I, Industrialized)

Jaycox, Lisa, PhD1; Hoffman, Julia, PsyD2
1RAND Corporation, Arlington, Virginia, USA
2National Center for PTSD – Dissemination and Training Division, VA Palo Alto Health Care System, Menlo Park, California, USA

Despite the existence of evidence-based prevention, intervention, and treatment for trauma-related symptoms in children, there are many barriers to dissemination and implementation of such practices nationally. Technological advances offer the promise of overcoming many of these barriers. In this symposium, we present four new advances that cover the spectrum from prevention to treatment. In the prevention domain, we present a new mobile app (Help Kids Cope) designed for parents of children who have experienced 10 types of disaster. In terms of early intervention, we present a new on-line curriculum for stress and trauma in high school students (Life Improvement for Teens, or LIFT) and the pilot data that supports it. In the treatment domain we present two new tools that support Trauma-Focused CBT - a game for pediatric patients (Triangle of Life) and a tablet-based implementation support and child engagement tool for therapists. These four innovations will be discussed by an expert in adult trauma technologies, Julia Hoffman (National Director for the VA’s Mobile Health Division).

A Tablet-Based Approach to Enhance Child Engagement and Provider Fidelity in Trauma-Focused CBT
(Clin Res, Tech-Train/Ed/Dis, Child/Adol, I, Industrialized)

Hanson, Rochelle, PhD1; Davidson, Tatiana, PhD1; Saunders, Benjamin, PhD1; Danielson, Carla, PhD1; Adams, Zachary, PhD1; Cohen, Judith, MD1; Deblinger, Esther, PhD1; Ruggiero, Kenneth, PhD1
1Medical University of South Carolina, Charleston, South Carolina, USA
2Allegheny General Hospital, Pittsburgh, Pennsylvania, USA
3Rowan University, Stratford, New Jersey, USA

Efficacious mental health treatments are delivered with variable fidelity in mental health service settings. We developed a tablet-based toolkit to support providers’ delivery of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). The tablet toolkit is designed to enhance the quality, accessibility, and efficiency of treatment via interactive activities (e.g., videos, interactive games, drawing activities) that providers use in session with children and caregivers. After the toolkit was designed via an iterative process informed by experts, providers, and patients, we completed an NIMH-funded pilot study in which we partnered with 13 providers across 4 community-based clinics. We exceeded all benchmarks for feasibility in the pilot, including those associated with pace of patient referral (24 referred within 2 months vs. a goal of 20 in 4 months); patient participation (87% of 31 referred families were enrolled); retention of patients in treatment (89% of 27 enrolled patients completed ≥ 6 sessions); retention of patients in the study (89% completed ≥ 2 study assessments; 84% completed all assessments); and audiorecording and uploading of sessions into our secure system (87% of 231 sessions were recorded and uploaded). The use of tablet-based applications is a promising new direction that may have potential to improve quality of care in child mental health treatment.
Helping Kids Cope: A Mobile App to Ready Families for the Next Disaster
(Train/Ed/Dis, Nat/Dis-Prevent-Tech, Child/Adol, I, Global)

Brymer, Melissa, PhD, PsyD
National Center for Child Traumatic Stress at UCLA, Los Angeles, California, USA
Parents often need guidance on how to support and keep their children safe during and after a disaster. Following the Joplin tornadoes, parents indicated that resources were disseminated but they did not have access to them as the internet was down. They also requested that materials be housed in one place. To address this need, the National Child Traumatic Stress Network created an app, "Help Kids Cope." The app includes ten different disasters/extreme weather events (earthquakes, extreme heat, landslides, windstorms, winter storms, floods, hurricanes, tornadoes, tsunamis, and wildfires). For each disaster type, there are tips for how to explain each type of event to children of different developmental levels, how to prepare for each event, how to respond in different conditions (sheltering-in-place, evacuating, or immediately after the danger ends), how caregivers can care for themselves, and how to heal in the long-term. Audios from parents providing practical advice are also included. The presentation will highlight different features of the app as well as dissemination strategies you can use in your community to make sure that all families are equipped to protect their families. We will also discuss next steps for expanding the app.

TF-CBT Triangle of Life
(Clin Res, CSA, Child/Adol, I, Global)

Mannarino, Anthony, PhD; Cohen, Judith, MD
1Allegheny General Hospital/Drexel University College of Medicine, Pittsburgh, Pennsylvania, USA
2Allegheny General Hospital, Pittsburgh, Pennsylvania, USA

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) is a well-established evidence-based treatment for child and adolescent trauma. Community therapists sometimes struggle to implement the TF-CBT cognitive processing component, in which they help children and caregivers understand the connections among maladaptive thoughts, feelings and behaviors. In order to facilitate therapists in implementing this component, a collaboration between the TF-CBT treatment developers,
Symposium
Friday, November 11
2:45 PM to 4:00 PM
Dallas D1

Trauma, PTSD, and Women's Reproductive Health
(Bio Med, Gender, Adult, M, Industrialized)

Nillni, Yael, PhD; Rasmusson, Ann, MD
National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA

Trauma exposure and PTSD can compromise a woman’s wellbeing across her reproductive life cycle. The current symposium will present new findings highlighting the complex interaction of trauma and/or PTSD with neurobiological, psychological, and psychosocial functioning in women during key reproductive windows, specifically the menstrual cycle and perinatal period. In the first paper, ovarian hormones and their neurosteroid derivatives are compared among trauma-exposed women with and without PTSD across the menstrual cycle. In the second paper, trauma exposure is evaluated for its influence on the relationship between ovarian hormones and psychological symptoms across the menstrual cycle among women with mensturally related mood disorders. The third paper focuses on the role of peritraumatic response following a normal childbirth in the development of PTSD in order to clarify trajectories of illness and adaptation in the postpartum period. In the final paper, postpartum PTSD is examined over time for its unique influence on maternal-infant bonding above and beyond depression. Our discussant, Ann Rasmusson, M.D. is an expert on the neurobiology of PTSD, particularly as it relates to women, and will integrate findings to highlight directions for research and intervention to enhance reproductive mental health and related outcomes in trauma-exposed populations.

Posttraumatic Stress Symptoms Induced by Childbirth: Real or Illusionary?
(Clin Res, Clin Res-Gender, Adult, M, Global)

Dekel, Sharon, PhD; Pitman, Roger, MD
1Massachusetts General Hospital, Harvard Medical School, Charlestown, Massachusetts, USA
2Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts, USA

Childbirth is a significant life event entailing positive but sometimes also negative outcomes. Accumulating data suggests that new mothers, including women after a full-term pregnancy with a healthy outcome, may exhibit a posttraumatic stress response induced by the childbirth experience and even suffer from PP-PTSD symptoms. Yet, estimates of PP-PTSD incidence are too wide to be useful, and previous studies have inadequately assessed the sources of trauma, making it even more difficult to determine its prevalence. Moreover, the immediate factors following childbirth that may put women at risk to develop PP-PTSD are not fully understood. PP-PTSD may impose a significant threat to both the mother and the infant’s health. Hence it is a problem deserving of clinical and research attention. The objective of this study is to examine the incidences of and risk factors for PP-PTSD. To this end, pregnant women are being followed prospectively and data concerning their childbirth experience, mental health, and maternal bonding is being collected at 28 wk and 1-2 and 45 days PP. The study can provide insight into the phenomenon of postpartum psychopathology and trajectories of illness as well as the mechanisms implicated in resilience and adaption. If the findings are promising, they may call for implementing relevant assessments and screening for postpartum women.

PTSD and Depression across the First Postpartum Year and Their Additive Influences on Maternal-Infant Bonding
(Prevent, Depr-Fam/Int-Global-Gender, Lifespan, M, E & S Africa)

Choi, Karmel, MA; Roos, Annerine, PhD; Sikkema, Kathleen, PhD; Vythilingum, Bavanisha, MD; Stein, Dan, BSc(Med), MBChB, FRCP, FRSSAf, PhD, DPhil

PTSD and Depression across the First Postpartum Year and Their Additive Influences on Maternal-Infant Bonding
(Prevent, Depr-Fam/Int-Global-Gender, Lifespan, M, E & S Africa)
Post-traumatic stress disorder (PTSD) in the postpartum period can negatively impact the maternal-infant relationship. Whether this occurs via PTSD’s comorbidity with depression, or independently, requires further investigation in high-risk populations. South African mothers (N=150) were recruited in antenatal care and followed through the postpartum year. Postpartum depression and PTSD were each measured at 6 weeks and 6 months, while maternal-infant bonding was assessed at 1 year. Structural path modeling was conducted to simultaneously explore influences of postpartum depression and PTSD on maternal-infant bonding. As expected, depression at 6 weeks predicted 6-month depression (B=.44, p<.001), and PTSD at 6 weeks predicted 6-month PTSD (B=.58, p<.001). However, PTSD at 6 weeks also predicted 6-month depression (B=.22, p=.019) above and beyond earlier depression, while depression at 6 weeks did not predict 6-month PTSD adjusted for earlier PTSD. Furthermore, depression and PTSD at 6 months each predicted bonding difficulties at 1 year (B=.40, p<.001/ B=.20, p=.026), indicating influences of PTSD above and beyond depression. These findings suggest that postpartum depression and PTSD show stability over time and additively predict later maternal-infant bonding, and should be jointly addressed to improve maternal and child outcomes in high-trauma settings such as South Africa.

Differences in Ovarian Hormone Steroids across the Menstrual Cycle among Women with and without PTSD

Nillni, Yael, PhD1; Irvine, John, PhD2; Webb, Andrea, PhD2; Resick, Patricia, PhD, ABPP3; Orr, Scott, PhD4; Rasmusson, Ann, MD4; Pineles, Suzanne, PhD4

1National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA
2Charles Stark Draper Laboratories, Inc., Cambridge, Massachusetts, USA
3Duke University Medical Center, Durham, North Carolina, USA
4Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA

Premenopausal women experience a great degree of hormonal flux across the month. Allopregnanolone is a neuroactive metabolite of progesterone that positively modulates the effect of GABA and has anxiolytic effects. PTSD is associated with dysregulation of GABA, and women with PTSD have lower levels of ALLO. The aim of the present study was to examine whether progesterone and its steroid derivatives (e.g., alprenolone, progesterone, and estradiol), which modulate the effect of GABA, may contribute to PTSD symptoms. It was hypothesized that women with PTSD would have lower levels of ALLO and higher levels of progesterone than controls. The results of this study support the hypothesis that women with PTSD have lower levels of ALLO and higher levels of progesterone than controls, which may contribute to PTSD symptoms.
allopregnanolone) differed among trauma-exposed women with and without PTSD across the menstrual cycle. Trauma-exposed women provided blood samples during the early follicular phase, when progesterone levels are low, and the midluteal phase, when progesterone levels are elevated. A significant PTSD × cycle phase interaction was found for allopregnanolone (F(2,306)=3.75, p <.05). Further exploration revealed that although women with and without PTSD experienced similar levels of progesterone in both cycle phases, women with PTSD had lower levels of allopregnanolone, in the mid-luteal phase as compared to the trauma controls. Furthermore, women with PTSD also had higher levels of 5alphaDHP (the immediate precursor to allopregnanolone) during the midluteal phase. These results suggests a potential block in the conversion of 5alphaDHP to allopregnanolone, and reveals a potential neurobiological mechanism differentiating women with and without PTSD.

Symposium
Friday, November 11
2:45 PM to 4:00 PM
Dallas D3

Refining our Understanding of the Associations among Trauma Exposure, Posttraumatic Symptoms, and Risks for Youth Justice Involvement
(Assess Dx, Aggress-CPA-CSA-Health, Child/Adol, M, Industrialized)

Kerig, Patricia, PhD¹; Ford, Julian, PhD²
¹University of Utah, Salt Lake City, Utah, USA
²University of Connecticut Health Center, Farmington, Connecticut, USA

Among the over 60,000 youth held in detention centers in the US each day, it is well-established that the majority have been exposed to trauma. However our attempts to better serve these youth have been limited by a paucity of research devoted to pinpointing the key variables that account for the association between trauma and justice involvement and which thus might provide effective targets for intervention. The present paper brings together four independent papers that make original contributions to these efforts. The first examines trajectories of sexual revictimization across development and how these are related to specific symptoms of posttraumatic stress. The second examines the association between non-suicidal self-injuring behaviors and posttraumatic symptoms of overmodulation vs. undermodulation. The third tests hypotheses regarding the specificity by which posttraumatic symptoms are linked to personality traits that interfere with healthy relationship functioning. The fourth investigates the value-added of including indices of traumatic stress exposure and posttraumatic symptoms in the assessment of risk and recidivism in a sample of justice-involved youth. Taken together, these papers shed new light on the underlying mechanisms that might inform interventions for trauma-exposed at-risk youth.

Integrating Traumatic Stress Screening and Risk Assessments of Justice-involved Youth: Enhancing Identification of Delinquency Risk
(Assess Dx, Aggress-Comm/Vio, Child/Adol, M, N/A)

Cruise, Keith, PhD¹; Holloway, Evan, MA²; Ford, Julian, PhD²; Grasso, Damion, PhD³
¹Fordham University, New York, New York, USA
²Fordham University, Bronx, New York, USA
³University of Connecticut Health Center, Farmington, Connecticut, USA

Advances have been made in the use of risk assessment tools to inform case management with justice-involved youth. However, common risk assessment tools utilized with justice-involved youth provide limited coverage of prior trauma exposures, reactions, and symptoms (Cruise, 2013). This is problematic given high rates of polyvictimization (Ford et al., 2010), PTSD (Abram et al., 2004) and research linking both to aggression, substance use, and delinquent behaviors (Ford et al., 2012). This presentation reviews screening and assessment data from over 300 consecutive admissions to two juvenile detention centers over a 4-month time period and tests the incremental validity of adding traumatic stress symptom screening (Structured Trauma-related Symptoms and Experiences Screen; STRESS) to results from a structured risk assessment (Structured Assessment of Violence Risk in Youth) to predict lifetime and past 12-month delinquent behaviors (official arrest records). Replicating the analytic strategy of Becker and Kerig (2011), the results from this study will inform future clinical applications,
case management decisions, and research directions.

**The Role of Posttraumatic Stress Symptoms in the Sexual Revictimization Trajectories of Justice-Involved Youth**  
(Clin Res, CSA-Gender, Child/Adol, M, Industrialized)

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

Childhood sexual abuse (SA) is associated with a host of negative outcomes across the lifespan, including sexual revictimization (SR). Many theories of SR suggest that posttraumatic stress symptoms (PTSS) contribute to survivors’ revictimization experiences. However, few studies have examined SR in samples of adolescents, especially those at high risk. The current study examined SR growth trajectories in a sample of 381 detained youth (26% female; 51% ethnic minority). Youth reported the number of SA experiences they endured during ages birth-5, 6-11, and 12 and older, in addition to completing a measure of PTSS. On average, girls (M=7.26, SD=19.49) reported experiencing more SA experiences across all three age epochs than boys (M=6.61, SD=5.07), t=5.61, p<.001. Results of growth models performed in Mplus suggested that boys reported very little variability in SA across the three age epochs. In contrast, girls demonstrated an increase in SR over time, slope = .98, p = .01. Results also showed that PTSS positively predicted girls’ SA trajectories and that Cluster D symptoms (negative alterations in cognitions in mood) accounted for these effects. These results suggest that detained girls are likely to experience SA and SR and that posttraumatic cognitions and emotions comprise a potential intervention target.

**Is Non-Suicidal Self-Injury Related to PTSD Symptoms of Overmodulation or Undermodulation in Traumatized Justice-Involved Adolescents?**  
(Clin Res, Affect/Int-Aggress-Dev/Int, Child/Adol, M, Industrialized)

Modrowski, Crosby, MS, PhD Student; Chaplo, Shannon, Doctoral Student; Kerig, Patricia, PhD; Mozley, Michaela, BS  
University of Utah, Salt Lake City, Utah, USA

Recent models of PTSD have focused on the central role of emotion dysregulation (ED) in PTSD phenomenology. In particular, Frewen & Lanius (2006) have distinguished between PTSD symptoms that are associated with ED that takes the form of overmodulation (e.g., emotional numbing/dissociation) versus undermodulation (e.g., intrusion/hyperarousal). In addition, previous research has demonstrated that ED is related to specific negative outcomes among traumatized youth, such as non-suicidal self-injury (NSSI; Weinrich & Nock, 2008; Chaplo et al., 2015), especially for youth who have experienced interpersonal trauma (Smith et al., 2014). However, no research has examined whether PTSD symptoms related to emotional overmodulation versus undermodulation differentially account for the association between interpersonal trauma and NSSI. To investigate this question, data were obtained from a sample of 331 detained youth who completed self-report measures of trauma exposure, PTSD symptoms of overmodulation and undermodulation, and NSSI. Structural equation models demonstrated that symptoms of overmodulation were linked to NSSI. Additionally, overmodulation statistically mediated the relation between both noninterpersonal and interpersonal trauma and NSSI. Results highlight the role of individual patterns of ED in the development of specific negative outcomes, such as NSSI, for traumatized youth.
Increasing Specificity in Our Understanding of the Associations among Trauma Exposure, Posttraumatic Stress Reactions, and Risk Factors for Boys and Girls Involved in the Justice System  
(Assess Dx, CPA-CSA-Health-Gender, Child/Adol, M, Industrialized)

Kerig, Patricia, PhD; Chaplo, Shannon, Doctoral Student  
University of Utah, Salt Lake City, Utah, USA

A wealth of research confirms that rates of trauma exposure (TE) are disproportionately high among justice system-involved youth, especially girls. Given recent dramatic increases in girls’ arrest rates, a pressing question is whether theories regarding the mechanisms linking childhood TE and adolescent delinquency are gender-specific; e.g., studies involving boys have highlighted the presence of callous-unemotional (CU) traits whereas studies of girls have implicated borderline personality (BP) traits as imparting risk in the aftermath of TE. The present study tested the hypothesis that different trauma-related mechanisms account for these two risk factors; specifically, that posttraumatic numbing accounts for the link between TE and CU whereas dissociation accounts for the link between TE and BP. Utilizing validated self-report measures gathered from a sample of 820 detained youth (Mage=16.06; 26% girls), structural equation modeling demonstrated that the model was a good fit for both boys and girls, χ²(2)=30.27 p=.00, CFI=.96. Emotional numbing fully mediated the association between TE and CU whereas dissociation fully mediated the association between TE and BP. These results suggest the importance of increasing specificity in our understanding of the posttraumatic reactions that are potential targets of interventions for justice-involved youth.

Symposium  
Friday, November 11  
2:45 PM to 4:00 PM  
San Antonio Ballroom A

Disseminating Prolonged Exposure and Cognitive Processing Therapy into Community Settings  
(Train/Ed/Dis, Clinical Practice-Commun-Tech-Train/Ed/Dis, Prof, I, Industrialized)

Charney, Meredith, PhD¹; Riggs, David, PhD²  
¹Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA  
²Center for Deployment Psychology, Bethesda, Maryland, USA

This symposium presents findings of disseminating two gold standard PTSD treatments into community settings: Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT). The four clinical education and research centers employed innovative training efforts integrating the use of technology and traditional dissemination methods. These efforts include in person integration into community clinics (The CPT Learning Collaborative at Duke University Medical Center), a hybrid model of using technology for distal combined with in person dissemination (The Home Base Program at Massachusetts General Hospital and Emory’s Veterans Program at Emory University), and the use of technology for remote training and consultation (The National Center for PTSD). Discussion of benefits and limitations of each model will be discussed. Dr. David Riggs of the Center for Deployment Psychology (CDP) will be our discussant. The CDP disseminates PE and CPT nationally through in person trainings as well as a variety of interactive web-based training programs.

Using Technology to Support Sustained Implementation of Evidence Based Treatments through Consultation and Education for Veterans in Community Settings  
(Train/Ed/Dis, Train/Ed/Dis-Mil/Vets, Prof, I, Industrialized)

Norman, Sonya, PhD¹; McKee, Todd, MDIv²; Hamblen, Jessica, PhD³
Posttraumatic stress disorder (PTSD) is the most commonly occurring mental health problem among Veterans. 30-56% of Veterans receive care outside of the VA. These statistics suggest that many non-VA mental healthcare professionals are likely to encounter Veterans with PTSD in their practice. While trainings in evidence-based therapies for PTSD are increasingly available to providers treating Veterans in the community, research suggests that without ongoing support, sustained implementation with fidelity to the treatment models is unlikely. We will describe the implementation and dissemination of a PTSD consultation program which launched to non-VA providers in 2015. Senior clinicians, administrators, and researchers provide consultation on PTSD-related questions over teleconference, email, and telephone. The program offers web-based and virtual interactive courses with free CEU’s on topics related to PTSD treatment. 212 providers from the community accessed the program in its first year. Of those who identified their profession, providers were primarily psychologists (26%) and social workers (23%) and asked questions primarily about therapy (27%), resources (33%), and assessment (28%). Lessons learned about how to develop the Consultation Program and spread the word to providers across the U.S. that this resource is available will be discussed. Updated data will be presented.

Piloting a Two-Level Training and Consultation Model of Prolonged Exposure Therapy for PTSD
(Train/Ed/Dis, Affect/Int-Commun, Adult, I, N/A)

Zwiebach, Liza, PhD1; Rauch, Sheila, PhD, ABPP2; Rothbaum, Barbara, PhD, ABPP1
1Emory University School of Medicine, Atlanta, Georgia, USA
2Emory University School of Medicine/Atlanta Veteran's Administration, Atlanta, Georgia, USA

We aim to disseminate Prolonged Exposure Therapy (PE) among community providers using a “hybrid” model of consultation. The model builds on an existing framework, the Star Behavioral Health Provider initiative, which offers three stepped levels of training: Tier 1 (n=790) covers military cultural competence; Tier 2 (n=302) focuses on assessment of specific concerns often associated with military service; and Tier 3 (n=136) provides instruction in an evidence-based treatment, specifically PE. To this we add a “Tier 4” (n=7), in which providers who have completed all three tiers subsequently receive a 6-month period of consultation on PE cases. Consultation occurs across two levels: providers receive “local” consultation with a PE-proficient clinician from their own setting, as well as 1-hour weekly consultation calls with Emory University PE experts. Local clinicians are responsible for reviewing and rating providers’ session recordings and giving feedback, and they simultaneously acquire experience as PE consultants and develop these supervisory skills with Emory’s PE experts, in separate 1-hour weekly calls. We collect data at patient level in the form of PTSD Checklist (PCL) scores across course of treatment and number of sessions completed, and at provider level with treatment fidelity ratings and a pre/post knowledge assessment of PE concepts.

Evidence-Based Therapy Training for Community Providers Treating Military Service Members
(Train/Ed/Dis, Clinical Practice-Commun-Train/Ed/Dis, Prof, I, Industrialized)

Charney, Meredith, PhD1; Baier, Allison, BS2; Chow, Louis, PhD1; Clair-Hayes, Kathy, LICSW2; Morrison, Emma, MA2; Simon, Naomi, MD1
1Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
2Massachusetts General Hospital, Boston, Massachusetts, USA

As many as 40% of post-9/11 veterans seek medical care outside the VA. Reports suggest a paucity of community providers trained in evidence based treatments (EBTs) for PTSD. We developed a two-arm training model to disseminate two EBTs for PTSD: Prolonged Exposure Therapy (PE) and Cognitive Processing Therapy (CPT). Trainees attended a 2-day PE or CPT workshop and a subset of trainees participated in 6 months of consultation including weekly calls and session recordings. Trainees completed 3 and 6 month follow up surveys. The study is ongoing; to date we have provided one PE workshop (n=42) and consultation (N=8), and one...
CPT workshop (n=40) and consultation (N=10). Knowledge of PTSD and PE (t (39) = 10.23, p < .001) and CPT (t(34)= 8.9620, p < .001) treatment components increased significantly from pre training to post training and the majority rated themselves as satisfied with the overall PE (98%) or CPT (100%) training experience. Early data suggests greater implementation of PE for those in consultation (39%) than those not in consultation (25%). CPT data is currently being analyzed and further data will be presented. Early findings suggest that consultation following trainings in EBTs is important to subsequent implementation in practice. Additional attention to developing practical and effective training models is needed.

The Cognitive Processing Therapy Learning Collaborative: Intensive Training of Community Clinicians in North Carolina
(Train/Ed/Dis, Commun-Tech, Prof, I, Industrialized)

LoSavio, Stefanie, PhD; Dillon, Kirsten, PhD; Resick, Patricia, PhD, ABPP
Duke University Medical Center, Durham, North Carolina, USA

The Cognitive Processing Therapy (CPT) Learning Collaborative is an intensive training initiative aimed at certifying 60 clinicians in the state of North Carolina in CPT to make this treatment more readily available in the community, especially for current and former service members and their families. Following an application process, 60 clinicians within 19 agencies were invited to participate in the collaborative. The project has also incorporated senior leaders from each agency who have helped to build a sustainable CPT practice and support the certification of clinicians. Over the course of eight months, community clinicians and their senior leaders attended three in-person, multi-day trainings focused on CPT delivery and sustainability, as well as military culture and an optional family component. In addition to weekly clinical consultation calls, clinicians and senior leaders have each also participated in monthly affinity calls for across-group training opportunities utilizing interactive technologies. Clinicians have also uploaded session audio recordings and patient worksheets to a secure server for consultants to evaluate fidelity to the protocol. Training successes and challenges of this program structure will be discussed with recommendations for future dissemination efforts.

Symposium
Friday, November 11
2:45 PM to 4:00 PM
San Antonio Ballroom B

Core Belief Disruptions Contributing to Posttraumatic Growth in Japan, Australia, and Puerto Rico
(CulDiv, Cog/Int-Death-Nat/Dis-Grief, Adult, M, Global)

Tedeschi, Richard, PhD
UNC Charlotte, Charlotte, North Carolina, USA

Core belief disruption has been a central consideration in the conceptual understanding of the process of posttraumatic growth. This is based on the work of Janoff-Bulman (1992) and others who described an assumptive world, i.e., a cognitive structure of fundamental beliefs about the self, the world and the future. The disruption of this structure plays a major role in the development of posttraumatic stress. It has also been hypothesized by Tedeschi and Calhoun (2004) that this core belief disruption is central to the development of new belief systems that are experienced as posttraumatic growth (PTG). This symposium presents data from three different cultures where traumatic events of various kinds were studied in order to investigate the connection between core belief disruption and PTG, and to determine if other variables play a role in this relationship. Japanese earthquake and tsunami survivors, Australian bereaved parents, and Puerto Rican trauma survivors indicated that core belief disruption was a central component to their experience of trauma and PTG, while other variables also played a role in the relationship: traumatic event pile-up and event related factors, and religious thinking. An expanded conceptual model of the PTG process is considered based on these results.
Core Belief Disruption and Posttraumatic Growth Following the Great East Japan Earthquake
(CulDiv, Cog/Int-Cul Div-Death-Nat/Dis, Adult, M, Industrialized)

Taku, Kanako, PhD
Oakland University, Rochester, Michigan, USA

The Great East Japan Earthquake on March 11, 2011 triggered a broad range of traumatic experiences to many Japanese people. In order to further understand the posttraumatic stress symptoms (PTSS) and posttraumatic growth (PTG), studies have focused on the experience of the disruption of core beliefs. We hypothesized that the subsequent additional stressful life experiences might force people to challenge their core beliefs. In this study, earthquake survivors who were in the Tohoku area (n = 76) completed the Impact of Event Scale Revised, PTG Inventory, and Core Beliefs Inventory, and reported what other stressful life events they experienced after the 3.11 earthquake. Hypothetical relationship between core beliefs disruption, PTSS and PTG were supported. In addition, a total number of additional events since the earthquake correlated with the degree of disrupted core beliefs. As the studies of psycho-social impact of cumulative traumas have indicated, negative consequences are often expected when experiencing multiple highly stressful life events. The current study; however, suggested that multiple events may trigger the processes that facilitate PTG through core beliefs examination. It may be thus important to consider outside stressors that would influence PTSS and PTG after experiencing a major triggering event.

Core Belief Disruption, Grief, Traumatic Stress and Posttraumatic Growth in Women who Have Experienced Pregnancy Loss
(Clin Res, Clinical Practice-Cog/Int-Death-Gender, Adult, M, Industrialized)

Shakespeare-Finch, Jane, PhD
Queensland University of Technology, Brisbane, Queensland, Australia

The loss of a baby through miscarriage or stillbirth is devastating for many who experience it. An exclusive focus on negative outcomes paints an incomplete picture of people’s responses to highly challenging and traumatic events. Increasingly, bereavement research has attended to the role of core belief disruption and the potential for bereavement to lead to posttraumatic growth (PTG). Women who had a lost a baby through miscarriage (n = 174) or stillbirth (n = 154) completed a questionnaire that assessed pregnancy loss factors such as gestational age, personhood, and the presence of other children, and measures of core belief disruption, perinatal grief, posttraumatic stress symptoms, and posttraumatic growth. Results revealed that in addition to pregnancy loss factors, core belief disruption added significant variance in measuring all outcome variables and that perinatal grief predicted both posttraumatic stress symptoms and posttraumatic growth. The research supports the proposition that pregnancy loss does not only result in grief but is also considered a traumatic event by many. Results have implications for therapeutic interventions for example, practitioners may assist a person to see themselves as more than a bereaved parent, and perhaps see their own personal change as a legacy of their baby’s life.

Religious Cognition and Experience Leads to Rumination and Core Belief Disruption in Puerto Rican Trauma Survivors Reporting Posttraumatic Growth
(CulDiv, Cog/Int, Adult, M, Global)

Orejuela, Ana, MA
UNC Charlotte, Charlotte, North Carolina, USA

This study examined how centrality of religiosity and daily spiritual experiences impact posttraumatic growth (PTG), disruption to core beliefs, and deliberate rumination. A community sample of 138 participants in Puerto Rico who had experienced a traumatic event within the past 12 months completed an online survey. They focused on that event when completing the Posttraumatic Growth Inventory (PTGI), Core Beliefs Inventory (CBI), and Event-Related Rumination Inventory (ERRI). Participants also completed the Centrality of Religiosity Scale (CRS) and Daily Spiritual Experiences Scale (DSES). Results showed that although neither CRS nor DSES scores predicted PTG, they did predict both disruption to core beliefs (CRS: b = .34, p<.001; DSES: b = .17, p < .001) and deliberate rumination (CRS: b = .29, p<.001; DSES: b = .15, p<.001). In addition, only the intellect subscale of the CRS predicted both CBI (b = 2.37, p<.001) and deliberate
rumination (b = 1.58, p<.05). PTGI was correlated with intrusive rumination (.38, p<.001), deliberate rumination (.52, p<.001) and CBI (.497, p<.001). The intellect domain measures the frequency of thinking about religious issues and updating of their contents. This process may be part of the cognitive work that is associated with the meaning-making process of core belief disruption and deliberate rumination, which may then facilitate growth.

Panel Presentation
Friday, November 11
2:45 PM to 4:00 PM
Dallas A1

Handling Traumatic Imagery: The Need for Exposure Mitigation Strategies in Journalism and the Wider Consequences for Social Media Consumption
(Journalism and Trauma, Pub Health-Tech-Terror-Train/Ed/Dis, Lifespan, I, Global)

Rees, Gavin, MA1; Cohen Silver, Roxane, PhD2; Dubberley, Sam, MA, eMBA1; Wardle, Claire, PhD2; Feinstein, Anthony, PhD, MD3; Brewin, Chris, PhD4
1Dart Centre Europe, London, United Kingdom
2University of California, Irvine, Irvine, California, USA
3Eyewitness Media Hub, Istanbul, Turkey
4Columbia University, New York, New York, USA
5University of Toronto, Toronto, Ontario, Canada
6University College London, London, United Kingdom

DSM-5 recognised that repeated job-related immersive viewing of traumatic imagery may qualify as a traumatic event. Recently international new organisations have become increasingly concerned by the occupational health implications of an ever-growing torrent of disturbing UGC content flooding into newsrooms and putting journalists at risk for PTSD (Feinstein et al. 2014, Dubberley et al. 2016). But the complex ways that new media technologies require journalists to work with and process traumatic imagery remain relatively under-conceptualised. For example, journalists may be in dialogue with perpetrators, required to memorise images for verification purposes, and experience cognitive dissonance due to indirect exposure. This panel will examine the unmet research and policy implications of these challenges through a multidisciplinary lens, combining journalistic (Dubberley), ethnographic (Rees) and psychological (Cohen Silver) perspectives. In particular, it will discuss the need for research into new mitigation strategies (such as alterations to the viewing environment, reappraisal of political contexts, use of distraction, etc.). While journalists are at the frontline of UGC exposure, the public are also exposed. This panel will also discuss whether the promotion of safer viewing practices should be a focus for broader public health dissemination in the age of social media.

Panel Presentation
Friday, November 11
2:45 PM to 4:00 PM
Dallas A3

Family Immigration Detention in the U.S. : the New and Shameful American Internment Camps
(Social, Fam/Int-Rights-Refugee-Gender, Lifespan, M, Industrialized)

Keller, Allen, MD1; Joscelyne, Amy, PhD1; Winchester, Amanda, MPH1; Ryan, Johnathan, JD2
1New York University School of Medicine, New York, New York, USA
2RAICES, San Antonio, Texas, USA

The objective of this session is to educate participants about Family Immigration Detention in the U.S.-its prevalence and harmful health consequences—both on the individual family members and the family unit as a whole. In particular, we will focus on the detention of Central American immigrants—notably from El Salvador, Guatemala and Honduras. In recent years, tens of thousands of woman and children continue to present at the Southwestern U.S. borders in unprecedented numbers having suffered horrific trauma and human rights abuses. In this session, we will present original research conducted by presenters describing the prevalence of trauma endured by this population, as well as the health consequences of family detention—particularly in private for profit detention facilities in Texas. We will examine challenges in advocating for this highly vulnerable population and ensuring fairness in a system that is
fundamentally unjust.

Case Study Presentation
Friday, November 11
2:45 PM to 4:00 PM
Dallas D2

Through the Door: Complex Symptom Presentations of a New Generation of Veterans
(Practice, Chronic-Complex-Mil/Vets, Adult, M, Global)

Zingman, Maggie, PhD
Lockheed Martin, Lawton, Oklahoma, USA

The current generation of combat-exposed service members (SM) (1986-2012-Gulf War, Bosnia, Iraq and Afghanistan) are leaving Active duty in increasing numbers. Of more than 2.5 million deployed during these years (Department of Defense), an estimated 45-60% developed “invisible injuries” of post-traumatic stress disorder (PTSD) and/or traumatic brain injury (TBI) (Tanielian, T., and Jaycox, L.H. (2008). Case studies of a Staff Sergeant diagnosed with Severe TBI/Complex PTSD, Sergeant 1st Class, with severe child abuse history, diagnosed with Complex PTSD; Chief Warrant Officer 4, with 15 of his 26 years as Special Forces are presented. Their varied combat, family of origin and post combat experiences are addressed through a two-tier approach of 1) Identification of generalizable theories on the etiologic base of trauma responses (family dynamics, disclosure experiences, ((Brewin et al., 2000; Ozer et al. 2003). Zingman, 2003;) that contribute to their complex combat stress response 2) Moderating factors specific to this population; a) being a good soldier b) rules of engagement c) deployment as dissociation d) post deployment environments e) DoD initial mandated protocol for diagnosis, treatment, at times denial of PTSD. We thank these men and women for their service through the most comprehensive treatment we can design.

Oral Paper Presentations
Friday, November 11
2:45 PM to 4:00 PM
Houston Ballroom B

Symptomology - Classification Two Paper Session

Mediation Effect of Combat Exposure on Post-deployment Physical Symptoms through Generalized Anxiety, Panic Disorder, Depression, and Posttraumatic Stress Disorder in Canadian Armed Forces Members
(Pub Health, Anx-Depr-Health-Mil/Vets, Adult, M, Industrialized)

Richer, Isabelle, PhD1; Born, Jennifer, MSc2; Zamorski, Mark, MD2
1 Defence Research and Development Canada, Ottawa, Ontario, Canada
2 Department of National Defence, Ottawa, Ontario, Canada

Post-deployment physical symptoms (PS) are common among military personnel. Evidence shows a link between combat exposure and health; however, physical injury while deployed accounts for a small portion of reported physical symptoms. Studies suggest that mental health problems explain in part the relationship between combat exposure and PS. This study sought to look at the specific indirect association of PS and combat exposure through PTSD, depression, anxiety syndrome, and panic disorder. Participants include 16,193 Canadian Armed Forces (CAF) members who completed a post-deployment screening after return from deployment in support of the mission in Afghanistan. PS and mental health problems were measured with the Patient Health Questionnaire. A path analysis with multiple parallel mediators was conducted using maximum likelihood estimation and bias-corrected bootstrap confidence intervals. The significance of the indirect effects was tested using bootstrapping to compute the standard errors. The indirect effects of anxiety syndrome, panic disorder, depression, and PTSD were found to be significant. Results show that a significant portion of the association between combat exposure and PS was accounted for by mental health disorders. Findings have implications
for post-deployment screening and interventions with CAF members presenting PS without apparent physical cause.

Latent Class and Transition Analysis of PTSD Symptoms among a Sample of National Guard Soldiers  
(Pub Health, Mil/Vets, Adult, M, Industrialized)  
Bohnert, Kipling, PhD; Sripada, Rebecca, PhD; Ganoczy, Dara, MPH; Valenstein, Marcia, MD  
1VA Ann Arbor Health Care System/University of Michigan Medical School, Ann Arbor, Michigan, USA  
2University of Michigan/Department of Veterans Affairs, Ann Arbor, Michigan, USA

Little is known about the latent structure of PTSD symptoms among National Guard soldiers. Moreover, few prior studies have examined the extent to which latent classes of PTSD symptoms may change over time after returning from deployment. Therefore, we conducted latent class analysis (LCA) and latent transition analysis (LTA) of PTSD symptoms among a cohort of National Guard soldiers (n=886). PTSD symptoms were assessed via self-reported surveys at 6 and 12 months after returning from deployments in Afghanistan and Iraq. Based on fit statistics, parsimony, and interpretability, the best fitting model at both assessments was the 4-class model, comprising an asymptomatic class (6-month=52.9%; 12-month=53.9%), a mild symptom class with elevated arousal symptoms (6-month=21.7%; 12-month=18.8%), a moderate symptom class (6-month=15.5%; 12-month=15.8%), and a severe symptom class (6-month=9.9%; 12-month=11.5%). Based on LTA, stability of class membership at the two assessments was 0.797 for the asymptomatic class, 0.453 for the mild class, 0.560 for the moderate class, and 0.580 for the severe class. These findings help to better understand the composition and change among subgroups of returning National Guard soldiers with respect to their PTSD symptoms.

The Psychosocial Costs of Comorbidity: PTSD and Chronic Conditions among Iraq and Afghanistan Veterans  
(Pub Health, Health-Illness-Mil/Vets, Adult, I, Industrialized)  
Lee, Sharon, MA PhD Student; Park, Crystal, PhD; Hoff, Rani, PhD MPH  
1University of Connecticut, Storrs, Connecticut, USA  
2Yale University School of Medicine, National Center for PTSD, West Haven, Connecticut, USA

Previous research has found that PTSD predicts poorer physical health and more physical illnesses among veterans. However, comparatively less is known about the psychosocial functioning of veterans with both PTSD and a physical health condition. The present study examined differences in psychosocial functioning between those with comorbid PTSD and at least one chronic medical condition (e.g., diabetes), and those with either or neither condition. The sample comprised 528 Iraq and Afghanistan veterans (68.4% male; age: M=34.98, SD=8.85) who completed assessments. Four groups were compared on psychosocial outcomes (mental health functioning, perceived stress, social support, meaning in life, perceived posttraumatic growth): PTSD, Chronic Condition, Comorbid, and Control. Over half of the sample (57.6%) was in the Comorbid group, having both PTSD and chronic conditions. Results from Kruskal-Wallis tests with Bonferroni correction showed that there were significant differences between groups. Specifically, 1) the Comorbid group consistently had the worst outcomes, 2) the PTSD group consistently had worse outcomes than the Chronic Condition group, and 3) there were no differences between the Control and Chronic Condition groups. These findings suggest that the intersection of physical health problems and trauma-related mental health problems is a high-need area for interventions.
Different Types of Combat Experiences and Associated Symptoms in OEF and OIF National Guard and Reserve Veterans
(Clin Res, Mil/Vets, Adult, M, Industrialized)

Shea, M. Tracie, PhD\(^1\); Presseau, Candice, MA\(^2\); Finley, Shauna, PhD\(^3\); Reddy, Madhavi, PhD\(^4\); Spofford, Christopher, PhD\(^5\)
\(^1\)Alpert Medical School of Brown University, Providence, Rhode Island, USA
\(^2\)Providence VA Medical Center, Providence, Rhode Island, USA
\(^3\)Department of Veteran Affairs Medical Center, Providence, Rhode Island, USA
\(^4\)The University of Texas Health Science Center at Houston, Houston, Texas, USA

It is well established that exposure to combat is a risk factor for PTSD. The experiences of military personnel serving in combat zones vary widely however, leading to increased attention to the impact of different types of combat trauma. The present study examined the relationships among three conceptually based categories of combat exposure and four PTSD symptom clusters (re-experiencing, avoidance, numbing, and hyperarousal), and symptoms of guilt, depression, and anxiety. Participants were 206 National Guard and Reserve members who had recently returned from deployment to Iraq or Afghanistan. As hypothesized, findings from a multivariate multiple linear regression analysis showed that exposure to personal life threat predicted symptoms of hyperarousal, and exposure to death or severe injury of others predicted symptoms of depression. Hypotheses that personal life threat would predict anxiety symptoms, exposure to death or injury of others would predict numbing, and having killed would predict guilt were not supported. These findings highlight the importance of more specific examinations of types of traumatic experiences and resulting symptoms to inform optimal treatment approaches for trauma-related symptoms.

Oral Paper Presentations
Friday, November 11
2:45 PM to 4:00 PM
Houston Ballroom C

Sexual Assault/Military Assault Paper Session

Effects of Sexual Victimization History, Sexual Attitudes, and Psychopathology on Women’s Responses to Increasingly Coercive Sexual Social Situations
(Prevent, Rape-Social-Gender, Adult, M, N/A)

Nason, Erica, PhD\(^1\); Yeater, Elizabeth, PhD\(^2\); Bottera, Angeline, BA\(^3\)
\(^1\)University of Texas Health Science Center at San Antonio, Albuquerque, New Mexico, USA
\(^2\)University of New Mexico, Albuquerque, New Mexico, USA
\(^3\)University of Texas Health Science Center at San Antonio, Fort Hood, Texas, USA

Between 10% and 25% of women report having experienced a completed rape. Previously victimized women are at increased risk for future victimization. Women’s responses to sexually risky situations may be one mechanism underlying the relationship between past and future victimization. This study examined the effectiveness of college women’s responses to vignettes depicting sexually risky social interactions. One hundred undergraduate women viewed and responded to a series of ten videotaped vignettes depicting male actors who made increasingly coercive sexual requests to heterosocial interactions. Participants were videotaped while responding to each of the actors' requests. Participants, experts, and undergraduate men rated the effectiveness of participants’ responses in decreasing risk for victimization. Psychopathology, victimization, and sexual attitudes were not related to ratings of response effectiveness. Participants provided more effective responses to higher levels of coercion than to lower levels of coercion. Additionally, undergraduate men rated participants’ responses as less effective than both experts and participants. These findings have implications for sexual assault prevention programs. For example, providing women with opportunities to practice responses and receive feedback may increase
The Role of PTSD Symptom Clusters in Sexual Functioning in Women with a History of Sexual Assault

(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)

Kelley, Erika, PhD1; Dardis, Christina, PhD2; Gidycz, Christine, PhD3
1VA Palo Alto Health Care System/Stanford University School of Medicine, Palo Alto, California, USA
2National Center for PTSD-Women's Health Science Division, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
3Ohio University, Athens, Ohio, USA

Contemporary models of female sexual function suggest the benefit of psychological interventions to treat dysfunction and hypothesize that psychological factors associated with sexual assault contribute to dysfunction. The purpose of this study was to examine whether posttraumatic stress disorder (PTSD) symptom clusters contributed to difficulties in domains of sexual functioning (i.e., desire, arousal, lubrication, orgasm, and pain) and distress in a sample of 149 young women with a history of sexual assault. Women completed online questionnaires assessing these constructs. Linear regression analyses were conducted, one for each domain of sexual functioning as the dependent variable and PTSD symptom clusters entered as independent variables. Results showed PTSD symptom clusters contributed to the greatest amount of variance in sexual distress and intrusive symptoms were most commonly associated with sexual difficulties overall. Results provide preliminary support for the potential reduction in sexual functioning difficulties with trauma-focused treatment in women with a history of sexual assault. Implications for interdisciplinary approaches include the potential adaptation of innovative technological approaches from sexual medicine (e.g., use of dilator with biofeedback and emotional processing), for women with sexual dysfunction and a history of sexual trauma.

Exploring Provider Gender Preference and Perceptions of Providers in Male and Female Veterans who have Experienced Military Sexual Trauma

(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)

McBain, Sacha, Doctoral Student1; Garneau-Fournier, Jade, BS, MS1; Torres, Tammy, BS, MS2; Turchik, Jessica, PhD3
1Pacific Graduate School of Psychology at Palo Alto University, Palo Alto, California, USA
2Pacific Graduate School of Psychology-Stanford Psy.D. Consortium, Palo Alto, California, USA
3Center for Innovation to Implementation & National Center for PTSD, VA Palo Alto Health Care System/Stanford University, Menlo Park, California, USA

Veterans who have experienced MST may experience MST-specific barriers, including knowledge, gender, and stigma-related barriers. Little research has examined potential provider-related barriers to accessing MST-related care. The current study aimed to: 1) examine provider gender preferences and provider gender mismatch rates among veterans who screened positive for MST; and 2) explore how not receiving a provider of one’s gender preference is related to perception of providers when communicating about MST. Analyses were conducted with a national sample of veterans (n = 1,908) enrolled in VHA care who had screened positive for MST. Chi square analyses revealed that both men (n = 618) and women (n = 1,290) had significant VA provider gender preferences (p’s < .001). Factorial MANCOVA analyses revealed provider preference mismatch was significantly related to greater perceived provider barriers in both male and female veterans (p’s < .001), and lower perceived provider competence and lower comfort with provider in female veterans (p’s < .001). Results from this study contribute to existing literature on MST-related barriers by providing information about veterans’ experiences and perceptions of provider barriers related to MST. It is hoped that these findings can be used to improve patient-centered MST-care and pave the way for further research.
The Prevalence of Sexual Revictimization: A Meta-Analytic Review
(Social, CSA-Rape-Gender, Lifespan, M, Industrialized)

Wilson, Laura, PhD; Freud, Jennifer, Undergraduate; Fraine, Shawn, Undergraduate; Ellis, Robyn, Undergraduate; Walker, Hannah, Undergraduate

University of Mary Washington, Fredericksburg, Virginia, USA

Revictimization is the term used to describe the phenomenon that survivors of child and/or adolescent sexual abuse are at increased risk for later sexual victimization (Arata, 2002). Although revictimization is a well-established issue that poses a public health concern, prior studies have found prevalence rates ranging from less than 10% (e.g., Nelson et al., 2002) to almost 80% (e.g., Classen et al., 2002). To explore the prevalence of revictimization across the literature and examine the role of potential moderators, we conducted a meta-analysis using PsycINFO and PILOTS. The search terms were "revictimization" OR "retraumatization" OR "repeat victimization" OR "poly-victimization" OR "poly-trauma" OR "multiple trauma." The search yielded 1,415 unique citations, which were reviewed for inclusion using a double-coder approach. This process resulted in 82 articles for inclusion in the analysis. The mean prevalence of revictimization was 48.9% (95% CI [44.6%, 53.2%]), indicating that 48.9% of those who are sexually victimized in childhood or adolescence are subsequently sexually victimized again. The presented results will include analysis of heterogeneity, publication bias, and moderator variables. The findings have significant implications for methodological considerations among researchers, treatment planning by therapists, and recommendations for policy makers.
CONCURRENT SESSION EIGHT

Invited Panel
Friday, November 11
4:15 PM to 5:30 PM
Dallas B/C

ISTSS Treatment Guidelines

Bisson, Jonathan, MD1; Cloitre, Marylene, PhD2; Goldbeck, Lutz, PhD3; Lewis, Catrin, PhD4; Roberts, Neil, DPsych(Clin)5

1Cardiff University School of Medicine, Cardiff, Wales, United Kingdom
2National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
3University Ulm, Department of Child and Adolescent Psychiatry/Psychotherapy, Ulm, Baden-Wuerttemberg, Germany
4Cardiff University, Cardiff, Wales, United Kingdom
5Cardiff and Vale University Health Board, Cardiff, United Kingdom

The ISTSS Guidelines Committee is currently developing updated Treatment Guidelines for PTSD informed by the research evidence base. The Committee includes experts from various professional backgrounds and areas of the world, including members with considerable systematic review and guideline development expertise. The ISTSS membership and key stakeholders are being consulted at all stages of the development process. A consumer (especially PTSD sufferer/ex-PTSD sufferer) perspective is being gathered through a consumer reference group. There is also a practitioner reference group comprising practitioners from different professional backgrounds who are not working in the trauma field. The Committee is liaising closely with the ISTSS Board, which is planning the dissemination of the treatment guidelines. The panel comprises members of the Committee who will provide an overview of the methodology being employed, the progress to date and next steps, before engaging in discussion with those attending.

Symposium
Friday, November 11
4:15 PM to 5:30 PM
Dallas A1

Mental and Physical Health Sequelae of Trauma: Data from General Population, Military and Veteran Cohorts
(Pub Health, Health-Pub Health-Res Meth-Mil/Vets, Lifespan, M, Global)

Gradus, Jaimie, ScD1; Galea, Sandro, MD, DrPH2

1National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
2Boston University, Boston, Massachusetts, USA

Understanding the mental and physical health sequelae of trauma and trauma-related psychopathology is of paramount public health importance, given the substantial prevalence of traumatic experiences in the US and abroad. In this symposium the long-term outcomes of trauma will be examined across four different populations, as represented by four epidemiologic cohorts. The first is a general population cohort of all Danish adults who received an ICD-10 PTSD diagnosis from 1995-2011. The second presentation will include findings from the US general population National Comorbidity Survey – Adolescent Supplement. A third presentation will include findings from the Neurocognition Deployment Health study of active duty and veteran army members from pre- to post-deployment. The final presentation will be from Project VALOR, a longitudinal cohort of Veterans Health Administration patients. Following the presentations, discussion will include contextualizing these results within the larger field of trauma public health, as well as comparing and contrasting findings across the different represented populations.
The Longitudinal Sequelae of Stress Disorders in the Population of Denmark
(Pub Health, Gender, Adult, M, Industrialized)

Gradus, Jaimie, ScD¹; Kőrmendiné Farkas, Dóra, MSc²; Svensson, Elisabeth, PhD²; Lash, Timothy, Dsc³; TofT Sørensen, Henrik, MD, PhD²
¹National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
²Aarhus University, Aarhus, Denmark
³Emory University, Atlanta, Georgia, USA

Population studies of longitudinal outcomes following stress diagnoses are few. This study examined re-traumatization and incident comorbid psychiatric diagnoses following ICD10 stress disorder diagnoses, and examined associations between the disorders and various longitudinal outcomes including all-cause mortality, suicide, cancer, cardiovascular events and gastrointestinal disorders. Data came from a cohort of all Danes who received a stress disorder diagnosis (ICD10 code: F43.x) from 1995-2011 (n = 101,663), and a general population comparison group (n =508,315). Cumulative incidence curves were plotted for traumatic experiences and psychiatric diagnoses following stress diagnoses. Proportional hazards regression was used to examine associations between the disorders, mortality and suicide. Standardized incidence ratios were calculated for associations between the disorders and physical health outcomes. Traumatic events and psychiatric diagnoses were common following stress disorder diagnosis, with a rate exceeding that in the comparison group. Each disorder was associated with an increased rate of mortality, and strong associations with suicide were found. Varying associations with physical health outcomes were observed. These results show that stress diagnoses have long-lasting and potentially severe consequences in multiple domains over a longitudinal time period.

Psychiatric and Physical Health Morbidity Associated with Multiple Trauma Exposures in a U.S National Sample of Adolescents
(Pub Health, Complex-Health-Illness, Child/Adol, M, Industrialized)

Basu, Archana, PhD¹; Liu, Howard, PhD Candidate¹; McLaughlin, Katie, PhD²; Stolbach, Bradley, PhD²; Koenen, Karestan, PhD¹
¹Harvard School of Public Health, Boston, Massachusetts, USA
²University of Washington, Seattle, Washington, USA
³University of Chicago, Chicago, Illinois, USA

Exposure to multiple traumatic experience (TE) types is associated with complex psychiatric presentations and greater impairment (Cloitre et al., 2009; Karam et al., 2013). Using the National Comorbidity Survey-Adolescent Supplement, we examined if single vs. multiple TEs was associated with impairment in grades and relationships with parents, peers, or teachers across DSM-IV disorders (n=6358; ages 13-18). Having 2 or more TE types was associated with impairment in all domains based on number and type of psychiatric diagnoses, physical health problems, and TE type. Males were more likely to report lower grades (OR=1.8) and problems with teachers (OR=1.6); females were more likely to report peer-related problems (OR=1.9). Adolescents were more likely to report relationship problems when diagnosed with behavior disorders versus fear-based anxiety disorders (OR >1.3). Greater psychiatric comorbidity was associated with lower grades, and problems with parents and peers (OR>1.2). Network trauma/witnessing a TE (OR=1.5), or other/private TE versus being in an accident (OR=1.6) were associated with problems with parents. Chronic pain (OR=1.9) or headaches (OR=1.4) were also associated with problems with parents. Multiple TEs in childhood are associated with broad-spectrum psychiatric and physical health problems, which underscore the need for tailored interventions.
Short- and Long-term Longitudinal Outcomes of Military Deployment to the Iraq War: Findings from the Neurocognition Deployment Health Study

Vasterling, Jennifer, PhD1; Proctor, Susan, DSc2; Aslan, Mihaela, PhD3; Concato, John, MD MPH3

1National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
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3Clinical Epidemiology Research Center, VA Cooperative Studies Program, West Haven, Connecticut, USA

The Neurocognition Deployment Health Study (NDHS) was established to prospectively examine neurocognitive and mental health outcomes of Iraq War deployment, beginning with pre-deployment assessment. This presentation will begin with a summary of the short-term PTSD and neurocognitive outcomes in a cohort of N = 1595 Army soldiers sampled at the battalion level (representing a range of warzone duties) and comparing deployed with non-deployed soldiers. Findings from the early stages of the NDHS suggest that warzone deployment is associated with increased PTSD symptoms and neurocognitive abnormalities. Early findings further indicate that a) both military and non-military stress exposures create risk for PTSD, b) patterns of association between risk factors and PTSD may differ across duty status (regular active duty versus activated reservist soldiers), and c) social support may buffer the adverse effects of warzone deployment on short-term (within the year following return from deployment) PTSD outcome. We will additionally present long-term PTSD outcome data on N = 598 NDHS cohort members who, as part of VA Cooperative Studies Program #566, were subsequently assessed an average of 7.9 years after their first Iraq deployment. Findings across phases will be discussed in relation to key risk factors.

Longitudinal Associations between Posttraumatic Stress Disorder and Metabolic Syndrome Severity

Marx, Brian, PhD1; Wolf, Erika, PhD2; Bovin, Michelle, PhD3; Green, Jonathan, PhD4; Mitchell, Karen, PhD5; Stoop, Tawni, BA6; Barretto, Kenneth, BA6; Jackson, Colleen, PhD6; Lee, Lewina, PhD2; Trachtenberg, Felicia, PhD6; Rosen, Raymond, PhD6; Keane, Terence, PhD7

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3VA Boston Healthcare System, National Center for PTSD: Boston University School of Medicine, Boston, Massachusetts, USA
4VA - National Center for PTSD, Boston, Massachusetts, USA
5National Center for PTSD, VA Boston Healthcare System, Boston University School of Medicine, Boston, Massachusetts, USA
6VA Boston Healthcare System, Boston, Massachusetts, USA
7Boston University School of Medicine and VA Boston Healthcare System, Boston, Massachusetts, USA
8New England Research Institutes, Inc., Watertown, Massachusetts, USA

Posttraumatic stress disorder (PTSD) is associated with elevated risk for metabolic syndrome (MetS). However, the direction of this association is not yet established, as most prior studies employed cross-sectional designs. This study evaluated bidirectional associations between PTSD and MetS using a longitudinal design. 1,355 male and female veterans underwent PTSD diagnostic assessments and data pertaining to MetS were extracted from the electronic medical record at two time points (spanning ~2.5 years, n = 971 at time 2). The prevalence of MetS among veterans with PTSD was just under 40% at both time points and was significantly greater than that for veterans without PTSD. Analyses revealed that PTSD severity predicted subsequent increases in MetS severity (β = .08, p = .002), after controlling for initial MetS severity, but MetS did not predict later PTSD symptoms. Logistic regression results suggested that for every 10 PTSD symptoms endorsed at time 1, the odds of a subsequent MetS diagnosis increased by 56%. Results highlight the substantial cardiometabolic
concerns of young veterans with PTSD and provide further support for the notion that PTSD may be associated with accelerated aging, in part, manifested clinically as MetS. This demonstrates the need to identify those with PTSD at greatest risk for MetS and to develop interventions that improve both conditions.

**Symposium**

**Friday, November 11**

**4:15 PM to 5:30 PM**

**Dallas D1**

**Translational Perspectives on the Clinical Application of Oxytocin among Individuals with PTSD**

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

Flanagan, Julianne, PhD; Olff, Miranda, PhD

1Medical University of South Carolina, Charleston, South Carolina, USA
2Academic Medical Center at the University of Amsterdam and Arq Psychotrauma Expert Group, Amsterdam, Noord-Holland, Netherlands

Four clinical investigations examining the effects of oxytocin in PTSD populations will be presented. Clinical laboratory, neurobiological, and neuroimaging approaches are discussed in combination with treatment development studies. Results highlight oxytocin’s potential utility among individuals with PTSD and indicate moderators of oxytocin response to inform future treatment development efforts.

**Augmenting Prolonged Exposure Therapy for PTSD with Intranasal Oxytocin: Safety, Feasibility, and Acceptability**

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

Flanagan, Julianne, PhD; Moran-Santa Maria, Megan, PhD; Messinger, Justin, BA; Back, Sudie, PhD

Medical University of South Carolina, Charleston, South Carolina, USA

While Prolonged Exposure (PE) for PTSD is highly efficacious, there is a critical need to improve PE retention and outcomes. Oxytocin has demonstrated positive effects on anxiety, fear extinction, and neurobiological underpinnings of PTSD. Prevailing hypotheses suggest that oxytocin might allow patients who would otherwise be unable to complete PE treatment and obtain an adequate therapeutic dose. However, no previous studies have augmented an evidence-based treatment for PTSD with oxytocin. This randomized, placebo-controlled, double-blind pilot study examines the potential synergistic effects of combining PE and oxytocin (40 IU weekly). To date, 9 patients have completed treatment and 2 are currently enrolled. No adverse events have occurred. While this study remains blinded, preliminary A-B analyses indicate that patients in both groups evidence substantial reductions on the Clinician Administered PTSD Scale (CAPS-5), PTSD Check List (PCL), and Beck Depression Inventory (BDI). Preliminary findings demonstrate that combining PE with oxytocin is feasible, well-tolerated, and acceptable to patients. Complete unblinded results examining the potential moderating effects of trauma severity and baseline plasma oxytocin levels will be presented.

**Intranasal Oxytocin Administration as Early Preventive Intervention for PTSD: Efficacy and Prescriptive Factors**


van Zuiden, Mirjam, PhD; Frijling, Jessie, MSc; Nawijn, Laura, MSc; Koch, Saskia, MSc; Bosch, Jos, PhD; Veltman, Dick, MD PhD; Olff, Miranda, PhD

1Academic Medical Center, University of Amsterdam, Amsterdam, Noord Holland, Netherlands
2Universiteit van Amsterdam, Amsterdam, Noord Holland, Netherlands
3VU University, Amsterdam, Noordholland, Netherlands
4Academic Medical Center at the University of Amsterdam and Arq Psychotrauma Expert Group, Amsterdam, Noord-Holland, Netherlands

As oxytocin administration was found to beneficially influence neurobiological and socio-emotional factors associated with PTSD vulnerability, we hypothesized that administration of this neuropeptide early post-trauma may prevent PTSD development.
We performed a randomized placebo-controlled trial in 120 Emergency Department patients to investigate effects of intranasal oxytocin (7.5 days/40 IU oxytocin/twice daily), initiated within 12 days post-trauma, on clinician-rated PTSD symptoms (CAPS) at 1.5, 3 and 6 months post-trauma. We additionally assessed whether clinical and neurobiological factors prior to treatment moderated treatment effects. Intention-to-treat analyses showed no significant differences in clinician-rated PTSD symptoms at follow-up between oxytocin (n=53) and placebo (n=54) conditions. However, baseline PTSD symptom severity significantly moderated the oxytocin effect on follow-up PTSD symptoms, with protective effects in participants with high baseline symptoms. Salivary cortisol levels at baseline did not significantly moderate treatment effects. Thus, repeated oxytocin administration early post-trauma is a promising preventive intervention for PTSD specifically for individuals who exhibit high acute PTSD symptoms. Additional results on moderating effects of baseline plasma oxytocin levels and heart rate variability on treatment efficacy will be presented.

**Childhood Trauma Alters the Effects of Oxytocin on Amygdala Reactivity to Fear in Individuals with PTSD**

(Bio Med, CPA-Clin Res-Neuro, Adult, M, N/A)

*Moran-Santa Maria, Megan, PhD; Flanagan, Julianne, PhD; Back, Sudie, PhD; Joseph, Jane, PhD*

*Medical University of South Carolina, Charleston, South Carolina, USA*

Childhood trauma (CT) increases the risk for Posttraumatic Stress Disorder (PTSD). Hyperactive amygdala reactivity has been implicated in symptoms of PTSD. Thus interventions that attenuate amygdala reactivity may be effective treatment options for PTSD. Oxytocin is an anxiolytic neuropeptide that attenuates amygdala responding so social cues. The purpose of the study was to examine the effects of intranasal oxytocin (24 IU) or placebo (saline) on amygdala reactivity in individuals with PTSD (n=19) and resilient controls (n=20). Amygdala reactivity during an implicit facial affect recognition task was measured using blood oxygen level dependent (BOLD) functional magnetic resonance imaging (fMRI). Childhood trauma history was assessed using the Childhood Trauma Questionnaire (CTQ). Anxiety was measured using the State Trait Anxiety Index. Within the PTSD group a significant negative association was found between the change in the amygdala reactivity and childhood trauma following oxytocin administration (r = -0.464, p < 0.05). In addition, a significant negative association was found between the change in the STAI score and childhood trauma (r = -0.563, p < 0.02). These data suggest that oxytocin may differentially impact amygdala reactivity and anxiety among individuals with PTSD as a function of childhood trauma.

**Effects of Oxytocin on Stress Reactivity and Craving among Veterans with Co-Occurring PTSD and Alcohol Use Disorders**

(Clin Res, Bio/Int-Sub/Abuse-Mil/Vets, Adult, M, Industrialized)

*Back, Sudie, PhD; Flanagan, Julianne, PhD; Moran-Santa Maria, Megan, PhD; Henschel, Aisling, BS; Messinger, Justin, BA; Brady, Kathleen, MD, PhD; McGinty, Jacqueline, PhD*

1*Medical University of South Carolina, Charleston, South Carolina, USA*

2*University of Memphis, Memphis, Tennessee, USA*

3*Medical University of South Carolina and the Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA*

Posttraumatic stress disorder (PTSD) and alcohol use disorder (AUD) and are chronic, debilitating conditions that commonly occur. Oxytocin has shown positive effects on substance craving, self-administration, tolerance, withdrawal and the ability to ameliorate both neurobiological and behavioral foundations of PTSD and AUD. However, few studies have examined the effects of oxytocin among individuals with this complex comorbid condition. This randomized, double-blind laboratory study examined the effects of oxytocin (40 IU) versus placebo on neurobiological (i.e., salivary cortisol), physiological (i.e., blood pressure and heart rate) and subjective stress reactivity (e.g., craving, anxiety, aggression). Veterans (N=65) with current PTSD and AUD completed assessments at several time points prior to and following the Trier Social Stress Task. Preliminary blinded analyses indicate that groups did not differ on demographic or key clinical characteristics (e.g., trauma exposure, PTSD and AUD symptom severity). The findings reveal statistically significant group differences in subjective ratings of aggression over time (p < .05). Complete unblinded results examining the effects of drug condition on cortisol, physiological, and
subjective reactivity to the laboratory stress task will be presented. Additional results will examine moderating effects of PTSD and AUD severity.

Symposium
Friday, November 11
4:15 PM to 5:30 PM
Dallas D3

Attention to Emotion in Posttraumatic Stress Disorder: Neurobiological Response to Positive Cues and Relationship to Recovery
(Assess Dx, Affect/Int-Cog/Int-Bio/Int-Neuro, Adult, M, Industrialized)

Fani, Negar, PhD¹; Bradley, Bekh, PhD²
¹Emory University School of Medicine, Atlanta, Georgia, USA
²Atlanta VAMC/Emory University, Decatur, Georgia, USA

A frequent point of focus in neurobiological studies of posttraumatic stress disorder (PTSD) is characterizing response patterns to threat-related cues. However, PTSD-specific responses to positive emotional cues are not well understood, as well as their potential associations with anhedonic features of PTSD (i.e., emotional detachment and numbing). Further, it remains unclear how these response patterns change over time, as people recover from trauma exposure. Using behavioral and physiological methods, including eye-tracking, measurement of motor response, and functional MRI, we will discuss how PTSD is associated with differential attentional responses to various emotional cues. We will also identify patterns of attention that correspond to different facets of PTSD, such as anhedonic features. We will show how these features have a unique behavioral and physiological signature using two different attentional (dot probe and Affective Number Stroop Task) and physiological (eye-tracking and fMRI) methods. Using fMRI, we will show how recruitment of attentional control resources changes over time in recently traumatized people, and how these patterns of response correspond with resilience. We will discuss the clinical implications of these findings, including how these methods can be used at the point of entry to identify appropriate psychotherapeutic interventions.

Anhedonia in Treatment-Seeking Veterans: Reward Learning and Feedback-Related Negativity
(Assess Dx, Depr-Bio/Int-Mil/Vets, Adult, M, Industrialized)

Eskelund, Kasper, PhD, MSc¹; Karstoft, Karen-Inge, PhD, Cpsych²; Andersen, Søren, PhD, Cpsych³
¹Danish Veteran Centre, Kbh O, Kbh P, Denmark
²Research and Knowledge Center, The Danish Veteran Center, Ringsted, Denmark

Anhedonia is a core feature of depression and is also among the symptoms of “negative alterations in cognitions and mood” in posttraumatic stress disorder (PTSD) DSM-5. Hence, anhedonic symptoms might be a connecting link in understanding high rates of comorbidity between PTSD and depression. In this study, we investigate anhedonia and neural underpinnings thereof in treatment seeking veterans (N=71). We do this in a well-validated experimental paradigm of reward learning (Santesso et al., 2008). In this task, individuals who are motivated by reward develop a response bias, and since anhedonic individuals are less motivated by reward, they are expected to develop a weaker bias. Anhedonic symptoms are assessed with the MASQ-anhedonic depression subscale (Clark & Watson 1991), and EEG is recorded simultaneously with the task. We find a positive correlation (r=.30, p=.015) between reward learning and positive affect, indicating that individuals who do not learn from reward also experience a lack of positive emotions. Further, we present data on the EEG-based measure of feedback-related negativity (FRN), which reflects activity in the dorsolateral anterior cingulate cortex and is hypothesized to be elicited by reward. We therefore hypothesize that FRN plays a role in anhedonic features of PTSD.

Recruitment of Top-down Attentional Control over Time Following Trauma: A Mechanism for Resilience?
(Bio Med, Cog/Int-Bio/Int-Neuro, Adult, M, Industrialized)

Thornton, Laura, PhD
Boys Town National Research Hospital, Boys Town, Nebraska, USA

The neurobiology of resilience is poorly understood. One potential mechanism of resilience is emotion...
regulation via top-down attentional control. We predicted that improvement in sub-clinical trauma symptoms would be associated with a reduced need to recruit regions associated with top-down attentional control during emotional conditions with tasks demands. 22 combat veterans completed an emotion-attention task during fMRI scanning upon returning from deployment and were scanned again 6-12 months later. Improvement in trauma symptoms was associated with decreased recruitment of regions associated with top-down attentional control (parietal cortex) during emotional task relative to emotional passive viewing, conditions. No significant difference in association between trauma symptoms and neutral task/viewing conditions was observed. Consistent with hypotheses, improvement in trauma symptoms was associated with a reduced need to recruit top-down attentional control in order to successfully complete an emotion-attention task. These data suggest that emotion regulation via top-down attentional control may be an important factor in resilience. Further, these data potentially implicate a neurobiological mechanism for emotion regulation interventions following traumatic exposure.

Attention Biases toward Emotional Face Cues and Anhedonic PTSD Symptoms: An Eye-Tracking Study
(Clin Res, Cog/Int, Adult, M, N/A)

Briscione, Maria, BS\(^1\); Fani, Negar, PhD\(^2\); Cao, Minhguyen, BS\(^2\); Flowers, Nathaniel, BA\(^2\); Kim, Ye Ji, BA\(^2\); Lakshman, Maya, Undergraduate\(^2\); Shin, Jiyoon, Undergraduate\(^2\); Norrholm, Seth, PhD\(^4\); Jovanovic, Tanja, PhD\(^3\); Ressler, Kerry, MD PhD\(^3\); Bradley, Bekh, PhD\(^3\); Powers Lott, Abigail, PhD\(^4\)

\(^1\)Emory University School of Medicine/Atlanta Veteran's Administration, Atlanta, Georgia, USA
\(^2\)Emory University School of Medicine, Atlanta, Georgia, USA
\(^3\)Harvard Medical School, Belmont, Massachusetts, USA
\(^4\)Atlanta VAMC/Emory University, Decatur, Georgia, USA

Posttraumatic stress disorder (PTSD) has been associated with different patterns of attention bias to emotional cues, although findings have been somewhat varied, with few studies measuring these biases directly—i.e., via eye-tracking; extant studies have also not examined how these biases relate to disparate clinical phenomena in PTSD, including anhedonia. This was the goal of the present study.

African American women with and without PTSD (n=70) were eye-tracked during administration of a dot probe task. Task stimuli were photographs of facial expressions; one neutral expression was paired with either a happy or angry expression. PTSD severity and diagnosis was assessed using the PTSD Symptom Subscale for DSM-IV; anhedonia subscale score was calculated based on prior research (Kashdan 2006). Trauma exposure was assessed using the Traumatic Events Inventory. Among women with PTSD (n=35), anhedonia scores correlated with longer average dwell duration on angry compared to neutral faces \((r=.410, p=.016)\), while hyperarousal symptom severity correlated with longer average dwell duration on happy compared to neutral faces \((r=.406, p=.017)\); these effects were significant after accounting for trauma exposure. These results show different clinical phenomena in PTSD are associated with disparate attentional bias patterns; clinical implications of these findings will be discussed.

Attentional Control and Anhedonia in Posttraumatic Stress Disorder

Fani, Negar, PhD\(^1\); Jovanovic, Tanja, PhD\(^1\); Ressler, Kerry, MD PhD\(^3\); Bradley, Bekh, PhD\(^3\)

\(^1\)Emory University School of Medicine, Atlanta, Georgia, USA
\(^2\)Harvard Medical School, Belmont, Massachusetts, USA
\(^3\)Atlanta VAMC/Emory University, Decatur, Georgia, USA

Although disrupted attention in the context of threat has been shown in functional neuroimaging studies of posttraumatic stress disorder, few studies have investigated the nature of attentional disruptions to positive stimuli. Further, it is not clear how these disruptions associate with clinical PTSD features related to diminished positive affect (e.g., emotional numbing). This was the goal of the present study. Fifty traumatized women with and without PTSD were administered an attention control task that included positive, trauma-relevant, and neutral distractor images during fMRI. Compared to similarly traumatized controls, those with PTSD had poorer task performance overall. Hyperarousal was related to errors on nearly all trial types \((p<.05)\). However, anhedonic symptoms were related to errors on specifically the positive distractor trials.
In response to these trials, participants with PTSD also demonstrated greater BOLD response in brain regions associated with attentional control (dorsolateral and medial prefrontal cortex). These data indicate that positive cues disrupt attention in this PTSD population, which may lead to a greater recruitment of attentional control resources. Positive cues may be particularly disruptive for those with severe PTSD-related anhedonia; thus, modifying response to these stimuli may be an appropriate intervention target.

**Symposium**

**Friday, November 11**

**4:15 PM to 5:30 PM**

**San Antonio Ballroom A**

**Clarifying Connections between Cannabis Use and PTSD: Moving from the Laboratory to the Treatment Clinic**

(Pub Health, Affect/Int-Clin Res-Health-Sub/Abuse, Adult, M, Industrialized)

Dworkin, Emily, PhD1; Bonn-Miller, Marcel, PhD2

1University of Washington School of Medicine, Seattle, Washington, USA
2VA, Menlo Park, California, USA

Cannabis use is common among people with PTSD and the likelihood of having a cannabis use disorder is three times higher among people with PTSD than those without (Kessler et al., 1995). In addition, cannabis is increasingly prescribed medicinally for people with PTSD despite evidence that using cannabis to cope with PTSD increases risk for problematic cannabis use (Bonn-Miller et al., 2014; Bonn-Miller & Zvolensky, 2009). While research examining other forms of substance use suggests that associations between substance use and PTSD are complex and possibly reciprocal, less work has focused on interactions between cannabis and PTSD. To inform this growing body of literature, this symposium incorporates experimental, observational, event-level, and treatment outcome data across diverse populations. The presentations will discuss (1) connections between cannabis use and extinction of conditioned fear responses, (2) daily fluctuations of cannabis use and PTSD symptoms, (3) how people who use cannabis to self-medicate PTSD differ from other cannabis users, and (4) the role of cannabis use in treatment outcomes. By taking a translational approach, this symposium sheds light on mechanisms by which cannabis use and PTSD interact. Dr. Bonn-Miller, the leading expert in PTSD/cannabis comorbidity, will discuss the clinical and policy implications of these findings.

**Does PTSD Predict Marijuana Use?**

**Event-level Relationships between PTSD and Marijuana Use among Young Sexual Minority Women.**

(Res Meth, Orient-Sub/Abuse, Adult, M, Industrialized)

Kaysen, Debra, PhD1; Bedard-Gilligan, Michele, PhD1; Rhew, Issac, PhD2; Lee, Christine, PhD2

1University of Washington, Seattle, Washington, USA
2University of Washington School of Medicine, Seattle, Washington, USA

Sexual minority women have elevated trauma exposure and rates of PTSD compared to heterosexual women and they are also more likely to use marijuana, although no research has examined relationships between PTSD and marijuana use in this population. Daily-level methodologies are necessary to examine proximal temporality between PTSD and use. This study included 90 young adult women ages 18-25, who identified as Lesbian (41.5%) or Bisexual (58.5%) and evaluated daily level associations between their PTSD symptoms and marijuana use. As part of a larger study, participants were assessed at 2 measurement waves each consisting of 14 consecutive daily assessments over 2 years. Marijuana use occurred on 22.8% of the days. Results from generalized mixed effects models showed that a person’s mean level of PTSD symptom severity across days was strongly associated with same-day likelihood of marijuana use (OR = 2.67 for 1 SD increase in PTSD score; p < .001). However, daily deviation from one’s average PTSD score was not associated with marijuana use on the same day or with next-day marijuana use. Findings suggest that PTSD severity may confer general risk for marijuana use rather than being more state dependent and may be more independent from contextual cues.
Chronic Cannabis Use is Associated with Impaired Fear Extinction in Humans
(Clin Res, Bio/Int, Adult, M, Industrialized)

Papini, Santiago, MA1; Ruglass, Lesia, PhD2; Lopez-Castro, Teresa, PhD1; Powers, Mark, PhD4; Smits, Jasper, PhD5; Hien, Denise, PhD, ABPP6
1University of Texas at Austin, New York, New York, USA
2City College of the City University of New York, New York, New York, USA
3City College of New York, New York, New York, USA
4Southern Methodist University, Dallas, Texas, USA
5University of Texas at Austin, Austin, Texas, USA
6Adelphi University, Derner Institute, Garden City, New York, USA

Acute pharmacologic manipulation of the endogenous cannabinoid system in rodents and humans has provided evidence of its critical role in fear extinction, but the effects of chronic cannabis are relatively understudied. Here we examine whether chronic cannabis use is associated with impaired fear extinction in humans. Participants were healthy chronic cannabis users (n=20) and nonuser controls (n=20) matched on age, sex, race, and ethnicity, who all screened negative for psychiatric disorders and other substance use. A two-day differential fear conditioning paradigm with physiological and subjective measurements was used to test the hypothesis that chronic cannabis use would be associated with impaired extinction. Day one included conditioning procedures followed by extinction training. Day two tested between-session extinction. Consistent with hypothesis, chronic cannabis use was associated with reduced extinction of skin conductance response on day one (d=0.78), and day two (d=0.76). Replication and translation of findings are necessary to test potential mechanisms directly, examine whether impairments can be reversed pharmacologically or after a period of cannabis abstinence, and determine whether therapies that rely on extinction learning require targeted augmentative strategies when patients present with chronic cannabis use.

Medicinal versus Recreational Cannabis Use: An Investigation of Characteristics and Correlates among Veterans with PTSD
(Clin Res, Social-Sub/Abuse-Mil/Vets, Adult, M, N/A)

Loflin, Mallory, MA PhD Student1; Earleywine, Mitch, PhD2; Bonn-Miller, Marcel, PhD3
1University at Albany, State University of New York, Albany, New York, USA
2State University of New York, Albany, New York, USA
3VA, Menlo Park, California, USA

Legislative debates surrounding prescription of medicinal cannabis for the treatment of PTSD highlight the need for studies investigating cannabis self-medication among veterans with PTSD. The present study is the first to compare veterans who use cannabis to self-treat PTSD with veterans who use cannabis for other purposes. Analyses tested whether veterans who use cannabis specifically for the purposes of self-medication for their PTSD differ from veterans who use cannabis medicinally for other reasons, or recreationally, in terms of patterns of cannabis use, use of alcohol, and reactivity to combat trauma reminders. The study introduces a novel time change measure to assess reactivity during assessment of combat trauma exposure. Assessment measures were administered online to a sample of veterans with a history of cannabis use (n = 1971). Hypotheses were tested using a series of Bonferroni corrected ANOVAs, t-tests, bivariate and partial correlations. Compared to recreational users, veterans who identify as medicinal cannabis users reported greater combat exposure (d = .56), PTSD symptoms (d = 1.02), subjective arousal when cued (d = .25), and cannabis use (d =.42), but less alcohol use (d = .28). Results suggest that it is our veterans with the most severe symptoms and extensive combat histories that are turning to cannabis use to attempt to alleviate their symptoms.
Associations between Cannabis Use and Treatment Outcomes among Individuals with Co-occurring PTSD and Substance Use Disorders Receiving Cognitive-Behavioral Treatment

Ruglass, Lesia, PhD¹; Hien, Denise, PhD, ABPP²

¹City College of the City University of New York, New York, New York, USA
²Adelphi University, Derner Institute, Garden City, New York, USA

The association between cannabis use and PTSD has been well established, yet its relationship to treatment outcomes has been mixed. This secondary analysis will examine the role of cannabis use in treatment outcomes among a sample of individuals with co-occurring PTSD and substance use disorder (SUD) who received 12 weeks of cognitive behavioral therapy (Concurrent treatment with prolonged exposure (COPE, N=39), Relapse prevention treatment (RPT, N=43), or Seeking Safety (SS, N=69). The Substance Use Inventory was used to assess frequency of cannabis used in the 7 days prior to treatment. Outcome measures include retention, PTSD symptom severity as assessed by the Clinician Administered PTSD Scale and the PTSD Symptom Scale, Self-Report, and primary SUD as assessed by the Structured Clinical Interview for DSM-IV. Generalized estimating equations will be used to identify and compare course of cannabis use over treatment, as well as associations between cannabis use and other symptom outcomes (PTSD and other SUD). Baseline cannabis use will be examined as a predictor and/or moderator of treatment outcomes. Findings will be discussed in the context of whether concurrent cannabis use should be a focus of clinical intervention during integrated treatments for comorbid PTSD and SUD.

Symposium
Friday, November 11
4:15 PM to 5:30 PM
San Antonio Ballroom B

Tending to Issues of Diversity when Implementing Evidence-Based Practices

Smith, Stefanie, PhD
CSPP at Alliant International University, San Francisco, California, USA

Trauma in ethnic/racial minority U.S. groups is a significant public health concern. Despite a large body of evidence that has documented increased difficulties such as PTSD, depression, and functional disability in trauma survivors, particularly those that are culturally diverse and low-income, many diverse trauma survivors underutilize mental health services. The current symposium focuses on the use of public health services research on understanding and facilitating the treatment of trauma and its consequences. The studies presented focus on further understanding implementation of trauma focused treatments in community settings where trauma-exposed culturally diverse, low-income populations often seek and receive treatment by analyzing the concerns and feasibility of implementing specific interventions (Triple P: Positive Parenting Program), training clinicians to implement evidence-based treatment (TF-CBT), and examining the effectiveness of the interventions (psychoeducation, prolonged exposure, and present-centered therapy). Our findings suggest approaching traumatized low-income and culturally diverse trauma survivors at the community health clinics may be a promising step in facilitating service provision, especially if steps are taken to consider culture in choosing and implementing evidence-based approaches.
A Randomized, Controlled, Pilot Study of a Single Session Psychoeducation Treatment for Urban, Culturally Diverse, Trauma-exposed Adults
(Clin Res, Clin Res-Cog/Int-Cul Div-Pub Health, Adult, I, N/A)

Ghafoori, Bita, PhD
California State University, Long Beach, Long Beach, California, USA

A continuing challenge is to develop and evaluate innovative strategies to improve mental health service engagement and outcomes in culturally diverse, low-income, trauma-exposed adults (Gavrilovic, Schützwohl, Fazel & Priebe, 2005; Jaycox et al., 2004; Kelly, Merrill, Shumway, Alvidrez, & Boccellari, 2010). This randomized pilot study aimed to determine whether a single session of psychoeducation improved mental health outcomes, attitudes towards treatment, and service engagement among urban, impoverished, culturally diverse, trauma exposed adults. Sixty-seven individuals were randomly assigned to a single session psychoeducation treatment or a delayed treatment comparison control group. The control group was found to be superior to the treatment group at post-test with respect to symptoms of PTSD, anxiety, occupational and family disability. At follow-up all participants had completed the psychoeducation treatment, and a mixed effects model indicated significant improvements over time in symptoms of PTSD, anxiety, depression, somatization, and attitudes towards treatment. Ninety-eight percent of the participants reported the psychoeducation was helpful at follow-up. Participants also reported a 19.1% increase in mental health service utilization at follow-up compared to baseline. Implications for treatment and future research are discussed.

Implementing Evidence-Based Practice: Considering Issues of Diversity within a Pilot Study
(CulDiv, CPA-Clin Res-Commun-Prevent, Adult, I, Industrialized)

Pinna, Keri, PhD; Vincent, Gabrielle, Undergraduate; Rodarte, Amanda, Undergraduate; Vincent, Rochelle, Undergraduate

St. Catherine University, St. Paul, Minnesota, USA

Background: While, the Positive Parenting Program (Triple P) has shown promise in preventing child maltreatment (Prinz et al., 2009), and evidence suggests that the program is relevant cross-culturally (Morawska et al., 2011), community implementation continues to be rare. A pilot study of Triple P was conducted with a Child Protective Services (CPS)-contracted agency to explore the feasibility of large-scale implementation in a relevant community setting. As low rates of referral were noted, possible barriers to referrals were explored using mixed methods. Methods: Focus groups were conducted with caseworkers. Qualitative focus group results guided analysis of quantitative data. Results: Caseworkers expressed concern that Triple P would not be a good fit to CPS-involved families. They believed the program and its delivery to be culturally insensitive, and that the program would not be equipped to address families’ extensive trauma histories. Parent reports confirmed elevated parental trauma history (M = 7.60 types of trauma), with parents of color reporting both significantly greater trauma history than White parents (M = 9.83 vs M = 4.25, p < .01), and greater PTSD symptoms (M = 44.50 vs M = 29.25, p = .02). Discussion: Implications for serving diverse parents involved with CPS will be discussed.

The Treatment of Low-income, Culturally Diverse Individuals with Complex PTSD: A Randomized, Controlled, Pilot Study of Prolonged Exposure (PE) Compared to Present Centered Therapy (PCT)
(Clin Res, Affect/Int-Commun-Complex-Cul Div, Adult, I, Industrialized)

Hansen, Marissa, PhD, MSSW; Ghafoori, Bita, PhD
California State University, Long Beach, Long Beach, California, USA

Objective: Although many studies support the efficacy of prolonged exposure (PE), the literature has focused on fairly specific populations and traumas. Research on low-income, culturally diverse populations suffering from multiple traumas and complex manifestations of traumatic stress is lacking. The study aim was to determine whether PE improved mental-health outcomes, specifically
PTSD, anxiety, depression, and somatization symptoms, among urban, impoverished, culturally diverse, trauma-exposed adults. **Methods:** Eighty-six individuals were randomly assigned to PE (n=58) or present centered therapy (PCT; n=28). Clients were offered 12 sessions of therapy. Measures (PTSD Checklist (PCL) and Brief Symptom Inventory (BSI) were administered at baseline and sessions 3, 6, 9 and 12. **Results:** Mixed modeling was used to regress PCL and BSI measures on time, treatment-group, and the total number of visits. Results indicate all participants experienced significant reduction in all symptoms over the course of treatment (p < .01). Individuals who received PE treatment showed significant moderate association with decline in reported PTSD symptoms as noted by the PCL (p=.05) compared to PCT. **Conclusion:** Findings suggest PE can be effective in reducing PTSD in low-income, culturally diverse groups with complex trauma. Implications for research and clinical practice will be discussed.

**Factors Affecting the Implementation Fidelity of Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT) Using a Learning Collaborative Model**

(Prof, I, Industrialized)

Donisch, Katelyn, MPH
Bray, Chris, PhD
Gewirtz, Abigail, PhD

1Ambit Network, University of Minnesota, Minneapolis, Minnesota, USA
2University of Minnesota, Minneapolis, Minnesota, USA
3University of Minnesota-Twin Cities Campus, St Paul, Minnesota, USA

Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT) is a manualized treatment model developed for youth who have been exposed to traumatic events. It is specifically designed to treat posttraumatic stress, as well as related concerns in youth, while emphasizing cultural competence (Cohen, Mannarino, & Deblinger, 2006). The Ambit Network of Minnesota has trained approximately 470 clinicians in TF-CBT using the learning collaborative model (Ebert, Amaya-Jackson, Markiewicz, & Fairbank, 2012). Ambit has collected data on learning collaborative participation, fidelity of practice, and child adjustment. Data indicate that clinicians treated 3,344 children using TF-CBT across an array of organizations and service systems, including residential treatment centers, juvenile correctional facilities, and community mental health centers.

Demographically, 55.6% of clients served identified as Caucasian, 11.2% as African American, 7.5% as American Indian, 8.2% as multiracial, and 17.5% as other. Further, 8.9% of children identified as Hispanic. Preliminary analyses indicate that 24.6% of TF-CBT cases were completed, while 75.4% of cases were discontinued for an assortment of reasons. This presentation will explore factors related to TF-CBT case completion and fidelity to the treatment model, including client race and ethnicity, place of residence, and trauma exposure.

**Panel Presentation**

Friday, November 11
4:15 PM to 5:30 PM
Dallas D2

**Developing the Warrior Care Network: Strategies for National Academic Medical Center Collaboration**

(Train/Ed/Dis, Clinical Practice-Fam/Int-Mil/Vets, Adult, I, N/A)

Harvey, Margaret, PsyD
Rauch, Sheila, PhD, ABPP
Sornborger, Jo, PsyD
Zalta, Alyson, PhD

1Massachusetts General Hospital, Boston, Massachusetts, USA
2Emory University School of Medicine/Atlanta Veteran's Administration, Atlanta, Georgia, USA
3UCLA, Los Angeles, California, USA
4Rush University Medical Center, Chicago, Illinois, USA

In this panel, we will discuss the development of the Warrior Care Network, a partnership of 4 academic medical centers (AMCs) designed to provide mental healthcare to veterans and their family members. A staggering number of veterans suffer from ‘invisible wounds of war,’ such as posttraumatic stress disorder and traumatic brain injury. However, many of these individuals have difficulty accessing timely and effective care. Supported by the Wounded Warrior Project, 4 AMCs – Emory University, Massachusetts General Hospital, Rush University Medical Center,
and the University of California, Los Angeles – have developed a national network to expand the continuum of care for veterans and their family members by offering outpatient and intensive outpatient care at no cost. Drs. Margaret Harvey (MGH), Sheila Rauch (Emory), Jo Sornborger (UCLA), and Alyson Zalta (Rush) will discuss the development of the programs at each site, strategies used for the coordination of care and delivery of best practices across the sites, the development of shared program evaluation techniques, cross-network specialization and referral, and collaboration with the VA. We will also highlight the major obstacles that arose in the development of the care network and how these challenges were overcome.

Panel Presentation
Friday, November 11
4:15 PM to 5:30 PM
Houston Ballroom A

How to Submit Graduate and Early Career Awards: What You Need to Know About NIH and VA Grants
(Train/Ed/Dis, Train/Ed/Dis, N/A, I, N/A)

Vogt, Dawne, PhD¹; Iverson, Katherine, PhD²; Gutner, Cassidy, PhD³; Wells, Stephanie, BA⁴; Badour, Christal, MA PhD Student⁵
¹National Center for PTSD, VA Boston Healthcare System and Boston University, Boston, Massachusetts, USA
²National Center for PTSD, Women's Health Sciences Division, VA Boston Healthcare System and Boston University School of Medicine, Jamaica Plain, Massachusetts, USA
³National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
⁴UCSD/SDSU Joint Doctoral Program in Clinical Psychology, San Diego, California, USA
⁵Medical University of South Carolina and the Ralph H. Johnson VA Medical Center, Charleston, South Carolina, 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 F31, K and 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 psychologists to answer questions about the grant submission process specific to graduate students and early career professional conference attendees. Panelists are either training award recipients or mentors on training grants. The panelists will represent the NIH F31 and K awards 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.

Workshop Presentation
Friday, November 11
4:15 PM to 5:30 PM
Dallas A2

Review of Mobile Apps for Clinical Practice: Recommendations for Client Treatment and for Therapist Self-Care
(Practice, QoL-Prevent-Tech-Train/Ed/Dis, N/A, I, Industrialized)

Hallett, Kristina, PhD, ABPP
Bay Path University, Longmeadow, Massachusetts, USA

An ongoing challenge for clinicians is developing mechanisms to support client engagement and compliance with treatment goals and self-help strategies outside of the therapeutic session. Over 91% of adults in the United States utilize a mobile phone (Campbell, 2015). With the ease and portability of mobile phone and device applications (apps), there is an opportunity to increase supportive interventions for clients for the "other 23 hours". Workshop will include discussion of studies on mobile apps and client interest in utilizing mobile apps as an adjunct to outpatient psychotherapy. The presentation reviews available free apps for client use...
to assist in monitoring and tracking mood, anxiety, cognitions, stress level, and related areas. This workshop will allow participants to view and practice several multi-use apps, including PTSD Coach, T2 Mood Tracker, iChill, and LifeArmor, among others. In addition, participants will learn and practice several brief self-care interventions (mindfulness, relaxation and chair-based yoga), which clinicians can both share with clients and utilize themselves for self-care.

**Media Presentation**

**Friday, November 11**

4:15 PM to 5:30 PM

Dallas A3

**Getting the Word Out on Complex Trauma: Use of Multimedia Resources to Support Education and Awareness for Youth and Families and Across Systems**

(Train/Ed/Dis, Assess Dx-CPA-Complex-Media, Child/Adol, I, Industrialized)

Kisiel, Cassandra, PhD1; Fehrenbach, Tracy, PhD1; Habib, Mandy, PsyD2; Spinazzola, Joseph, PhD3

1Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA
2Adelphi University, Garden City, New York, USA
3Trauma Center at Justice Resource Institute, Brookline, Massachusetts, USA

This workshop will feature innovative multimedia resources on complex trauma for youth, caregivers, and providers across service systems, developed in conjunction with the National Child Traumatic Stress Network. We will highlight the following educational resources: 1) a short film "Remembering Trauma: Connecting the Dots between Complex Trauma and Misdiagnosis in Youth” and 2) the Complex Trauma Resource Guide for Youth. The development of an upcoming complex trauma video- made by youth and for youth- will also be discussed. These products are all designed to: 1) enhance understanding of the complex effects of trauma across development, 2) reduce the potential for mislabeling or misdiagnosing symptoms of complex trauma, and 3) enhance public awareness and de-stigmatize trauma-related issues for youth across systems (mental health, child welfare, juvenile justice, schools). We will emphasize use and application of these resources in real world settings. These products are a response to feedback from youth and providers regarding needs and gaps and designed to support professionals across disciplines to use a “trauma lens” in their ongoing work. Participants will be engaged in discussion of how to effectively disseminate and utilize the resources in practice at both an individual level with youth and families and at a systems level for trauma education and advocacy.

**Oral Paper Presentations**

**Friday, November 11**

4:15 PM to 5:30 PM

Houston Ballroom B

**Intergenerational - Parenting Two Paper Session**

**Prediction of Parental Psychopathology and Posttraumatic Growth from Resilience after a Child's Admission to Intensive Care: a Longitudinal Study.**

(Prevent, Anx-Assess Dx-Fam/Int-Illness, Adult, M, Industrialized)

Rodriguez Rey, Rocio, PhD Candidate1; Alonso-Tapia, Jesus, PhD1; Colville, Gillian, PhD2; Casanueva Mateos, Lidia, MD, PhD2; Palacios, Alba, MD1; Kassam-Adams, Nancy, PhD3

1Universidad Autónoma de Madrid, Madrid, Spain
2St George's Hospital, London, United Kingdom
3University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA

This study aims to explore: 1) the parental degree of posttraumatic stress disorder (PTSD), anxiety, depression and posttraumatic growth (PTG) after a child’s hospitalization in intensive care, 2) the role of parental resilience, emotions, stress and perception of child’s illness severity accessed during admission in predicting psychopathology and PTG 3) how psychopathology and PTG relate to each other. Prospective longitudinal cohort study. A total of 196 parents completed questionnaires assessing resilience, stress, positive and negative emotions and perceived severity of their child’s illness 48h post-discharge (T0). Afterwards, they completed
questionnaires on anxiety, depression, PTSD and PTG, three (T1) and six (T2) months later. At T2, 23.1% of parents reported significant PTSD, 21% moderate-severe anxiety, and 9.1% moderate-severe depression. These rates were equivalent at T1. At T2, 37.1% had experienced PTG. Path analyses with latent variables showed that 50% and 20% of the variance in psychopathology and PTG respectively at T2 is predicted by resilience, positive emotions and stress. The correlation between PTG and psychopathology indicates that positive and negative effects of this experience coexist. Preventive psychological interventions aimed at encouraging parental mental health and PTG after a child’s critical admission should focus on fostering resilience.

**Differential Sensitization of Parenting on Early Adolescent Cortisol: Moderation by Profiles of Maternal Child Abuse and Stress**

Gamache Martin, Christina, MS PhD Student¹; Kim, Hyoun, PhD²; Fisher, Philip, PhD¹
¹University of Oregon, Eugene, Oregon, USA
²Oregon Social Learning Center, Eugene, Oregon, USA

The hypothalamic-pituitary-adrenal (HPA) axis is a critical component of the body’s stress-response neurobiological system, and its development and functioning are largely shaped by the social environment. Much of our understanding of the effects of the caregiving environment on the HPA axis is based on a) parenting in young children and b) individual maternal stressors, such as depression. Yet, less is known about how parenting behaviors and maternal stressors, including child abuse, interact to influence child cortisol regulation, particularly in older children. With an ethnically diverse sample of 199 mothers and their early adolescent children (M = 11.00 years; 54% female), a profile analytic approach was used to investigate how multiple phenotypes of maternal stress co-occur and moderate the relation between parenting behaviors and youths’ diurnal cortisol rhythms. Latent profile analysis yielded 4 profiles: current parenting stress, concurrent parenting stress and childhood abuse, childhood abuse, and low stress. The mothers in the concurrent parenting stress and childhood abuse profile were at greatest risk. Findings suggest that based on mothers’ abuse and stress profile, parenting behaviors are differentially related to youths’ diurnal cortisol rhythms and that the one-size-fits all approach to parent training interventions may not be effective for all families.

**The Course of Posttraumatic Stress Symptoms in Couples in Relation to Parental Emotions and Appraisal following Pediatric Burns**

Egberts, Marthe, MSc¹; van de Schoot, Rens, PhD²; Geenen, Rinie, PhD²; Van Loey, Nancy, PhD¹
¹Association of Dutch Burn Centres and Utrecht University, Beverwijk, Noord-Holland, Netherlands
²Utrecht University, Utrecht, Netherlands

A pediatric burn event severely disrupts the life of parents involved. In order to identify which parents of children may need support, we examined the course and predictors of parents’ posttraumatic stress symptoms (PTSS) after a burn event to their child (8 to 18 years old). 111 mothers and 91 fathers completed the Impact of Event Scale at four time points, up to 18 months postburn. Predictors included parental emotions related to the burn event and appraisal of threat to the child’s life, which were investigated in a multilevel regression model. Within the first month postburn, 48% of the mothers and 26% of the fathers reported clinically significant PTSS, which decreased to respectively 19% and 4% 18 months postburn. Feelings of guilt and anger related to the burn event, and perceived life threat were significantly related to parental PTSS, especially in mothers. Results indicate that clinical levels of PTSS may persist in a subgroup of parents following pediatric burns and that predictors of PTSS can be identified in the first months postburn. Findings will be discussed in terms of the need to incorporate parent support in burn care, especially for mothers experiencing high levels of emotions during the (sub)acute phase.
Parental Responses to Child Trauma: The Role of Trauma Specific Behaviours and Parenting Style in Facilitating Child’s Psychological Adjustment

(Hiller, Rachel, PhD; Halligan, Sarah, PhD; Meiser-Stedman, Richard, PhD; Lobo, Sarah, BS, MS; Creswell, Cathy, PhD; Fearon, Pasco, PhD)

1University of Bath, Bath, United Kingdom
2University of East Anglia, Norwich, United Kingdom
3University of Reading, Reading, United Kingdom
4UCL, London, United Kingdom

Social support has been identified as a potential protective factor against poor post-trauma psychological adjustment. While parents are generally children’s main source of support, we know little about how parenting beliefs and styles may impact a child’s post-trauma adjustment. Given the increasing difficulty accessing formal psychological services, identifying avenues to improve informal/social support is essential. This longitudinal study followed 132 families over a 7 month period, following the child’s involvement in a single-incident trauma (primarily motor vehicle accidents). Assessments occurred within 4 weeks of the trauma and then at 3- and 6-month follow-ups. At the first time point the parent and child engaged in two behaviour tasks, one where they discussed the trauma and one where the parent supported the child through a mildly-stress inducing task. A self-report battery of the parent and child’s post-trauma psychological profiles were also completed. Results focus on how parenting behaviours and self-reported beliefs impact on the child’s post-traumatic stress symptom trajectory. Conclusions will highlight how parental support and beliefs impact the child’s psychological adjustment, including the significance of findings for those to whom parents may turn to for advice on supporting their child post-trauma (e.g., hospital staff, school staff, family doctor).

Oral Paper Presentations
Friday, November 11
4:15 PM to 5:30 PM
Houston Ballroom C

Community Paper Session

Developing Trauma-Informed Organizations and Systems: A Universal Measure of Organizational Trauma-Informed Care
(Guarino, Kathleen, LMHC)

American Institutes for Research, Waltham, Massachusetts, USA

Recognition of the high rates of chronic exposure to traumatic stress among service users in behavioral health, health, child welfare, homelessness, and justice systems has galvanized a cross-sector call to adopt “trauma-informed care” across these settings. Unlike “trauma-specific” clinical services, trauma-informed care refers to an organization-wide approach to service delivery provided for all, by all. This approach can be viewed as a universal design for serving trauma survivors that reflects a heightened awareness of context and influence of the service environment on well-being and the effectiveness of individual services; the entire system is used as a vehicle for intervention (Bloom, 1997; Guarino et al., 2009; Harris & Fallot, 2001; SAMHSA, 2014). Trauma-informed care reflects a shift in culture and practice that encompasses everything from the physical environment to the quality of provider and service user interactions. Until recently, there was no formal standard of measurement to define and measure the concept of organizational trauma-informed care. In this presentation, we introduce the Trauma-Informed Organizational Capacity Scale, a new, psychometrically validated instrument to measure level of trauma-informed care in health and human service settings. Presenters will discuss tool development and implications for the field.
Dissemination of a Trauma-Focused School-Based Intervention Using a Performance Feedback Data System (Train/Ed/Dis, Tech, Child/Adol, I, Industrialized)

Sapere, Heather, MA; Lang, Jason, PhD
Child Health and Development Institute, Farmington, Connecticut, USA

Schools present an excellent context to provide mental health services because children spend most of their days in school and schools are less stigmatizing than going to a behavioral health agency. This presentation describes initial results of a state-funded ongoing dissemination of Cognitive Behavioral Intervention for Trauma in Schools (CBITS), an evidence-based group trauma intervention delivered in schools. The implementation approach is comprised of a unique Learning Community where clinicians receive ongoing clinical and implementation consultation and support over one year. Clinicians use a statewide evidence-based practice (EBP) web-based performance feedback data system to track and report client progress, outcomes, and fidelity for CBITS (as well as other EBPs). A description of the implementation approach and performance feedback system will be provided, together with results from more than 500 children screened for trauma and more than 100 children receiving CBITS. Preliminary data from the first 63 children to receive CBITS show significant reductions in PTSD symptoms and an 86% treatment completion rate. Additional data on standardized measures of behavior problems and functioning (Ohio Scales), treatment satisfaction, and fidelity will be discussed. Recommendations will be made for disseminating CBITS or other interventions in school settings.

An Investigation of Psychological and Social Support Services within Regional Emergency and Disaster Preparedness and Planning: Organization, Competence and Collaboration amongst Key Agencies (Social, Comm/Int-Prevent, Prof, I, Industrialized)

Naslund, Monika, BBSc, MPsych
Regional Centre for Crisis and Disaster Psychology, Stockholm, Huddinge, Stockholm, Sweden

This project examined the emergency psychological and social support services of Stockholm’s regional disaster preparedness and emergency response, specifically the organization, collaboration and competence of key providers of psychological and social support in emergency and disaster preparedness and planning. The project occurred in three phases: firstly, a survey to map existing services of lead emergency response organizations; secondly, based on input from a joint representational working group and the survey data, the formation of a regional action plan for emergency crisis support services. Finally, this regional action plan was trialed in a specifically designed simulation exercise in which key members from the Stockholm Resilience region (SSR), a collaborative forum of lead emergency services, participated. Favorable outcomes identified included the establishment of a preliminary regional action plan for emergency crisis support services, improved capacity to collaborate and to provide coordinated crisis support and raised awareness of the need for psychological and support services within the Stockholm Resilience region forum. A major challenge which remains includes the need to establish an ongoing forum to ensure the existence of and incorporation of a collaborative and comprehensive psychological and social support response in the event of a serious incident.

What People with PTSD Symptoms Do (and Don't) Know about PTSD: A National Survey (Social, Clinical Practice-Comm/Int-Train/Ed/Dis-Mil/Vets, Adult, I, Industrialized)

Matteo, Rebecca, PhD; Harik, Juliette, PhD; Hermann, Barbara, PhD; Hamblen, Jessica, PhD
1National Center for PTSD/White River Junction VA, White River Junction, Vermont, USA
2National Center for PTSD, White River Junction, Vermont, USA
3VA National Center for PTSD, Executive Division, White River Junction, Vermont, USA
4VA National Center for PTSD/White River Junction VA Medical Center, White River Junction, Vermont, USA

Objective: This study examined what people with posttraumatic stress disorder (PTSD) symptoms know about PTSD and its treatment. We hypothesized that prior military service and prior receipt of PTSD treatment would predict greater PTSD knowledge. Method: We conducted an online...
survey assessing knowledge in three domains: trauma, PTSD symptoms, and effective PTSD treatments. Participants were 301 adults (50% veterans, 50% non-veterans) drawn from a national research panel who screened positive for PTSD. Results: Participants were more adept at recognizing traumatic events and PTSD symptoms than effective PTSD treatments. Discrimination of distractor items was poor across domains. Most participants thought divorce (51.8%) was a trauma that could lead to PTSD, that hearing voices (56.5%) and drug addiction (85.7%) were PTSD symptoms, and that benzodiazepines (75.4%) and antipsychotics (61.2%) were effective PTSD treatments. Being a veteran and having received prior PTSD treatment were associated with small but significant increases in PTSD knowledge. Conclusions: People with PTSD symptoms lack knowledge about the disorder, especially regarding effective treatments. Public education about PTSD and effective treatments is needed so that people know when to seek treatment and which treatments to choose.
Saturday, November 12

Keynote Address
Saturday, November 12
8:50 AM to 9:50 AM
Dallas B/C

Supporting Vast Numbers of People in Communities Affected by Adversity: Lessons Learned (So Far)
(Pub Health, Commun-Nat/Dis-Civil/War-Care, Lifespan, A, Global)

van Ommeren, Mark, PhD
World Health Organization, Geneva, Geneva 27, Switzerland

Following exposure to violence, disaster, or other adversity, rates of mental health problems and non-pathological distress increase. At the same time, most people in countries affected by adversity do not have access to appropriate mental health support. Despite insufficient numbers of (a) mental health specialists (b) non-specialists working for mental health, and (c) public mental health practitioners, this area of public health has much momentum. This presentation will seek to cover the World Health Organization (WHO)’s approach to addressing vast mental health needs in emergency-affected countries. It will emphasize 4 aspects: (a) mental health system building (as described in WHO (2013) Building back Better: Sustainable Mental Health Care after Emergencies), (b) clinical interventions integrated in general health services (as described in the WHO & UNHCR (2015) mhGAP Humanitarian Intervention Guide: Clinical Management of Mental, Neurological and Substance Use Disorders in Humanitarian Emergencies, (c) social interventions that can reach large numbers of people with the aim to create a supportive recovery environment (as described in the Inter-Agency Standing Committee (IASC, 2007) Guidelines on Mental Health and Psychosocial Support in Emergency Settings), and (d) scalable (low resource-intensity) psychological interventions, as currently developed and tested by WHO and many partners. The presentation includes both country and normative examples with lessons learned and relearned (such as “training without supervision is entertainment” and “in public health, less is often more”).
CONCURRENT SESSION NINE

Invited Symposium
Saturday, November 12
10:15 AM to 11:30 AM
Dallas B/C

Sleep and Nightmares in PTSD:
Advances in Neuroscience and Treatment
(Clin Res, Bio/Int-Sleep, Adult, M, Global)

Raskind, Murray, MD1; Peskind, Elaine, MD2
1Puget Sound Health Care System and University of Washington, Seattle, Washington, USA
2VA Puget Sound Healthcare System, Seattle, Washington, USA

Sleep disturbance and nightmares are distressing clinical symptoms central to PTSD that often are resistant to commonly used psychotherapies and or pharmacotherapies. In turn, sleep impairment can also adversely affect the neural circuits underlying resilience to trauma and can contribute to adverse general health outcomes in PTSD. This symposium brings together clinical investigators with extensive research experience addressing both the neuroscience and treatment of those critically important nocturnal PTSD symptoms. Recent neuroscience research findings on the effects of sleep deprivation on extinction learning and recall, and on increased autonomic arousal and immune activity in an urban minority sample with highly prevalent hypervigilant sleep fears and PTSD will be presented. The symposium also will address steps toward a “precision treatment” of nightmares and sleep disturbance. Data will be presented supporting: pretreatment blood pressure may be a useful “biomarker” for predicting response of trauma nightmares and sleep disturbance to prazosin in combat PTSD; clinical severity and demographic characteristics may influence nightmare response to imagery rehearsal therapy in Veterans; a brief behavioral treatment normalizes neural responses to threat in chronic insomnia; and alternative cognitive strategies along with behavioral modifications targeting the disruptive effects of nocturnal vigilance on sleep.

Acute and Chronic Sleep Disruption:
Interference with Neural Pathways
Underlying Fear Learning and Extinction
(Clin Res, Bio/Int-Sleep, Adult, M, Global)

Germain, Anne, PhD
University of Pittsburgh, Pittsburgh, Pennsylvania, USA

Acute and chronic sleep disruption is associated with increased neural and physiological responsiveness to emotionally salient cues, and learning and memory. Our understanding of the impact of acute and chronic sleep loss on neural circuits underlying responses to threat and reward cues, as well as fear learning and extinction remains limited. By using experimentally induced sleep loss in healthy sleepers, we evaluated the relationship between sleep and the neural circuits involved in maladaptive trauma-related responses including posttraumatic stress disorder (PTSD) or depression and addictive behaviors. We find that total sleep deprivation interferes with extinction learning and recall, and blunts neural responses to reward cues. In a sample of adults with chronic sleep disruption, the treatment of chronic insomnia with a brief behavioral intervention was associated with a normalization of neural responses to threat and reward cues. The findings suggest that acute sleep loss and chronic sleep disturbances adversely impact neural responses to threats and reward cues, and that this effect can be rapidly reversed by sleep-specific interventions. These findings can inform prevention and intervention strategies aimed at enhancing psychological resilience and accelerating recovery from sleep-disrupting life events.

Nocturnal Arousal and Trauma and Stress-Related Sleep Disturbance
(Clin Res, Bio/Int-Sleep, Adult, M, Global)

Mellman, Thomas, MD
Howard University College of Medicine, Washington, District of Columbia, USA

Compromised sleep is common among formerly deployed Veterans and residents of stressful urban environments and likely contributes to the risk of physical and mental health conditions in both populations. Veterans may be unable to “turn-off”...
hypervigilance even when they are in a safe sleep environment. Residents of urban areas and threatening environments also display nocturnal vigilance and compromised sleep with police sirens at night, crime and the ongoing threat of violence contributing. Through surveying minority residents of urban environments and combat Veterans we have found that “Fear of Sleep” prominently featuring nocturnal vigilance significantly contributes to insomnia. In the urban minority sample, PTSD and sleep fears also contribute to increased autonomic arousal during sleep which in turn is associated with elevated morning levels of the immune activating cytokine interleukin-6 (IL-6). This suggests a pathway by which nocturnal arousal can influence adverse health outcomes. Current established treatments for insomnia may not be optimal for counteracting conditioned nocturnal vigilance. We are exploring the acceptability and effectiveness of alternative cognitive strategies along with behavioral modifications for targeting the disruptive effects of nocturnal vigilance on sleep.

**Imagery Rehearsal Therapy for Recurrent Nightmares in Combat-Related PTSD**  
(Clin Res, Bio/Int-Sleep, Adult, M, Global)

**Ross, Richard, MD PhD**  
*Philadelphia VA Medical Center, Philadelphia, Pennsylvania, USA*

Recurrent combat-related nightmares are highly prevalent in military Veterans with PTSD. Cognitive behavioral treatments (CBTs) that have demonstrated effectiveness for the waking symptoms of PTSD, specifically prolonged exposure and cognitive processing therapy, have not been shown to significantly reduce this nightmare disturbance. Imagery rehearsal (IR), which involves scripting a recurrent nightmare and practicing the changed dream before bed, is a form of CBT that can be useful in treating nightmares in some traumatized populations. Our group’s randomized controlled trials of IR in Veterans with severe PTSD have shown reductions in nightmare symptoms but have not demonstrated superiority of IR to insomnia-focused CBT. However, there is preliminary evidence that IR may have greater efficacy in certain Veteran subgroups, in particular women and individuals with less severe nightmare symptoms. Future research should continue to explore predictors of a positive treatment outcome with IR and strategies for enhancing treatment response.

**Higher Pretreatment Blood Pressure is Associated with Greater Nightmare and other PTSD Symptom Reduction to Prazosin**  
(Clin Res, Bio/Int-Sleep, Adult, M, Global)

**Raskind, Murray, MD**  
*Puget Sound Health Care System and University of Washington, Seattle, Washington, USA*

In a positive randomized controlled trial of the brain active alpha-1 adrenoreceptor antagonist prazosin for combat trauma PTSD with nightmares, an individual soldier’s PTSD symptom characteristics did not predict treatment response. Standing blood pressure (BP) is an accessible biologic parameter that reflects noradrenergic stimulation of alpha-1 adrenoreceptors. Effects of baseline standing systolic BP on PTSD outcome measure responses to prazosin (n=32) or placebo (n=35) were analyzed using linear mixed effects models. In prazosin participants, each 10 mmHg baseline standing systolic BP increment resulted in an additional 14 point reduction in CAPS total score and similar incremental improvements in sleep and nightmare measures. In placebo participants there was no signal for a baseline BP effect on outcomes. Higher standing BP is a potentially useful biomarker for identifying persons with combat PTSD likely to benefit from prazosin.

**Symposium**  
**Saturday, November 12**  
**10:15 AM to 11:30 AM**  
**Dallas A1**

**Predictors of Trauma-Related Stress in High Risk Occupations**  
(Pub Health, Journalism-Prevent-Mil/Vets-Genetic, Other, M, Industrialized)

**Drevo, Susan, MA PhD Student**: Newman, Elana, PhD  
*The University of Tulsa, Tulsa, Oklahoma, USA*

Many occupations serve to protect the nation’s citizens and their health in the aftermath of tragedy, conflict, and disaster. Although these occupational
groups work in high stress environments and may be exposed to frequent and prolonged trauma exposure while serving the public in their occupational role, their response to these events is relatively overlooked in the literature. Examining occupational groups the public relies on for their safety and security should be a public health priority. Three researchers will present on a different high risk occupational groups (i.e., journalists, police officers, and active duty military) and present findings that indicate different pathways related to trauma response. The discussant will discuss risk and resiliency factors in findings across these occupational groups, similarities and differences in definitions of risk and resilience and adjustment after trauma exposure among these groups, the challenges of recruiting and investigating these groups, and implications for prevention and intervention strategies that maintain the long-term health of those serving the public and de-stigmatize trauma-related responses.

Pathways to Posttraumatic Stress among a Sample of Journalists
(Journalism and Trauma, Prevent, Journalists, M, Global)

Drevo, Susan, MA PhD Student; Newman, Elana, PhD; Brummel, Bradley, PhD; Parker, Kelsey, MA PhD Student
The University of Tulsa, Tulsa, Oklahoma, USA

Although journalists are often exposed to hostile environments and have a high risk of being exposed to direct and indirect potentially traumatic events while serving the public in important ways, they remain a relatively overlooked group in the field of traumatic stress. In a sample of 265 journalists, this study examined whether direct exposure to stressful events on the job (i.e., intimidation, sexual harassment, and moral injury) predicted symptoms of posttraumatic stress beyond that of personal trauma exposure and indirect coverage-related trauma exposure. Personal trauma exposure and coverage-related trauma exposure were entered in Step 1 of a hierarchical regression, significantly explaining 12% of the variance in posttraumatic stress symptoms [F(2, 264) = 17.93, p < .01]. Occupational-related aggression (i.e., intimidation + sexual harassment) and moral injury were entered in Step 2, explaining an additional 25% of the variance [F(4, 264) = 38.27, p < .001]. In the final model, only occupational-related aggression (β = .41, p < .001) and moral injury (β = .28, p < .001) significantly predicted posttraumatic stress symptoms. The results suggest that health risk for journalists extends beyond traumatic news coverage. Implications for journalist trauma and safety education and training will be discussed.

Predictors of Resilience in a 6-year Prospective Longitudinal Cohort Study of New York and Bay Area Police Officers
(Pub Health, Bio Med-Health-Genetic, Adult, M, Industrialized)

Marmar, Charles, MD; Galatzer-Levy, Isaac, PhD; Neylan, Thomas, MD; Yehuda, Rachel, PhD; Henn-Haase, Clare, PsyD; Purchia, Emily, MPH
1New York University School of Medicine, New York, New York, USA
2New York University Langone Medical Center, New York, New York, USA
3San Francisco VA Medical Center and UCSF, San Francisco, California, USA
4J. Peters Veterans Affairs Medical Center; Mount Sinai School of Medicine, Bronx, New York, USA
5New York University Langone Medical Center, Department of Psychiatry, New York, New York, USA

Enhancing the resiliency of police officers is an important public health concern. We conducted a prospective longitudinal study of 297 Police Academy recruits, followed for the first six years of police service. We tested the following predictors of resilience: higher education, higher IQ, attachment patterns, higher cortisol and lower catecholamine responses to a stressful video of critical incidents during academy training, low reactivity to an acoustic startle challenge during training, high sleep quality during training, and high social functioning during the first year of police service. In addition, we explored the role of selective resilience genes. Using LGMM modeling we defined risk and resilience trajectories over the first six years of police service. We will present the predicted trajectories derived from multivariate logistic regression analyses and discuss the potential implications.
Treating PTSD from Traumatic Loss in the Military: The Role of Depression, Guilt, and Anger
(Clin Res, Chronic-Death-Depr, Adult, M, Industrialized)

Jacoby, Vanessa, PhD1; Hale, Willie, PhD2; Dillon, Kirsten, PhD3; Pruksma, Kristi, PhD1; Donandanville, Katherine, PsyD2; Wachen, Jennifer, PhD2; Yarvis, Jeffrey, PhD5; Resick, Patricia, PhD, ABPP5; Hembree, Elizabeth, PhD6; Litz, Brett, PhD5; Mintz, Jim, PhD2; Peterson, Alan, PhD2; Young-McCaughan, Stacey, PhD2

1University of Texas Health Science Center at San Antonio, Ft Hood, Texas, USA
2University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA
3Duke University Medical Center, Durham, North Carolina, USA
4National Center for PTSD / Boston University, Boston, Massachusetts, USA
5U.S. Army, Fort Hood, Texas, USA
6University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
7Boston University, Boston, Massachusetts, USA

Military members represent an occupational group that experiences high stress work environments with high risk for frequent, prolonged trauma exposure. In addition to risk of injury, service members frequently experience the traumatic loss of friends and colleagues. Clinical trials are showing that military populations are less responsive to evidence-based treatments for PTSD than civilians. This study examined the relationship between having an identified index event labeled as traumatic loss and treatment response to Cognitive Processing Therapy. Participants included 333 active duty service members recruited across two randomized clinical trials conducted at Ft. Hood. Results showed service members with traumatic loss identified as their primary trauma recovered from depressive symptoms less than those with different primary events. Less depression recovery suppressed recovery from PTSD symptoms throughout treatment in those with primary traumatic loss, even after controlling for anger, trauma-related guilt, and anxiety. These findings are only significant when traumatic loss is primary, highlighting the unique role of traumatic loss as a primary source of distress. These findings are important with regard to enhancing EBTs to better accommodate military populations. EBTs for PTSD in this population may benefit from additional components to more directly target grief.

Symptoms of PTSD and Disability: Bidirectional Longitudinal Relationship in World Trade Center Disaster Workers
(Pub Health, QoL-Res Meth-Terror, Adult, M, Industrialized)

McAleavey, Andrew, PhD1; Wyka, Katarzyna, PhD1; Difede, JoAnn, PhD2
1Weill Cornell Medical College, New York, New York, USA
2New York Presbyterian Hospital/Weill Medical College of Cornell University, New York, New York, USA

Posttraumatic Stress Disorder (PTSD) has been associated with significant disability burden, including occupational costs roughly equivalent to those associated with Major Depressive Disorder (Kessler, 2000). While PTSD can create disability, there is evidence that continued functional impairments following trauma may reciprocally perpetuate symptoms of PTSD, for instance through mechanisms such as avoidance. In this study we investigate the possibility of bidirectional influence of these symptoms using a large (N = 2,885) dataset of utility workers who served as responders to the World Trade Center attacks of September 11, 2001, and were assessed prospectively afterward. Using self-report symptoms from the PTSD Checklist and the Sheehan Disability Scale, we conducted longitudinal cross-lag panel analysis. Results demonstrate that while both PTSD symptoms and disability scores are relatively stable over time, each significantly predicted the other at later time points (p < .001). This further strengthens the argument that PTSD symptoms prospectively impact disability and simultaneously that persistent disability is a negative indicator for PTSD outcome. It also suggests that successful interventions for people with PTSD and significant functional impairment should focus on both PTSD symptoms and functional limitations.
Using web-based Platforms to Support the Use of Trauma-informed Evidence-based Practices
(Train/Ed/Dis, Commun-Tech-Train/Ed/Dis, Child/Adol, M, Industrialized)

Stein, Bradley, MD PhD
RAND Corporation, Pittsburgh, Pennsylvania, USA

The progress made developing evidence-based treatments (EBTs) for trauma has not been matched by successful implementation in community settings. Few clinicians enter the workforce trained to implement EBTs (Horvitz-Lennon, 2009). Training the extant workforce is challenged by limited infrastructure and resources (Hoagwood, 2001). Training clinicians in EBTs without continued implementation support and consultation has contributed to the low use of EBTs in community settings (Duncan, 2005). Distance learning via websites, may be one promising approach for providing ongoing training and implementation support for EBTs. This approach may be particularly relevant for supporting trauma-related interventions, for which training in or access to implementation assistance should be available rapidly following a traumatic event. Despite its promise, findings regarding the impact of web-based training on implementation have been mixed with some studies showing comparable rates of implementation between online and in-person trainees and others suggesting that web-based training alone may not be optimal for implementing EBTs. This symposium describes three distinct initiatives that aim to train and support clinicians in trauma-informed EBTs using web-based platforms. How web-based platforms can most effectively be woven into training and implementation strategies are discussed.

Using a Web-based Platform to Train Graduate Students in a Trauma-informed Evidence-based Intervention: Lessons from the SSET Website
(Train/Ed/Dis, Tech, N/A, M, Industrialized)

Vona, Pamela, BS¹; Jaycox, Lisa, PhD²; Wong, Marleen, PhD¹; Stein, Bradley, MD PhD³
¹University of Southern California, Los Angeles, California, USA
²RAND Corporation, Arlington, Virginia, USA
³RAND Corporation, Pittsburgh, Pennsylvania, USA

Few clinicians enter the workforce trained to implement evidence-based practices. This presentation describes a pilot study comparing two strategies (in-person vs online) for training graduate social work students in SSET, an evidence-based trauma-informed intervention designed to support adolescents in schools. Using a quasi-randomization approach students (n=77) were assigned to one of three strategies: one-day SSET training in-person training only, online training only, or online training plus in-person. Students completed a survey before, after, and 3-months following training. We conducted bivariate analyses to examine the relationship between training strategy on students’ perceived training experience, confidence and rate of implementation. Immediately following the training, trainees reported increased knowledge with no significant difference found between training strategy. Perceived competence increased significantly with no difference found between in-person and online trainees. At 3-month follow-up, 25% of trainees had begun running SSET groups. Rate of implementation did not vary significantly by training strategy.

A Randomized Implementation Trial of TF-CBT for Adjudicated Teens in Residential Treatment Facilities
(Clin Res, Chronic, Child/Adol, M, Industrialized)

Cohen, Judith, MD
Allegheny General Hospital, Pittsburgh, Pennsylvania, USA

This presentation describes an implementation trial comparing two alternative strategies for implementing an evidence-based trauma treatment for children and adolescents, Trauma-Focused
CBT (TF-CBT) for therapists treating adjudicated teens in 18 residential treatment facilities. Therapists (n=128) were randomized by RTF site to web-based training only (“W”) or W plus live TF-CBT expert training and ongoing consultation calls (“W+L”). Primary outcomes were therapist screening of youth for trauma exposure and symptoms; starting youth in TF-CBT treatment; completing TF-CBT; and completing TF-CBT with fidelity. Youth outcomes with regard to PTSD and depression were also examined. Results indicated superior outcomes for the W+L group with regard to screening, treatment completion and competing TF-CBT with fidelity. Therapist licensure significantly predicted several outcomes. Adjudicated youth who received TF-CBT experienced significant improvement in PTSD and depressive symptoms.

Use of a Web-based, EBT-specific Implementation Tool to Support a Statewide Child Mental Health Training, Treatment and Monitoring Program
(Tech, Tech-Train/Ed/Dis, Prof, M, Industrialized)

Hagele, Dana, MD MPH; Amaya-Jackson, Lisa, MD MPH; DeRosier, Melissa, PhD; Potter, Donna, LCSW; Glienke, Beverly, MA; Fiore, Ashley, MSW, LCSW; Alvord, Ashley, MPH
1UNC-Chapel Hill, Durham, North Carolina, USA
2Duke University School of Medicine, Durham, North Carolina, USA
3C Institute, Durham, North Carolina, USA
4NC Child Treatment Program, Durham, North Carolina, USA

The North Carolina Child Treatment Program (NC CTP) is a statewide implementation platform that supports training, service delivery and monitoring across an array of evidence-based, child mental health treatment models (EBTs). In collaboration with 3C Institute, NC CTP has developed a web-based, clinical implementation tool to support high-fidelity delivery of several EBTs; Trauma-Focused Cognitive Behavioral Therapy was the prototype model. This Evidence-Based Treatment Performance and Outcomes Platform (EBT POP) has subsequently been expanded to include a second EBT module, Parent-Child Interaction Therapy (currently in beta testing phase). EBT POP has the potential to support several critical functions across a child and adult EBT service array, including: standardization of a consultation-driven training platform; rapid dissemination of model adaptations and updates; clinical service delivery support; and case-level and aggregate clinician performance (model fidelity and clinical competence) and outcomes monitoring capacity at the level of the clinician, agency, and broader system.

Virtual Training in Cognitive Processing Therapy-Cognitive for Military/Veteran Behavioral Health Providers
(Res Meth, Cog/Int-Tech-Train/Ed/Dis-Mil/Vets, Prof, M, Industrialized)

Schuyler, Ashley, MPH; Atuel, Hazel; Ursich, Luci, PhD; Berg, Dax, BA; Kintzle, Sara, PhD, LCSW; Castro, Carl, PhD
University of Southern California, Los Angeles, California, USA

Growing rates of behavioral health issues in veterans and service members following the most recent wars, along with a dearth of appropriately trained behavioral health providers (BHPs), have warranted innovative strategies for implementing effective and culturally competent interventions. Virtual and mobile technology offer a potential mechanism for providing evidence-based practice (EBPs) training to BHPs who might not have access otherwise, as well as facilitating their use and sustainability in practice. We report preliminary findings of an ongoing pilot study implementing a virtual training program with mobile application enhancement for Cognitive Processing Therapy-Cognitive (CPT-C). Study participants (n=28) include a national sample of licensed, community-based BHPs with the majority having over 10 years of clinical experience and at least 5 years working with veteran/military clients. Participants engage in weekly online workshops and practice CPT-C skills with live standardized actor patients. Following the workshops, they will implement CPT-C in practice while using a mobile app that allows them to track client sessions, access CPT-C materials, and communicate directly with expert trainers. This virtual training program offers a feasible and sustainable method for implementing EBPs, and greater reach of BHPs that serve veterans and military service members.
Symposium
Saturday, November 12
10:15 AM to 11:30 AM
Dallas A3

Use of Technology to Enhance Sexual Violence Prevention Programs
(Prevent, Clin Res-Rape-Tech, Child/Adol, M, Industrialized)

Rowe, Lorelei, PhD1; Jouriles, Ernest, PhD1; Messman-Moore, Terri, PhD2
1Southern Methodist University, Dallas, Texas, USA
2Miami University, Oxford, Ohio, USA

Teen girls and young women are at high risk for sexual violence victimization, with up to one half confronted with sexual coercion or assault. Efforts to prevent sexual violence have generally been unsuccessful, with a few notable exceptions. These include bystander programs, which focus on increasing bystander intervention in situations with a high likelihood of sexual violence, and programs that provide young women with training and practice in assertive resistance skills. This symposium presents three studies in which technology was used to enhance an aspect of a promising program designed to prevent sexual violence. This aspect involved either the delivery of the program, the method of evaluation, or the program itself. Study 1 describes a bystander program, in which video technology allowed for dissemination of the program throughout an entire high school. Study 2 describes an evaluation of a bystander program, which incorporated virtual-reality simulations to obtain measurements of the quality and effectiveness of bystander intervention. Study 3 describes gains in assertive resistance skills in a virtual-reality enhanced training program, in which high-school females took part in multiple virtual-reality simulations.

Using Video Technology to Help Prevent Adolescent Relationship Violence: A School-based Effectiveness Trial of TakeCARE, a Video Bystander Program
(Clin Res, Prevent-Rape-Train/Ed/Dis, Child/Adol, M, Industrialized)

Sargent, Kelli, BA1; Rosenfield, David, PhD1; McDonald, Renee, PhD1; Jouriles, Ernest, PhD1; Messman-Moore, Terri, PhD2
1Southern Methodist University, Dallas, Texas, USA
2Miami University, Oxford, Ohio, USA

National estimates indicate that approximately 40% of teens experience physical or sexual dating relationship violence (Halpern, Spriggs, Martin, & Kupper, 2009). Bystander prevention programs teach adolescents to notice and respond when they witness violence or risky situations that may escalate to violence. Increasing adolescents’ responsive bystander behavior in such situations is theorized to reduce rates of relationship violence across an entire school. Most existing programs are administered in a small-group format, by trained facilitators, which can be costly, time-consuming, and may potentially lack treatment fidelity. Video technology offers advantages in this regard, since every student receives the same content and length of treatment. Furthermore, a video format affords ease of broad dissemination across entire campuses. The present study evaluates the effectiveness of TakeCARE, a brief video bystander program, on adolescents’ bystander behavior, as administered in classroom settings by district counseling staff. Students (N = 921) at an urban, predominantly-minority high school were randomized at the classroom level to view TakeCARE or participate in another activity. Multi-level models indicated that students who viewed TakeCARE reported more bystander behavior at 3-month follow-up than control students.
Virtual Reality Technology in Bystander Program Evaluation - Evidence Among College Students
(Clin Res, Prevent-Rape-Tech-Train/Ed/Dis, Lifespan, M, Industrialized)

Krauss, Alison, PhD Student; Sargent, Kelli, BA; Bridges, Kate, BA; McDonald, Renee, PhD; Jouriles, Ernest, PhD
Southern Methodist University, Dallas, Texas, USA

Bystander interventions are being implemented on college campuses across the US as part of an effort to reduce sexual and dating violence among college students. Although research suggests that such interventions can increase student bystander behavior, almost all evaluations of bystander interventions rely exclusively on student self-reports. To circumvent this limitation, an innovative virtual-reality (VR) paradigm was developed and utilized to evaluate effects of TakeCARE, a brief video bystander program shown to be effective among college students in prior research (Jouriles et al., 2015). VR simulations were developed to present participants with opportunities to intervene in situations to prevent dating violence. Incoming first-year students (N = 298) at a midsized Southwestern university were randomized to view TakeCARE or to a no-treatment control condition, and were assessed 2-3 months later using VR. Results indicate that students who viewed TakeCARE were more effective in intervening in the VR-simulations of situations that could lead to dating or sexual violence, compared to students in the control condition.

Virtual-reality Enhanced Assertiveness Training Program for Teen Girls: Who Benefits the Most?
(Prevent, Prevent-Rape, Child/Adol, M, N/A)

Boyers, Grace, PhD Student; Rowe, Lorelei, PhD; McDonald, Renee, PhD; Jouriles, Ernest, PhD
Southern Methodist University, Dallas, Texas, USA

Teen girls are highly vulnerable to sexual violence victimization (U.S. Department of Justice, 2006), but assertive resistance is associated with escape from dangerous situations (Ullman, 2007). My Voice, My Choice (MVMC), a single-session, 90-minute program that teaches young women assertive resistance skills and encourages them to practice skills in realistic virtual settings, reduces sexual victimization rates, relative to a wait-list control (Simpson Rowe, Jouriles, & McDonald, 2015). MVMC is hypothesized to achieve this aim by increasing teens’ use of assertive resistance skills. However, it is unclear if MVMC benefits those most in need of assertiveness training, as compared to those who already are confident in their sexual assertiveness. We examined predictors of improvement in assertiveness over the course of three practice role-plays administered during MVMC. Participants were teen girls from an inner-city, predominantly minority high school who completed the program (n = 47). Role-plays were video-recorded and coded for assertive resistance skill enactment. Results indicated that the teens who reported the lowest levels of sexual assertiveness prior to the intervention showed the greatest improvement.

Symposium
Saturday, November 12
10:15 AM to 11:30 AM
Dallas D3

Innovative Assessment and Treatment Approaches to Post-conflict Mental Health in Low and Middle Income Countries
(Tech, Assess Dx-Comm/Int-Pub Health-Tech, Adult, A, E Asia & Pac)

Tay, Alvin, PhD
University of New South Wales, Sydney, New South Wales, Australia

The symposium comprises four presentations from clinician-researchers describing innovative assessment and treatment approaches to trauma-related conditions amongst conflict-affected and refugee persons residing in low income countries. The symposium will commence with data from the largest cohort studies in the field conducted in Timor-Leste (n=1102) and Sri Lanka (n=4486) tracing the trajectories of symptoms of post-traumatic stress disorder, depression, and anxiety disorder over time. A controlled trial of an adapted trauma-focused Cognitive Behavioural Therapy designed to treat symptoms of explosive anger and trauma-related reactions in Timor-Leste will be reported. The final presentation will describe the Electronic Refugee
Mental Health Assessment Tool (ER-MHAT) designed specifically for lay field workers to collect complex survey data in epidemiological mental health studies in low and middle income countries (LMICs).

Peritraumatic Reaction Trajectories during War: A Proximal Intensive Assessment (Pia) Study of Gender, Mental Health Status and Exposure (Assess Dx, Chronic-Res Meth-Civil/War-Gender, Adult, A, Industrialized)

Gelkopf, Marc, PhD; Greene, Talya, MPH, PhD; Lapid, Liron, MA; Greenapple, Shulamit, PhD Candidate

1University of Haifa, Haifa, Israel
2Haifa University, Haifa, Israel

We assessed the development of symptom trajectories during war and inquired as to exposure impact, gender and severe mental illness (SMI). 181 highly exposed individuals with and without SMI participated. A 30-day twice-daily smartphone-based PIA during the 2014 Israel-Gaza war assessed symptoms, sense of threat, negative emotions and cognitions, and siren exposure during two periods varying in threat levels. Piecewise Growth Curve Modeling were performed. We found different trajectories for most variables, gender and SMI status. Women were more reactive at study onset but reduced their reactivity level at a faster pace vs males, reaching lower symptom levels. Reactivity in women's trajectories was characterized by arousal, negative emotionality, sense of threat and reactivity to siren exposure. No-SMI men had stable trajectories followed by a significant reduction during the 'return to routine' lower level intensity period of the war. Individuals with SMI had higher reactivity levels at study onset, but while women with SMI improved over time, men with SMI worsened. SMI reactivity was characterized by negative cognitions, reexperiencing and avoidance. Acute reactions during prolonged exposure to war are variable, dynamic and affected by exposure context. Symptoms, emotions and cognitions develop differentially over time and are affected by gender and mental health status.

Tracing Trajectories of Trauma-related Symptoms in Two Large Cohort Studies Conducted in Post-conflict Timor-Leste and Sri Lanka (Clin Res, Clin Res-Civil/War, Adult, A, E Asia & Pac)

Tay, Alvin, PhD; Jayasuriya, Rohan, MD; Jayasuriya, Dinuk, PhD; Silove, Derrick, MD PhD
1University of New South Wales, Sydney, New South Wales, Australia
2Australian National University, Sydney, New South Wales, Australia

Few longitudinal studies have traced the course of trauma-related symptoms over time in low and middle income countries exposed to mass conflict and adversity. Most past studies are restricted to small samples and cross-sectional designs. This study applied latent transition analysis to two large cohort studies conducted in conflict-affected Timor-Leste (n=1022) and Sri Lanka (n=4486) to identify subpopulations showing distinct symptom trajectories and examine the associations with trauma exposure, social factors, and a sense of injustice. A whole-of-household survey was conducted in 2004 and 2010 in Dili, the capital of Timor-Leste and 1022 adults were followed up over six years. Culturally adapted measures were applied to assess traumatic events (TEs), ongoing adversity, a sense of injustice, post-traumatic stress symptoms and psychological distress. In the Sri Lankan nation-wide survey (n=20632) undertaken across 25 districts, 4486 adults were followed up over 12 months (2014-2015). Measures were applied to assess TE exposure and a wide range of social factors. Longitudinal data from both surveys and the associations of trauma-related symptom trajectories with the key predictors (trauma exposure, social factors, and adversity) amongst the Timorese and Sri Lankan cohorts will be reported.
A Wait-list Controlled Trial of a Trauma-focused CBT Treatment for Intermittent Explosive Disorder in Post-conflict Timor Leste
(Clin Res, Aggress-Clin Res-Torture-Civil/War, Adult, A, E Asia & Pac)

Hewage, Kalhari, DPsych(Clin)1; Steel, Zachary, PhD2; Mohsin, Mohammed, PhD, MSc1; Tay, Alvin, PhD1; Silove, Derrick, MD PhD1
1University of New South Wales, Sydney, New South Wales, Australia
2University of New South Wales, Randwick, New South Wales, Australia

There is growing interest in developing and testing interventions for pathological forms of anger. As yet, there is little evidence for the effectiveness of pharmacological interventions; in contrast, cognitive behavioural therapy (CBT) has been shown to be effective in treating various forms of pathological anger. Only one randomised clinical trial, conducted in USA, has assessed a psychological intervention specifically designed to address IED (McCloskey et al., 2008). We report a wait-list controlled study testing a culturally-adapted, trauma-focused, CBT treatment for IED and related dimensions of anger (TF-CBT-anger) conducted in post-conflict Timor-Leste. The sample (N=78) comprised Timorese (women=49; men=29), 18-65 years, meeting DSM-IV criteria for IED. Equal numbers (39 in each arm) were randomized to the treatment group (TG) and waitlist (WL) groups, the TG receiving seven 120 minute sessions of individual psychotherapy over 4 weeks. Assessments were made at one week prior to and post-treatment, and at one-month follow up. Primary measures were IED assessed using a community based measure of explosive anger and dimensions of the State-Trait Anger Expression Inventory (STAXI-2). Secondary measures included K10 and the Harvard Trauma Questionnaire (HTQ). Outcome data from the first controlled trial of IED and trauma-related conditions in the field.

The Electronic Refugee Mental Health Assessment Tool (ER-MHAT): a Novel Tablet Based Platform for Collecting Complex Survey Data in Epidemiological Mental Health Surveys in Low-income Countries
(Tech, Assess Dx-Pub Health-Tech, Adult, A, E Asia & Pac)

Tay, Alvin, PhD1; Dueter, Dominik, MS2; Reichersdoerfer, Marcel, MS2
1University of New South Wales, Sydney, New South Wales, Australia
2University of Ulm, Ulm, Baden-Wurtemberg, Germany

Tablet devices have been increasingly applied as a substitute to pen-and-paper questionnaires across psychiatric epidemiological surveys. This study describes the rationale, development, and specifications of the Electronic Refugee Mental Health Assessment Tool (ER-MHAT) designed specifically for lay interviewers to collect complex data in mental health surveys amongst conflict-affected populations in low-income countries. Through a parsing process of survey items specified using a XML schema, the program automatically converts these into survey related user interface elements for data collection. A key feature of the ER-MHAT is that it allows for survey data to be collected in a wide range of languages supported by iOS and Android based tablet devices, and conditional logic and algorithms can be applied to relevant survey measures. The XML based platform allows for a large number of survey modules to be deployed across multiple devices simultaneously via a central management system. The additional features include the integration of voice-over output, GPS location identification, and extensive management of survey measures via cloud computing. Following a survey interview, responses can be reviewed on the tablet device prior to being exported to a remote centralized server. The data can be aggregated and exported as CSV files via web-based frontend for further analysis.
Symposium
Saturday, November 12
10:15 AM to 11:30 AM
San Antonio Ballroom A

Evaluating the Population Impact of an Enhanced Collaborative Care Intervention for PTSD and Depression: Examining Reach, Effectiveness, and Cost Effectiveness across the Military Health System (MHS)
(Clin Res, Clin Res-Depr-Sub/Abuse-Care, Adult, M, Industrialized)

Belsher, Bradley, PhD1; Zatzick, Douglas, MD2
1Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury, Silver Spring, Maryland, USA
2University of Washington/Harborview Medical Center, Seattle, Washington, USA

The population impact of an intervention depends on the proportion of the full population at risk who receive the intervention and how large a reduction in risk occurs among those who receive it. Systems-level “collaborative care” is an established method of increasing the reach, quality and outcomes of mental health care in a variety of settings. Recently, a multi-site (6 large Army Installations; 18 primary care clinics) randomized effectiveness trial compared an enhanced collaborative care intervention for the treatment of PTSD and Depression to a widely practiced and locally implemented primary care collaborative care model used in the U.S. Army health system (UCPC, Usual Collaborative Primary Care). The effectiveness design, aimed to equip leaders and policy makers with evidence to guide decision-making, sought to yield maximally generalizable findings based on reach, impact, and relevant cost-effectiveness information. Using the REAIM framework to conceptualize the reach and effectiveness of the enhanced collaborative care intervention, the following presentations discuss the overall population impact of the intervention on PTSD and depression, the reach and implications of using a centralized team to promote specific practice behaviors, and the cost-effectiveness of the treatment relative to usual collaborative care.

PTSD, Depression and Suicidal Ideation in a Veteran Cohort: Results from the Mind Your Heart Study
(Clin Res, Depr-Mil/Vets, Adult, M, Industrialized)

Arenson, Melanie, BS1; Neylan, Thomas, MD2; Whooley, Mary, MD2; Maguen, Shira, PhD2; Cohen, Beth, MD, MAS2
1UCSF/SFVAMC, San Francisco, California, USA
2San Francisco VA Medical Center and UCSF, San Francisco, California, USA

Veterans with PTSD or depression are at increased risk for suicidal ideation (SI). However, few studies have examined the risk of SI for those with comorbid PTSD and depression; those completed focused on a single era or branch and produced conflicting findings. We interviewed 729 Veterans using the CAPS to assess PTSD and the PHQ-9 to measure depression/SI. Veterans represented varied eras and branches of service. Chi-squared tests showed Veterans with comorbid PTSD/depression were significantly more likely to endorse SI (48% with comorbid PTSD/depression endorsed SI, 30% with depression alone, 9% with PTSD alone, and 2% with neither). Using logistic regression, this association remained significant even after controlling for demographics and PTSD/depression severity scores. Social support, anger, hostility, optimism, and anxiety were independently associated with SI. However, in fully adjusted models, they did not explain the elevated risk in the comorbid group compared to those with neither PTSD/Depression (OR=11.4; p<0.001) and those with depression alone (OR=4.5; p=0.01). Marital status, combat exposure, alcohol/drug use, physical function, positive/negative affect, and emotional regulation were not associated with SI. Veterans with comorbid PTSD/depression represent a highly vulnerable group who may need more intensive monitoring and treatment to reduce risk of suicide.
The Cost-Effectiveness of a Collaborative Care Approach to Treating Depression and Post-Traumatic Stress Disorder in Military Personnel
(Pub Health, Clin Res-Clinical Practice-Care, Adult, M, Industrialized)
Lavelle, Tara, PhD1; Jaycox, Lisa, PhD2; Kommareddi, Mallika, MPH3; Engel, Charles, MD, MPH4; Belsher, Bradley, PhD5; Freed, Michael, PhD, EMT-B6
1Tufts University, Boston, Massachusetts, USA
2RAND Corporation, Arlington, Virginia, USA
3RAND, Santa Monica, California, USA
4Department of Defense, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, Silver Spring, Maryland, USA
5National Institute of Mental Health/NIH, Bethesda, Maryland, USA
Estimating the value of a new practice is critical for policy makers. Cost-effectiveness takes into account both the intervention costs and treatment effectiveness to determine how efficiently the intervention achieves desirable outcomes as compared to usual care. We evaluated the cost effectiveness of treating patients with PTSD and depression using an enhanced collaborative care intervention as compared to usual collaborative care (UC), in the Military Health System (MHS). Quality of life, depression, and PTSD symptoms were assessed at baseline, 3, 6 and 12-months follow-up. 629 participants (320 intervention 309 UC) were included in the economic evaluation. Patients randomized to the enhanced intervention gained approximately 0.02 quality-adjusted life years (QALYs; 95% CI: -0.001, 0.03) relative to patients in UC. The intervention arm had $1,754 significantly higher intervention costs over a 12-month period; total 1-year costs were $987 (95% CI: -$3,056, $5,030) higher versus UC. The enhanced intervention was estimated to cost $49,346 per QALY gained compared to UC over 12-months. Economic evidence supports the use of the enhanced collaborative care model for treating PTSD and depression in the MHS and findings are discussed in terms of population impact.

Population-Based Impact of an Enhanced Collaborative Care Intervention in the Military Health System (MHS)
(Clin Res, Clin Res-Depr-Care, Adult, M, Industrialized)
Belsher, Bradley, PhD1; Engel, Charles, MD, MPh2; Novak, Laura, BS3; Evatt, Daniel, PhD4; Liu, Xian, PhD5; Freed, Michael, PhD, EMT-B6; Jaycox, Lisa, PhD5; Zatzick, Douglas, MD6; Bray, Robert, PhD7
1Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury, Silver Spring, Maryland, USA
2RAND Corporation, Boston, Massachusetts, USA
3Department of Defense, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, Silver Spring, Maryland, USA
4National Institute of Mental Health/NIH, Bethesda, Maryland, USA
5National Institute of Mental Health/NIH, Bethesda, Maryland, USA
6University of Washington/ Harborview Medical Center, Seattle, Washington, USA
7RTI International, Research Triangle Park, North Carolina, USA

The STEPS UP randomized, effectiveness trial aimed to improve the generalizability and population impact of the trial by broadening the inclusion criteria and limiting the exclusion criteria. With a population based approach in mind, we sought to evaluate the impact of the intervention across the sample using a single construct to represent changes on overall diagnostic status that took into account both PTSD and Major Depression symptoms. A mixed-effects binary logit approach was applied to estimate the longitudinal trajectory of diagnosis status across the trial period (4 time points across 1 year) between the treatment arms. Participants in STEPS UP had a significantly greater probability of being diagnostic-free at the end of the trial relative to Usual Collaborative Primary Care, with a 7 percent difference in diagnostic status by the end of the trial. Using the REAIM framework for specifying population impact, and referencing MHS administrative data to determine intervention reach, the presentation examines the projected population impact of the enhanced, collaborative care intervention for PTSD and depression.
Alcohol Misuse and Co-Occurring PTSD in Military Primary Care: Identification and Population Impact
(Clin Res, Clin Res-Depr-Sub/Abuse-Care, Adult, M, Industrialized)

Evatt, Daniel, PhD1; Belsher, Bradley, PhD1; Beech, Erin, MA2; Stewart, Lindsay, BA2; Novak, Laura, BS1; Liu, Xian, PhD2; Jaycox, Lisa, PhD3; Bray, Robert, PhD4; Freed, Michael, PhD, EMT-B5; Engel, Charles, MD, MPH6
1Defense Centers of Excellence for Psychological Health & Traumatic Brain Injury, Silver Spring, Maryland, USA
2Department of Defense, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, Silver Spring, Maryland, USA
3RAND Corporation, Arlington, Virginia, USA
4RTI International, Research Triangle Park, North Carolina, USA
5National Institute of Mental Health/NIH, Bethesda, Maryland, USA
6RAND Corporation, Boston, Massachusetts, USA

Alcohol misuse often co-occurs with PTSD and depression among military service members, yet may go undetected for a variety of reasons. Data from the multisite randomized controlled trial of an enhanced collaborative care intervention (STEPS UP) is presented to examine how an enhanced care model can improve alcohol misuse screening rates of service members with PTSD or depression. The centralized component of the enhanced collaborative care model facilitated a flexible implementation strategy and was able to increase provider screening of alcohol misuse, which subsequently resulted in a greater proportion of participants with alcohol misuse being identified as compared to the usual care arm. The relevance of this observation is discussed in context of findings that demonstrate the impact of alcohol misuse on PTSD treatment. These findings are then extrapolated to the larger target population to examine the increased proportion of service members that would be identified with alcohol misuse based on implementation of more consistent alcohol screening strategies. The positive effects of enhanced collaborative care are discussed in context of the unique features, policies, and barriers of identifying and treating alcohol misuse in the military.

Symposium
Saturday, November 12
10:15 AM to 11:30 AM
San Antonio Ballroom B

Innovative Approaches to Improving PTSD Treatment: Using Technology to Aid Public Health
(Train/Ed/Dis, Comm/Int-Tech-Train/Ed/Dis, Adult, I, Industrialized)

Bernardy, Nancy, PhD1; Norman, Sonya, PhD2
1National Center for PTSD, White River Junction, Vermont, USA
2National Center for PTSD, San Diego, California, USA

A literature indicates that our ability to manage posttraumatic stress disorder (PTSD) will require use of innovative technology. This symposium includes speakers from the Department of Veterans Affairs (VA) to present on the use of technology in the delivery of PTSD care. The 1st speaker will present data from a project that focuses on improving care for rural Veterans in New England using video teleconferencing (VTel) in an academic detailing intervention to improve PTSD prescribing practices. The 2nd speaker will present findings from a survey of community-based providers regarding their preferences for training in guideline-recommended treatments for PTSD, including use of online and teleconferencing resources. The 3rd speaker will present on newly developed resources that use VTel to disseminate evidence based treatment for PTSD through direct consultation with VA clinicians practicing in rural Texas. The 4th speaker will present a primary care/mental health integrated care model designed to extend the reach of evidence based PTSD pharmacotherapy in community based clinics using online provider training and a clinical decision support tool embedded in the electronic medical record. Dr. Sonya Norman will reflect on the broader implications of the presentations and thoughts about the use of technology posed in this symposium.
The Use of Technology to Improve PTSD Care in Rural Areas
(Train/Ed/Dis, Clin Res-Comm/Int-Train/Ed/Dis, Adult, I, Industrialized)

Bernardy, Nancy, PhD1; Sherrieb, Kathleen, MD, DrPH2; Montano, Macgregor, PharmD3
1National Center for PTSD, White River Junction, Vermont, USA
2National Center for PTSD/ Dartmouth Medical School, White River Junction, Vermont, USA
3VA National Center for PTSD/White River Junction VA Medical Center, White River Junction, Vermont, USA

Research examining social differences has shown higher rates of inappropriate prescribing in Veterans with PTSD in rural areas. Veterans treated at rural Department of Veterans Affairs (VA) facilities are more likely to receive benzodiazepines (BZD) - medications specifically not recommended for PTSD; and are more frequently prescribed multiple sedatives - a practice associated with significant adverse effects. More frequent BZD use occurs at both rural VA outpatient clinics and VA medical centers. A VA organizational aim is to provide guideline-concordant care across facilities. Given this, a way to improve would be to focus on rural health provider education and training. A service was developed using academic detailing (AD) visits to rural clinicians by a mental health pharmacist. AD interactions impart individualized, evidence-based education and differ from organizational enforcement because they focus on individual provider needs, barriers and motivations. The detailer provides clinical topic presentations on PTSD and associated conditions, designs system improvements such as an E-consult and streamlined medication ordering, and provides individual case review - in person and by video teleconferencing. Ultimately, the goal is to reduce disparity in care quality between rural and urban VAs and to improve PTSD care delivered to Veterans in Northern New England.

Education Preferences among Community Mental Health and Primary Care Providers Treating PTSD
(Tech, Commun-Train/Ed/Dis-Mil/Vets, Prof, I, Industrialized)

Finley, Erin, PhD1; Noel, Polly, PhD2; Haro, Elizabeth, BS1; Bernardy, Nancy, PhD3; Lee, Shuko, MS2; Garcia, Hector, PsyD2; Pugh, Mary Jo, PhD, RN2; Pugh, Jacqueline, MD2
1University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA
2South Texas Veterans Healthcare System, San Antonio, Texas, USA
3National Center for PTSD, White River Junction, Vermont, USA

Although recent healthcare policies have expanded community-based care options for Veterans with PTSD beyond the Department of Veterans Affairs (VA), guideline-recommended treatments (GRTs) for PTSD remain a gap in care outside VA. To inform program development, we surveyed community mental health and primary care providers across Texas to identify preferences for training/education. Surveys were completed by 581 non-VA providers (10.1% response rate), including 118 prescribers (primary care/family medicine/psychiatry physicians and nurse practitioners) and 463 psychotherapists (psychologists and licensed professional counselors, social workers, and marriage/family therapists). Most (88% prescribers, 68% psychotherapists) reported treating Veterans with PTSD; half (53% prescribers, 51% psychotherapists) were aware of PTSD clinical practice guidelines. Providers reported interest in learning about GRTs for PTSD (82% prescribers, 72% psychotherapists), preferring web-based trainings and in-person conferences/workshops, and identified convenience, cost, and ability to obtain CME or CE credits as factors influencing use of training resources. Providers serving Veterans with PTSD in community settings are interested in learning GRTs for PTSD; however, given providers’ diversity in location, expertise, and prior training, a range of training technologies is likely to be required.
Using Videoconferencing to Provide PTSD Consultation across Rural Communities
(Train/Ed/Dis, Train/Ed/Dis-Self-Care-Mil/Vets, Prof, I, Industrialized)

Jeffreys, Matthew, MD\textsuperscript{1}; Grogan, Jessica, PhD\textsuperscript{2}; McKee, Todd, MD\textsuperscript{3}; Friedman, Matthew, MD, PhD\textsuperscript{4}; Norman, Sonya, PhD\textsuperscript{5}
\textsuperscript{1}Department of Veteran Affairs Medical Center, San Antonio, Texas, USA
\textsuperscript{2}VA, Harlington, Texas, USA
\textsuperscript{3}National Center for PTSD, White River Junction, Vermont, USA
\textsuperscript{4}National Center for PTSD, Executive Division, White River Junction, Vermont, USA
\textsuperscript{5}National Center for PTSD, San Diego, California, USA

Mental health providers in rural settings often lack the resources and collegial support available to those in urban areas. This presentation describes the use of video teleconferencing (VTel) to disseminate evidence based treatment for posttraumatic stress disorder (PTSD) through direct consultation with VA clinicians practicing in the Rio Grande Valley of Texas. Beginning in April 2014, mental health providers across 5 widely separated outpatient treatment sites initiated monthly consultation through VTel with 2 expert consultants (a psychiatrist in Vermont and a psychologist in California) from the National Center for PTSD (NCPTSD). Follow up consultation between the individual providers and the NCPTSD team was available through VTel, telephonically, or through the internet. Consultation questions were in regard to diagnosis, evidence based psychotherapy and pharmacotherapy, co-morbid conditions, and other topics. Data collection about provider satisfaction with the consultation process is underway and will be presented. This presentation will discuss the process for building and maintaining PTSD consultation in rural areas, the dissemination of the VA/DoD Clinical Practice Guideline (CPG) for PTSD, supporting clinicians in rural areas, and barriers to implementation.

Engaging Primary Care Providers in VA Community Clinics to Provide Evidence Based Pharmacotherapy for PTSD
(Commun, Clinical Practice-Tech-Train/Ed/Dis-Mil/Vets, Adult, I, Industrialized)

Spoont, Michele, PhD\textsuperscript{1}; Bass, Deanna, MD\textsuperscript{2}; Osei-Bonsu, Princess, PhD, MPH\textsuperscript{3}; O’Dougherty, Maureen, PhD\textsuperscript{4}; Hagedorn, Hildi, PhD\textsuperscript{3}; Friedman, Matthew, MD, PhD\textsuperscript{5}; Felker, Bradford, MD\textsuperscript{6}; Post, Edward, MD PhD\textsuperscript{7}
\textsuperscript{1}National Center for PTSD, U.S. Department/Veterans Affairs, Minneapolis, Minnesota, USA
\textsuperscript{2}University of Minnesota, Minneapolis, Minnesota, USA
\textsuperscript{3}Center for Chronic Disease Outcomes Research, Minneapolis VA Medical Center, Minneapolis, Minnesota, USA
\textsuperscript{4}Metropolitan State University, St Paul, Minnesota, USA
\textsuperscript{5}National Center for PTSD, Executive Division, White River Junction, Vermont, USA
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\textsuperscript{7}VA Office of Primary Care Services, Washington, District of Columbia, USA

Integration of mental health services into primary care settings expands mental health service access, particularly in non-urban community settings. The Department of Veterans Affairs (VA) has system wide integration, and has placed psychologists, social workers and care managers directly into primary care clinics. Because of limited availability, most community clinics have psychiatrists only 1-2 days per week; smaller and rural clinics have none at all. Accordingly, many patients needing pharmacotherapy for PTSD are referred out to mental health clinics, and a significant portion do not follow-through. To increase access to PTSD pharmacotherapy for Veterans in community clinics, we developed an intervention designed to increase provision of evidence-based PTSD pharmacotherapy by primary care providers. The intervention includes leadership engagement, external facilitation, local champions, online CME PTSD pharmacotherapy training, embedding of a PTSD pharmacotherapy provider decision support tool into the VA electronic medical record (EMR), and designated psychiatrist accessibility by EMR e-consults. Qualitative interviews with primary care staff revealed that...
providers’ comfort with PTSD and PTSD pharmacotherapy, juggling competing demands, and patient factors can impact pharmacotherapy delivery. Barriers and facilitators to program implementation are also discussed.

Symposium
Saturday, November 12
10:15 AM to 11:30 AM
Houston Ballroom A

The social self: Contributions of Disruptions in Emotion and Physiology to Relational Processes in Trauma
(Clin Res, Affect/Int-Complex-Fam/Int, Lifespan, I, N/A)

D’Andrea, Wendy, PhD
New School for Social Research, New York, New York, USA

Trauma has a well-documented capacity for disrupting relationships, particularly when it begins early in life and occurs in relational contexts. Here, the presenters explore emotional and physiological mechanisms associated with social disruptions, as well as means of improving social functioning in the aftermath of trauma. In particular, D’Andrea will present on the role of physiology and body awareness in social cognition and empathy. Rabellino will present neuroimaging data on processing of subliminal and supraliminal face stimuli. MacKinnon will present on alterations in moral-relational reasoning associated with early-life trauma exposure and the relationship between moral reasoning and posttraumatic guilt. Lastly, Steele will demonstrate how an attachment-focused intervention helps traumatized mothers to improve their sensitivity in response to their children.

Fighting for Feeling: Body Awareness Mediates the Relationship between Trauma Exposure and Interpersonal Problems
(Bio Med, Affect/Int-Complex, Lifespan, I, Industrialized)

D’Andrea, Wendy, PhD; Van Cleave, Treva, MA; Fehertoi, Nicholas, MA; Freed, Steven, MA PhD Student; DePierro, Jonathan, PhD; Nieves, Nadia, MA
New School for Social Research, New York, New York, USA

Emerging theory on interpersonal processes such as social cognition and empathy suggest a central role of autonomic arousal and body awareness (i.e., interoception). Notably, arousal, interoception, and relational processes all may be interrupted in the aftermath of trauma. This presentation includes data from studies demonstrating that interpersonal processes in trauma may become altered due to changes in arousal and interoception. In study 1, physiological arousal and social cognition (using Reading the Mind in the Eyes task) were measured. Trauma exposure was related to lower vagal tone, which was in turn related to worse social cognition performance (N = 54, r = -.44, p < .01). In study 2 (N = 57), interoceptive measures (as measured by the heartbeat detection task and rubber hand illusion) were related to interpersonal problems (as measured by the Inventory of Interpersonal Problems, r = .29 and .31, respectively; p < .05). Interpersonal problems (r = .30, p < .05) and poor interception on the rubber hand illusion (r = .29, p < .05) were related to cumulative trauma exposure. Interoceptive awareness mediated the relationship between trauma exposure and interpersonal problems, suggesting that low awareness of physiological arousal may significantly contribute to the interpersonal problems associated with trauma exposure.
Facing Fear: Autonomic and Neural Activity in PTSD during Conscious and Subconscious Processing of Facial Fear Expressions

Rabellino, Daniela, PhD1; D’Andrea, Wendy, PhD2; Siegle, Greg, PhD3; Frewen, Paul, PhD3; Densmore, Maria, BSC2; Theberge, Jean, PhD2; Lanius, Ruth, MD, PhD1
1University of Western Ontario, London, Ontario, Canada
2New School for Social Research, New York, New York, USA
3University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, USA
4University of Western Ontario, Depts of Psychiatry and Psychology, London, Ontario, Canada
5Lawson Health Research Institute, London, Ontario, Canada

Background. Posttraumatic stress disorder (PTSD) is characterized by alterations in arousal and physiological reactions to triggering cues (DSM-5, 2013). Previous research in PTSD has shown altered physiological and neural responses during conscious or subconscious presentation of fearful faces (e.g., Bryant et al., 2008; Felmingham et al., 2008; Shin et al., 2005; Williams et al., 2004, 2006). Methods. Here, we present a fMRI study that examines the neural activity associated with the individual high-frequency heart rate variability, an indirect measure of parasympathetic modulation of the heart, in a PTSD (n = 18) as compared to a non-trauma control (n = 18) group, during subconscious and conscious processing of fearful (vs. neutral) faces. Results. In PTSD as compared to controls, we demonstrated increased activation of the anterior/mid insula during subconscious processing of fearful faces, and decreased activation of the superior temporal gyrus (STG) and premotor thalamus during conscious processing of fearful faces (all results p < .05 FWE- small volume corrected). Conclusions. Our findings suggest that impaired parasympathetic modulation of autonomic arousal in PTSD is related to altered neural activation of areas involved in the central autonomic network (insula; Benarroch, 1997), motor readiness (thalamus), and mentalizing processes (STG; Gallagher & Frith, 2003).

Moral Reasoning in PTSD: Longstanding Effects of Childhood Trauma Exposure and the Impact of Moral Injury
(Clin Res, Chronic-Mil/Vets, Adult, I, N/A)

McKinnon, Margaret, PhD1; Nazarov, Anthony, PhD1; Frewen, Paul, PhD2; Jetly, Rakesh, MD, FRCP(C); Wright, David, MD4; Hood, Heather, PhD, Cpsych5; O’Connor, Charlene, PhD, Cpsych6; Moniz, Sandy, PhD, Cpsych6; Lanius, Ruth, MD, PhD1
1McMaster University, Hamilton, Ontario, Canada
2University of Western Ontario, London, Ontario, Canada
3Canadian Forces Health Services Group Headquarters, Ottawa, Ontario, Canada
4Homewood Health Centre, Guelph, Ontario, Canada
5Homewood Health Centre, Hamilton, Ontario, Canada

Preliminary evidence suggests that relative to healthy controls, patients with post-traumatic stress disorder (PTSD) show alterations in performance on several inter-related social cognitive domains. Few studies, however, have explored moral reasoning performance. In one study, we examined moral reasoning in women with PTSD stemming from childhood trauma. Relative to controls, women with PTSD were less likely to carry out utilitarian actions in personal, sacrificial moral dilemmas, a choice driven primarily by concern about intrapersonal disapproval. Critically, this concern was related to higher symptoms of guilt in the PTSD group. Women with PTSD also demonstrated less altruistic moral reasoning, a pattern of response primarily associated with decreased empathic role-taking for beneficiaries. Taken together, these results suggest that childhood trauma may continue to impact moral choices made into adulthood. We are also exploring the relation between moral injury and symptom severity, emotion regulation and functioning among patients admitted to hospital for treatment of PTSD related to military trauma. The capacity to engage in moral reasoning underpins human relations; disruptions to this ability, along with violations of one’s sense of moral identity, have the capacity to disrupt social functioning among individuals with PTSD.
On the Effectiveness of an Attachment- and Trauma-informed Intervention Aimed at Improving the Quality of the Mother-toddler Relationship: Group Attachment Based Intervention (GABI)
(Clin Res, CPA-Dev/Int-Fam/Int-Intergen, Lifespan, I, Industrialized)

Steele, Miriam, PhD
New School for Social Research, New York, New York, USA

This talk reports on a randomized controlled treatment (RCT) trial comparing GABI to Treatment as Usual (parenting classes) for 70 mothers and their toddler-aged children (35 in each group). Adverse childhood experience (ACE) burdens of mothers are high with 77% having 4 or more ACEs. Families are referred by ACS Preventive Services. Five-minutes of free-play sessions were video-filmed at baseline and end-of-treatment. The filmed interactions were coded using Feldman’s (1999) Coding Interactive Behavior (CIB) criteria, applied by trained PhD students, masked to study group, and whether the video was from baseline or end-of-treatment. The CIB includes 44 dimensions focusing on Maternal Behavior, Child Behavior and Dyadic Behavior. For each of these three domains, the GABI group increased significantly compared to the STEP control group who either did not change or actually became significantly less adaptive or less functional. A maternal sensitivity aggregate score comprised the average of 12 scales (alpha=.86 for GABI, and .82 for STEP) and thus provides a robust global estimate of the way mothers in GABI increased significantly, while STEP / control group mothers decreased significantly in sensitivity (Cohen’s D = .58 for GABI, and -.70 for STEP). Conclusion: GABI targets and improves maternal sensitivity

Panel Presentation
Saturday, November 12
10:15 AM to 11:30 AM
Dallas D2

Research on Implementation of CPT and PE in the U.S. Veterans Health Administration: Synthesis of Findings from 19 Studies
(Train/Ed/Dis, Clin Res-Clinical Practice-Mil/Vets, Adult, M, Industrialized)

Rosen, Craig, PhD; Matthieu, Monica, PhD LCSW CTS; Cook, Joan, PhD; Wiltsey Stirman, Shannon, PhD
1VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA
2Veterans Health Administration, Saint Louis, Missouri, USA
3Yale School of Medicine, West Haven, Connecticut, USA
4NCPTSD-Dissemination & Education Div, Palo Alto Healthcare System, Menlo Park, California, USA

Objective: Since 2006, the Veterans Health Administration (VHA) has instituted policy changes and training programs to implement two evidence-based psychotherapies (EBPs) for PTSD, Cognitive Processing Therapy (CPT) and Prolonged Exposure (PE). To assess lessons learned from this unprecedented effort, we used PubMed and the PILOTS databases and networking with researchers to identify recent studies on contextual influences on implementation of EBPs for PTSD in VHA settings. Methods: 32 reports from 19 studies were identified. Findings were coded using the Exploration, Planning, Implementation, and Sustainment (EPIS; Aarons et al, 2011), RE-AIM (Galsgow et al., 1999) and CFIR (Damschroder et al., 2009) frameworks. Results and Conclusions: The findings indicate both areas of progress in implementation and continuing challenges. Joan Cook will review how within-agency factors such as clinician knowledge, goals and priorities, innovation fit, and fidelity support influence use of EBPs. Craig Rosen will discuss patient preferences and patient decision-making regarding CPT and PE. Monica Matthieu will suggest strategies to address key barriers identified in this research. Shannon Wiltsey Stirman will summarize contributions of this research.
to implementation science, and key challenges for future research. The panel will then invite broader audience discussion of these issues.

Workshop Presentation
Saturday, November 12
10:15 AM to 11:30 AM
Dallas D1

The Intersection of PTSD and Eating Disorders: Personal and Professional Perspectives
(Practice, Anx-Assess Dx-Bio Med-Rape, Lifespan, M, Industrialized)

SETLIFF, Stephanie, MD; SCHAEFER, Jenni, BS
1Eating Recovery Center, Plano, Texas, USA
2Eating Recovery Center, Denver, Colorado, USA

Eating disorders (ED) and posttraumatic stress disorder (PTSD) are debilitating conditions that co-occur frequently. While a significant number of eating-disordered women and men report a history of trauma, research suggests that it is PTSD, not the trauma itself, that best predicts the development of ED, particularly bulimia nervosa (BN) and other EDs characterized by bulimic symptoms (e.g., binge eating and purging). Data indicate that 37-45% of adults with BN and 22-26% of those with binge eating disorder (BED) have a lifetime prevalence of PTSD—compared to 5-12% without an ED. The purpose of this workshop is to address risk factors, etiology, assessment, and evidence-based treatment approaches for PTSD and ED. To that end, Stephanie Setliff, M.D., will discuss the most up-to-date research as well as clinical implications, including the use of sequential versus concurrent treatment approaches for co-morbid PTSD-ED. Author Jenni Schaefer, a recovered patient with a history of ED and PTSD, will share her story of seeking professional help, an experience that encompasses misdiagnosis, uninformed treatment methods, and, ultimately, the importance of evidence-based approaches. Combining research, clinical, and personal perspectives, this interactive workshop uniquely addresses the critical issues involved in recognizing and treating individuals with both PTSD and EDs.

Oral Paper Presentations
Saturday, November 12
10:15 AM to 11:30 AM
Houston Ballroom B

Refugees Paper Session

Epidemiology of Exposure to Trauma and Loss in Relation to Psychopathology for Internally Displaced Colombian Women
(Global, Assess Dx-GLOBAL-Refugee-Gender, N/A, I, Latin Amer & Carib)

SHULTZ, James, PhD; ESPINEL, Zelde, MD, MA, MPH
University of Miami Miller School of Medicine, Miami, Florida, USA

Introduction: Colombia’s 6 million internally displaced persons (IDPs) have been exposed to violence, trauma and loss throughout all phases of forced migration. The Outreach, Screening, and Intervention for Trauma (OSITA) pilot project introduced a 3-tiered, stepped-care mental health intervention model for women IDPs in Bogotá. Methods: At baseline, 279 women IDPs were recruited and screened for 3 common mental disorders (CMDs: depression, generalized anxiety, PTSD) and exposures to trauma and loss during 3 time periods: pre-, peri-, and post-displacement. Results: Among 279 participants, 63% had moderate or severe symptom elevations for at least one CMD. Participants endorsed a mean of 24-of-43 trauma/loss stressors (12 pre-, 18 peri-, 13 post-displacements exposures). Structural equation modeling (SEM) demonstrated that the 12 pre-displacement exposures and a cluster of 4 post-displacement stressors were strongly predictive of CMD symptom elevations. The total number of trauma/loss exposures had a main effect and predicted higher overall symptom elevations. Analyses of baseline exposures in relation to treatment outcomes are underway. Conclusions: For this highly-traumatized population of women IDPs, all of whom experienced multiple losses due to forced migration, the cumulative burden of trauma/loss exposures predicted the severity of psychopathology.
The Effectiveness of Psychosocial Interventions in Young War-Traumatized Refugees - Systematic Review and Meta-Analysis
(Clin Res, Refugee-Civil/War, Child/Adol, M, Global)

Nocon, Agnes, PhD, MSc; Unterhitzenberger, Johanna, PhD; Eberle-Sejari, Rima, DPsysch(Clin); Rosner, Rita, PhD(c)

Catholic University Eichstaett-Ingolstadt, Eichstätt, Bavaria, Germany

We study the efficacy of psychosocial interventions to improve trauma-related symptoms in war-traumatized displaced minors. Furthermore, we examine whether treatment outcome is related to leaving the home country, as treatment outside the war region usually means a safe environment, but often also the loss of familial support and requires the young people to adapt to a new culture and language. We searched PILOTS, MEDLINE, WoS, Embase, CENTRAL, LILACS, PsycINFO, ASSIA, CSA and SA. Included were RCTs, quasi-experimental and cohort studies of young refugees and internally displaced persons (IDPs) with direct war-related trauma exposure. Within-group effect sizes were calculated using a random-effects model, effects of residence status using a mixed-effects model. 27 studies met the inclusion criteria, 21 were included in the meta-analysis, comprising 18 treatment groups for PTSD (N=831) and 18 treatment groups for depression (N=642). Effect sizes were 0.77 (95% CI, 0.50-1.05) for PTSD and 0.44 (95% CI, 0.16-0.72) for depression. Effects were not different for those treated in their home country and those treated abroad. War-traumatized displaced minors can be effectively treated. Trained lay persons can provide effective treatment both in individual and group or school class settings. However, in this field non-evidence-based interventions are frequently used.

Interpersonal Psychotherapy Intervention for Highly-Traumatized Colombian Women “Victims of the Armed Conflict”
(Clin Res, Clin Res-Global-Refugee-Gender, N/A, M, Latin Amer & Carib)

Espinel, Zelde, MD, MA, MPH; Shultz, James, PhD

University of Miami Miller School of Medicine, Miami, Florida, USA

Introduction: The Outreach, Screening, and Intervention for Trauma (OSITA) feasibility study applied a 3-tiered, stepped-care mental health intervention model for internally-displaced women (women IDPs) in Bogotá who were officially designated as “victims of the armed conflict.”

Methods: At baseline, 279 women IDPs received screening for 3 common mental disorders (CMDs: depression, generalized anxiety, PTSD) and psycho-education. Women IDPs with moderate/severe symptom elevations on at least one CMD were referred to interpersonal psychotherapy/counseling (IPC). Results: Overall symptom levels decreased over time across three time points: baseline, final IPC session, and follow-up. All participants showed significant improvement over time and maintenance of changes through follow-up. Even participants who attended only the baseline screening/psycho-education session – and were syndromal at baseline - showed significant symptom decreases at follow-up. Participants who attended at least 2 IPC sessions showed significant symptom decreases during the course of IPC. Participants with elevated symptoms of depression at baseline showed significant symptom decreases from baseline to last IPC session and from last IPC session to follow-up. Conclusions: Pilot results for the use of IPC with Colombian women IDPs demonstrate consistent and significant decreases in CMD symptoms.

Elder Asylum Seekers and Refugees Seeking Treatment
(CulDiv, Rights-Refugee-Civil/War-Care, Older, M, Global)

Piwowarczyk, Lin, MD MPH1; Sato, Jennifer, MA2
1Boston Center for Health & Human Rights / Boston University, Boston, Massachusetts, USA
2Boston Center for Refugee Health and Human Rights, Boston, Massachusetts, USA

Background: Refugees and asylum seekers come to the United States seeking protection from persecution. Among groups viewed as vulnerable refugees are elders, defined here as sixty and older.

Methodology: This is a retrospective chart review of elders who were torture survivors themselves or family members seeking mental health services at a torture treatment program, between January 1, 2004 and August 15, 2015 (n=51). Analyses included
oral paper presentations
Saturday, November 12
10:15 AM to 11:30 AM
Houston Ballroom C

Military One Paper Session

Longitudinal Association of PTSD and Physical Function in Military Veterans: Data from the Mind Your Heart Study
(Bio Med, Bio Med-Health-Mil/Vets, Adult, M, Industrialized)

Ahmadian, Ashkan, BA; Neylan, Thomas, MD; Whooley, Mary, MD; O’Donovan, Aoife, PhD; Metzler, Thomas, MA; Cohen, Beth, MD, MAS
1University of California, San Francisco, USA
2San Francisco VA Medical Center and UCSF, San Francisco, California, USA
3University of California, San Francisco and San Francisco VAMC, San Francisco, California, USA
4San Francisco VA Medical Center (VAMC-SF), San Francisco, California, USA

Few longitudinal studies have investigated the potentially dynamic relationship between PTSD and physical functioning and among these, follow-up was limited. We evaluated whether current PTSD symptoms predicted future physical function and vice versa using five assessments over four years. We used data from a longitudinal cohort study, restricting our analyses to 257 patients with PTSD at baseline. PTSD diagnosis was determined with the CAPS, and symptom severity was assessed annually with the PTSD Checklist (PCL). Physical function was measured with the 10-item subscale of the SF-36. An autoregressive cross-lagged panel model was used to determine synchronous and lagged effects controlling for age, gender, ethnicity, and education. PTSD was a significant predictor of future physical function, with a 10-point increase in PCL score predicting a decline in physical function of 0.3 points over one year (p<.001). A 1-point decrease represents development or worsening of a limitation in a common activity such as bathing, dressing, or walking. Therefore, this effect can be clinically significant over time. Physical function was also a significant predictor of future PTSD symptoms, but effect sizes were smaller. PTSD and physical function are interlinked in Veterans. Reducing PTSD symptoms may enhance physical function and prevent declines as Veterans age.

Procedural and Interactional Justice during Military Deployment: is Perceived Justice a Protective Factor for the Development of PTSD?
(Prevent, Health-Mil/Vets, Adult, M, Industrialized)

Elrond, Andreas, PhD Student; Høgh, Annie, PhD; Andersen, Søren, PhD, Cpsych
1Research and Knowledge Center, The Danish Veteran Center, Ringsted, Denmark
2Copenhagen University, Copenhagen, Denmark

Perceived quality of leadership during military deployment has gained research attention as a potentially modifiable factor for the development of post deployment PTSD. Within non-military settings, the organizational justice framework, i.e. distributive, procedural (PJ) and interactional justice (IJ), has been found to relate to mental health outcomes (Ndjaboué, Brisson, & Vézina, 2012). However, such relations have not yet been tested in military samples deployed into war zones. Before, during and after deployment to Afghanistan in 2009 Danish soldiers (N=257) answered a range of questionnaires including a composite measure of PJ/IJ exhibited by their immediate superior. Further, they participated in a Structural Clinical Interview for DSM-IV (SCID) 2½ years after homecoming. We examined the prospective associations between PJ/IJ and odds of
being identified with PTSD via SCID, while controlling for a range of possible explanatory variables including war zone stress and pre-deployment PCL score. PTSD was predicted by scores on the continuous measure (range 0-12) indicating higher PJ/IJ (OR=0.86, 95% CI= 0.76 – 0.98) adjusted for pre-deployment PCL and war zone stress. No interaction with war zone stress was found. The results suggest that PJ/IJ exercised by superiors during military deployment may protect subordinate soldiers against the development of post deployment PTSD.

Impact of Military Service on Longevity among World War II American Veterans of Japanese Ancestry
(Bio Med, Mil/Vets-Aging, Older, I, Industrialized)

Willis, Emy, BA1; Mackintosh, Margaret-Anne, PhD2; Schaper, Kim, MA2; White, Lon, MD MPH1
1Pacific Health Research and Education Institute, Honolulu, Hawaii, USA
2National Center for PTSD- Pacific Island Division, VA Pacific Island Healthcare System, Honolulu, Hawaii, USA

Intensive and protracted physical or emotional wartime experiences in early adult life may influence survival and longevity. Elevated later life mortality has been observed among World War II (WW II) survivors reporting more severe wartime stressors (Bramsen et al., 2007) while others have found no such impact (Schnurr et al., 2000). Using data from the Honolulu Heart Program we investigated the effects of WWII service on age at death in 1426 veteran and 3984 civilian Japanese American men born 1900-1919, among whom 93% have died. Military service was not significantly associated with longevity after controlling for highly relevant mid-life health conditions (including depressive symptomatology). In a subset of veterans with detailed self-reports of combat experience (n=585), type and intensity of the exposure were unassociated with longevity, again controlling for relevant health factors.

Posttraumatic Stress Disorder and Cardiovascular Fitness: Findings from the Mind Your Heart Study
(Bio Med, Bio Med-Health-Prevent-Mil/Vets, Adult, I, Industrialized)

Rollins, Allman, MD1; Frigaard, Martin, MA1; Whooley, Mary, MD2; Neylan, Thomas, MD2; Walker, Benjamin, MD1; Cohen, Beth, MD, MAS2
1University of California, San Francisco, San Francisco VA Medical Center, San Francisco, California, USA
2San Francisco VA Medical Center and UCSF, San Francisco, California, USA

Cardiovascular disease (CVD) remains the leading cause of mortality and morbidity worldwide. PTSD is an independent risk factor for CVD, but its impact on cardiovascular fitness, an important measure of physical function and predictor of health outcomes, has not been evaluated. We sought to determine whether PTSD is associated with impaired cardiovascular fitness and examine the role of health behaviors in this association. We recruited 630 patients from San Francisco Bay area Veterans Affairs medical centers between 2008 and 2010. PTSD was assessed using the CAPS. Maximum oxygen uptake (VO2 max), a gold standard measure of fitness, was determined from ventilation and gas exchange during exercise treadmill testing. Participants with PTSD had significantly lower VO2 max after adjusting for age, sex, race, and heart disease (coefficient -2.04 mL/kilogram*minute, p<.001). This association was no longer significant after controlling for tobacco use and self-reported exercise habits. Patients with PTSD have lower cardiovascular fitness, which can impair their function in daily life and place them at increased risk for CVD events and death. Our findings suggest interventions targeted at promoting healthy behaviors in patients with PTSD could improve their function, cardiovascular health, and longevity.
CONCURRENT SESSION TEN

Master Clinician
Saturday, November 12
1:15 PM to 2:30 PM
Dallas B/C

Treating PTSD through the Internet - Efficacy, Treatment Principles and Challenges of the Virtual Therapeutic Relationship with the PTSD Patients

Knaevelsrud, Christine, PhD
Free University of Berlin, Berlin, Germany

Meta-analyses show consistent evidence and large effect sizes of for trauma-focused therapies. However, these are not widely applied in clinical practice. Moreover, only a minority of traumatized individuals who experience symptoms of PTSD are in touch with the health care system and only around one in five patients seeks psychological treatment due to fear of stigmatization, embarrassment, judgment or exclusion or negative beliefs about mental health care services. Above all, there is a pronounced lack of psychotherapy supply for PTSD, with long waiting times and inadequate psychotherapy infrastructure. This disparity of need for psychotherapy and supply is crucial, and alternative means of providing access to treatment are needed. Web-based psychotherapeutic interventions may help to improve access to mental health care for individuals with PTSD through being independent from seeing a therapist face-to-face and through being easily accessible, low-threshold and visually anonymous. Meta-analytical evidence shows that cognitive and behavioral intervention techniques for PTSD can be successfully applied through the Internet (i.e. though writing assignments, video/audio vignettes or interactive trainings) and describe specific moderators that are associated better outcomes (i.e. duration of treatment, guided versus unguided interventions). The virtual therapeutic relationship with PTSD patients who regularly show difficulties with interpersonal trust and relationships will be specifically discussed.

Symposium
Saturday, November 12
1:15 PM to 2:30 PM
Dallas A1

Designing and Implementing Broad Reach Early Trauma Focused Interventions for Public Health Dissemination
(Pub Health, Nat/Dis-Prevent-Pub Health-Tech, Lifespan, M, Industrialized)

Zatzick, Douglas, MD
University of Washington/Harborview Medical Center, Seattle, Washington, USA

This symposium will describe a spectrum of early trauma focused intervention strategies that target broad reach public health dissemination efforts. The symposium presentations will include web-based and in-person early intervention strategies for trauma exposed youth and adults who are at risk for developing PTSD and related comorbidities. Dr. Kassam-Adams will present data on the development of web-based e-health screening procedures for injured children and their families. Dr. Ruzek will present data on smart-phone application based early PTSD interventions. Dr. Watson will present the implementation of public health early post-disaster interventions targeting PTSD and related comorbid conditions. Dr. Darnell will present data on the effectiveness of broad reach cognitive behavioral therapy elements targeting PTSD and comorbidity after acute injury. Chair led audience discussion will be encouraged, and will focus on public health policy perspectives relevant to dissemination of the broad reach early screening and intervention strategies described by the presenters.
Watchful Waiting: Can an eHealth Approach Address the Challenge of Ongoing Screening Post-Trauma?
(Prevent, Acc/Inj-Acute-Tech, Child/Adol, M, Industrialized)

Kassam-Adams, Nancy, PhD; Marsac, Meghan, PhD; Kohser, Kristen, MSW; Winston, Flaura, MD, PhD
1University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA
2The Children’s Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

Approximately 1 in 6 injured children seen for emergency or inpatient care will develop persistent posttraumatic stress symptoms (PTSS) that interfere with recovery, but that can only be detected after a child is discharged home. Injury-related PTSS are associated with pain, re-injury risk, poorer adherence to follow-up care, and poorer health outcomes. However, few health care systems address post-injury PTSS, and conducting follow-up to monitor children’s symptoms and pain after discharge is challenging. Web-based “eHealth” tools have the potential to address this gap. This presentation will address an innovative use of technology to achieve “watchful waiting” with children after an acute trauma exposure. We will describe the development of a game-based eHealth tool designed to capture child self-report of post-injury PTSS, pain, and functional recovery. The system leverages a game-like interface used successfully by school-age children in a prior randomized trial, and incorporates validated brief screening tools. Screening results will be integrated with clinical workflows for health care providers and with web-based resources for parents. Interviews with end-users have helped to shape the system’s features and functionality. We will report on design and initial user testing of this system with children, parents, and health care providers.

Designing Technologies to Increase the Reach of Early Post-Trauma Intervention
(Tech, Prevent-Pub Health, Adult, M, Industrialized)

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

Delivery systems for early post-trauma intervention include disaster crisis counseling programs, rape crisis centers, crime victim advocacy programs, hospital emergency room support services of different kinds, and combat stress control. In most of these settings there are limited human resources, little evidence for intervention approaches, relatively few trained providers, and lack of potential user engagement. Potentially, web and phone technologies can be used to reach more trauma survivors and improve quality of interventions. We describe the design of several technology tools designed to serve individuals exposed to recent trauma, and how they might be incorporated into early trauma response as part of a system of care.

Increasing Community Capacity to Respond to Disasters
(Prevent, Nat/Dis-Tech/Dis-Train/Ed/Dis-Civil/War, Lifespan, M, Global)

Watson, Patricia, PhD
National Center for PTSD, Executive Division, White River Junction, Vermont, USA

Disaster settings often require that early dissemination strategies be modified to fit the demands of the local need. This session will describe a variety of dissemination and training strategies designed to increasing community capacity to provide psychosocial support following disasters and conflicts, including rapid mobilization of face to face trainings, online trainings for disaster responders and first responders, a virtual Skype school created to respond to the needs in the aftermath of the Ukrainian revolution, and adaptations of disaster intervention protocols and principles for different cultures.
Embedding Cognitive Behavioral Therapy within Care Management to Effectively Reduce Early PTSD Symptoms
(Prevent, Prevent-Pub Health, Adult, M, Industrialized)

Darnell, Doyanne, PhD\(^1\); O'Connor, Stephen, PhD\(^2\); Wagner, Amy, PhD\(^3\); Wang, Jin, PhD\(^1\); Russo, Joan, PhD\(^4\); Zatzick, Douglas, MD\(^1\)
\(^1\)University of Washington/ Harborview Medical Center, Seattle, Washington, USA
\(^2\)Western Kentucky University, Bowling Green, Kentucky, USA
\(^3\)University of Washington, Seattle, Washington, USA
\(^4\)University of Washington School of Medicine, Seattle, Washington, USA

The current presentation highlights the potential for enhancing the public health impact of early interventions for trauma exposed populations by embedding cognitive-behavioral therapeutic (CBT) elements in routine care management. We present findings from a 121-person pragmatic clinical trial that randomized acutely injured trauma survivors to a stepped, measurement-based, collaborative care intervention. Patients were gradually stepped-up into a CBT protocol, which began with less intensive elements (e.g., relaxation), and progressed to more intensive elements (e.g., behavioral activation assignments). The intervention was associated with modest PTSD symptom reductions; at 6 months, 45% of intervention versus 29% of control patients demonstrated greater than a 10 point reduction on the PTSD Checklist. At baseline, patients were equally willing to talk with a counselor about posttraumatic concerns and had equal mental health service utilization; however patients in the intervention group more often reported receiving psychotherapy or counseling during the study. Among intervention patients, CBT elements homework completion was significantly associated with a reduction in PTSD symptoms. In hard-to-reach populations, before entering session-based treatment, CBT elements embedded within routine care management may be an effective early intervention strategy.

Symposium
Saturday, November 12
1:15 PM to 2:30 PM
Dallas D1

Neural Advances in Posttraumatic Stress Disorder
(Bio Med, Complex-Torture-Mil/Vets-Neuro, Adult, M, Global)

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

Understanding neural networks underpinning human traumatic stress reactions is important to elucidating PTSD psychopathology and processes of recovery. This symposium will highlight four studies employing innovations in magnetic resonance imaging to address different psychopathological processes and various moderating factors in PTSD. The first study extends on voxel-based methods to present a diffusion spectrum imaging (DSI) investigation of the connectivity between default mode brain regions in a sample of traumatic brain injury patients. The second study presents real-time functional MRI data on amygdala functioning in PTSD patients. The third study reports on discerning the neural substrates of emotional withdrawal and dissociation symptoms in a sample of traumatized refugees and torture survivors. The fourth study examines the neural changes associated with modulating self-efficacy in combat veterans. These different studies highlight the potential of neuroimaging to shed light into the neural mechanisms governing traumatic stress and how these insights may be harnessed to inform the development of clinical interventions for PTSD.

Structural Connectivity Analysis on Diffusion Spectrum Imaging Data Using Low Rank plus Sparse Decomposition for the Studies of Traumatic Brain Injury and Posttraumatic Stress Disorder
(Assess Dx, Neuro, Adult, M, N/A)

Chen, Jingyun, PhD; Baete, Steven, PhD; Yau, Po Lai, PhD; Blessing, Esther, PhD, MD; Gonzalez, Bryan, BSc; Qian, Meng, PhD; Li, Meng, MSc; Abu-
Amara, Duna, MPH; Boada, Fernando, PhD; Marmar, Charles, MD
New York University School of Medicine, New York, New York, USA

Diffusion Spectrum Imaging (DSI) provides a robust estimation of intravoxel fiber tract crossings, allowing accurate modeling of the white-matter connectivity of the human brain. We conducted DSI-based connectivity analyses for 78 subjects (52 Traumatic Brain Injury (TBI) cases and 26 age ethnicity and gender matched healthy controls). Data were acquired on a 3T scanner with 20-channel head coil using the accelerated radial q-space sampling method. We applied the low rank plus sparse (L+S) decomposition to identify cohort-specific connectivity signatures that are robust to outlier biases. Trending group differences (p<0.01) were found from the normalized numbers of fibers between multiple region pairs, including basal ganglia regions and connectivity hub regions from the default mode network. The direction of group differences varied across these region pairs. These findings are consistent with our previous voxel-wise study of the diffusion orientation distribution function, where the group average tractography of TBI and posttraumatic stress disorder (PTSD) subjects both showed structural disconnection in the same brain regions but with different degrees. Further preliminary results using machine learning methods suggest that these regional connectivity features are applicable for discriminating TBI and PTSD subjects.

Amygdala Down-Regulation Using Real Time fMRI in Posttraumatic Stress Disorder
(Bio Med, Bio/Int-Neuro, Adult, M, Industrialized)

Nicholson, Andrew, BSc1; Rabellino, Daniela, PhD2; Puri, Christian, PhD3; Densmore, Maria, BSc1; Frewen, Paul, PhD2; Schmahl, Christian, MD3; Lanius, Ruth, MD, PhD2
1University of Western Ontario, Depts of Psychiatry and Psychology, London, Ontario, Canada
2University of Western Ontario, London, Ontario, Canada
3Mannheim University, Mannheim, Germany
4Central Institute of Mental Health, Dept. of Psychosomatic Medicine, Mannheim, Germany

Real-time functional magnetic resonance imaging (rt-fMRI) neurofeedback allows individuals to self-regulate brain activity. In order to examine the regulation of emotional states we targeted amygdala down-regulation using rt-fMRI neurofeedback in patients with PTSD. Patients (n=10) completed 3 sessions of amygdala down-regulating rt-fMRI neurofeedback while viewing personalized trauma words. Regulation was assessed by contrasting a) regulate trials with b) viewing trauma words and not attempting to regulate, where results were corrected for multiple comparisons. Training was followed by one transfer run without neurofeedback. Generalized psychophysiological interaction (gPPI) and dynamic causal modelling (DCM) analyses were also computed. PTSD patients were able to down-regulate bilateral amygdala activation. Increased activation in the dorsal PFC was found during regulate conditions. In contrast, increased activation in brain regions related to contextual memory/pain processing/consciousness/interoception was observed during the view condition. This therapeutic shift in neural activation was found to be negatively correlated to PTSD symptoms. Furthermore, increased amygdala- PFC connectivity was found during regulate conditions. The current study demonstrates the successful down-regulation of amygdala activation in patients with PTSD.

Neural Changes Associated with Increasing Self-Efficacy in PTSD
(Bio Med, Bio Med-Mil/Vets, Adult, M, Industrialized)

Brown, Adam, PhD1; Titcombe, Roseann, MD PhD2; Chen, Jingyun, PhD3; Rahman, Nadia, BA2; Bryant, Richard, PhD2; 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 New South Wales, Sydney, New South Wales, Australia

Low levels of self-efficacy are linked to PTSD onset and poor treatment outcome. This talk will present findings from research examining cognitive and neural changes associated with increasing perceptions of self-efficacy among combat veterans with and without PTSD. Specifically, perceptions of self-efficacy were enhanced through a novel induction in which veterans recalled personal memories of self-efficacy. The results show that following the recall of self-efficacy autobiographical memories, combat veterans with and without PTSD were more effective on future thinking and problem-solving tests. In
addition two functional neuroimaging studies showed that increasing perceptions of self-efficacy in combat veterans led to greater recruitment of regions in the prefrontal cortex. Combat veterans assigned to the high perceived self-efficacy condition exhibited greater resting-state functional connectivity between the ventromedial and dorsolateral prefrontal cortex compared to a control condition. Moreover, combat veterans with and without PTSD in the perceived high self-efficacy condition showed greater recruitment in the ventromedial prefrontal cortex on an instrumental fear task. Increasing perceptions of self-efficacy through autobiographical memory may aid in the engagement of cognitive processes and neural structures that are relevant to recovery from trauma.

Neural Correlates of Emotional Numbing and Dissociation Symptoms in Survivors of Torture

Liddell, Belinda, PhD; Das, Pritha, PhD; Felmingham, Kim, PhD; Malhi, Gin, PhD; Nickerson, Angela, PhD; Askovic, Mirjana, BSc Hons Psychology; Aroche, Jorge, BBSc, MPsych; Coello, Mariano, BBSc, MPsych; Bryant, Richard, PhD

1University of New South Wales, Sydney, New South Wales, Australia
2University of Sydney, Sydney, New South Wales, Australia
3University of Tasmania, Hobart, Tasmania, Australia
4University of Sydney, St Leonards, New South Wales, Australia
5South Western Sydney Area Health Service, Sydney, New South Wales, Australia

Torture is characterized by being severe, prolonged, uncontrollable and interpersonal. Other groups who have experienced traumas that share these qualities frequently exhibit complex PTSD reactions, dissociative symptoms and emotional numbing and withdrawal. These symptoms have been associated with reduced fear responsivity and hypoarousal, reflected in over-activation of medial prefrontal regions. It is unclear how emotional numbing and dissociative symptoms modulate fear processing mechanisms in torture survivors. Twenty torture survivors completed a functional MRI scan in which they viewed faces displaying fear or neutral faces. In a multiple regression and mediation analyses, we examined whether neural activation in the amygdala, insula and medial prefrontal cortex in response to fear faces was predicted by torture severity, emotional numbing and dissociative symptoms. Emotional numbing symptoms and dissociation symptoms were associated with dorsomedial prefrontal and activity insula during fear processing, and torture severity significantly predicted amygdala and posterior dorsomedial activity. Mediation analyses further revealed significant relationships between these regions and symptoms. The findings have implications for understanding the relationship between the clinical profile of torture survivors and the long-term impact of torture on fear processing networks.

Symposium
Saturday, November 12
1:15 PM to 2:30 PM
Dallas D2

Addressing Self-Conscious Emotions in Trauma Related Treatment with Military Veterans

Capone, Christy, PhD; Norman, Sonya, PhD

1Brown University Center for Alcohol and Addiction Studies, Providence, Rhode Island, USA
2National Center for PTSD, San Diego, California, USA

Guilt and shame are self-conscious emotions that have been implicated in the development and maintenance of posttraumatic distress and psychopathology, including posttraumatic stress disorder (PTSD), depression and suicidality, and substance use disorders (SUD). There is a growing body of research demonstrating the importance of targeting transdiagnostic mechanisms in the treatment of common mental health problems affecting military Veterans. This symposium brings together three investigative teams to discuss the importance of targeting guilt and shame in the context of treatment for PTSD, SUD, and depression and suicidality. The first presentation describes data from an ongoing study of the effects of a shame induction protocol in Veterans with a history of substance use and suicidal ideation. The second presentation will describe...
preliminary findings from an open pilot study of mindful self-compassion focused treatment with Veterans with posttraumatic guilt and co-occurring PTSD-SUD. The final presentation examines the distinction between perpetration- and betrayal-based moral injury on PTSD in a large longitudinal study of Marines exposed to high degrees of combat. Our discussant, Sonya Norman, will reflect on what this new research tells us about the importance of addressing guilt and shame in treatment with Veterans.

**Self-Compassion Focused Treatment for Co-occurring PTSD and Substance Use Disorders in Veterans with Posttraumatic Guilt**

(Clin Res, Health-Sub/Abuse-Mil/Vets, Adult, I, N/A)

Eaton, Erica, PhD; Capone, Christy, PhD; Shea, M. Tracie, PhD

1. VA, Providence, Rhode Island, USA
2. Brown University Center for Alcohol and Addiction Studies, Providence, Rhode Island, USA
3. Alpert Medical School of Brown University, Providence, Rhode Island, USA

Co-occurring posttraumatic stress disorder and substance use disorder (PTSD-SUD) is common following combat exposure, affecting a rapidly increasing number of U.S. Veterans. There has been a shift away from disorder-specific treatments toward development of interventions that target mechanisms, such as guilt, thought to underlie multiple highly prevalent disorders. Self-compassion focused treatment (SCFT) combines the skills of mindfulness and self-compassion (SC), providing self-soothing skills to respond to difficult thoughts and feelings, including guilt. This presentation will describe a pilot trial of SCFT with Veterans with PTSD-SUD and posttraumatic guilt. Our primary aims were testing the feasibility of engaging and retaining Veterans with a complex clinical presentation in an 8-week group. It was hypothesized that enhancing SC would reduce posttraumatic guilt and lead to improvements in PTSD-SUD. We recruited 8 eligible Veterans, 3 of whom completed SCFT. Five participants had complete pre- and post-treatment data allowing for examination of clinically meaningful change. Trends suggest a decrease in PTSD symptoms, substance use, and trauma-related guilt. We encountered some challenges related to retaining Veterans in treatment and discuss refinements of SC focused treatments for Veterans with PTSD-SUD and posttraumatic guilt to increase feasibility in future research.

**Guilt, Shame, and Anger as Mediators of the Relationship between Moral Injury and PTSD**

(Clin Res, Clin Res-Complex-Dev/Int-Mil/Vets, Adult, I, Global)

Bolton, Elisa, PhD; Jordan, Alexander, PhD; Eisen, Ethan, MPhil; Nash, William, MD; Litz, Brett, PhD

1. VA Boston Healthcare System, Jamaica Plain, Massachusetts, USA
2. Boston VA Healthcare System, Boston, Massachusetts, USA
3. Massachusetts Veterans Epidemiology Research and Information Center, Boston, Massachusetts, USA
4. Marine Corps, Arlington, Virginia, USA
5. VA Boston Healthcare System & Boston University School of Medicine, Boston, Massachusetts, USA

Service members deployed to war are at risk for being exposed to a variety of potentially morally injurious experiences (PMIEs) that violate personal and shared moral codes. Conceptually, we have categorized these types of warzone harms into perpetration- and betrayal-based PMIEs, which represent starkly different types of transgressions and outcomes. Perpetration entails harming others from acts of commission or omission, leading to shame; betrayal based PMIEs entail being harmed by others’ transgressions, leading to outrage and anger. No study to date has substantiated this distinction. Using data from the Marine Resiliency Study, we hypothesized that the association between perpetration-based PMIEs and PTSD would be mediated by guilt and shame, and the association between betrayal-based PMIEs and PTSD would be mediated by anger. In contrast, we predicted that the link between combat exposure and PTSD would be mediated by dissociation. Using path analysis of post-deployment data from a large cohort of Marines exposed to high degrees of combat, we found evidence to support our predictions and the validity of subtyping PMIEs. In addition, perceived perpetration and betrayal accounted for PTSD symptoms above and beyond reports of danger-based combat exposure. The research and treatment implications of these findings will be discussed.
Acute Shame, Substance Use and Suicidal Ideation in Veterans
(Practice, Complex-Grief-Mil/Vets, Adult, I, Industrialized)

Cameron, Amy, PhD
Providence VA Medical Center, Providence, Rhode Island, USA

Suicide among Veterans represents a significant rising and public health concern. Substance use disorders are the most prevalent disorder among psychological autopsy reports on completed suicide and confer risk for non-fatal suicide attempts in military populations. Although some risk factors for suicide have been identified in substance users, such as depression and hopelessness, prediction of suicide is still poor. Despite the well-demonstrated risk of suicide in Veterans with SUDs, rates have not been going down despite efforts, and substance use treatment itself has not been effectively shown to reduce suicide risk. Since co-occurring disorders can make diagnosis and treatment complex, it is useful for the mental health field to examine common factors that may underlie both problems. One common factor that underlies both substance use and suicidal behavior is shame, thus the current study examines shame in a Veteran population. Participants in the current study are 100 Veterans with a history of substance use and suicidal ideation. This presentation provides data that suggests acute levels of shame in veterans with a history of substance use and suicidal ideation elicits higher levels of suicidal ideation following an experimental shame mood induction vs. control.

Moral Injury and the Justice-Involved Veteran
(Clin Res, Assess Dx-Mil/Vets-Theory, Adult, I, Industrialized)

Gauthier, Justin, PhD; Cosden, Merith, PhD
University of California, Santa Barbara, Santa Barbara, California, USA

Mounting clinical wisdom and theory suggests that current conceptualizations of veterans’ mental health problems, such as fear-based models, may not be adequate. Moral injury is an emerging concept that includes the more intricate spiritual, emotional, and psychological wounds that stem from ethical and moral challenges of military service. A group of veterans that may especially prone to the harmful effects of moral injury are justice-involved veterans. The purpose of this study was to examine the unique impact of moral injury as a contributor to the frequent problems reported by justice-involved veterans and to further understand this construct among the justice-involved veteran population. Eighty-two veterans who presented to a veterans treatment court participated in semi-structured interviews. Results indicated that moral injury contributed to the prediction of PTSD symptoms, depressive symptoms, alcohol use, and drug use, even after controlling for predeployment trauma, combat exposure, and postdeployment trauma. Qualitative analysis examined the types of events that justice-involved veterans reported as morally injurious, revealing that unconventional traumatic events, such as perceived personal and systemic betrayals, were more frequently reported than conventional events, such as combat violence.

Symposium
Saturday, November 12
1:15 PM to 2:30 PM
Dallas D3

The Use of Innovative Assessment Methods to Examine Psychopathology and Treatment Effects in Traumatized Participants in Daily Life
(Res Meth, CSA-Res Meth-Sleep-Civil/War, Adult, A, Global)

Santangelo, Philip, PhD
Karlsruhe Institute of Technology, Karlsruhe, Baden-Wuerttemberg, Germany

Ambulatory assessment methodologies are ideally suited to examine dynamic psychopathological processes in participants’ daily life. In a prospective study Talya Greene et al. examined the emotional dynamics of early responses to traumatic stress in Israeli civilians exposed to rocket fire. Participants reported positive and negative affect twice daily for 30 days via e-diaries and took part in diagnostic interview 2 months later. Eve Carlson et al. examined subtypes of early trauma responses. Recent trauma survivors reported positive and negative affect twice daily for 30 days via e-diaries and took part in diagnostic interview 2 months later. Eve Carlson et al. examined subtypes of early trauma responses. Recent trauma survivors reported positive and negative affect every four hours for one week. Classes of participants defined by mood valence and mood instability were identified and linked to later...
at two months post-trauma, with the highest probabilities for those with moderate or high variability in negative moods. The treatment implications for individuals in different classes will be discussed.

**PTSD, Emotional Valence and Instability in Civilians Exposed to Conflict: A Proximal Intensive Assessment Study**

(Res Meth, Chronic-Civil/War, Adult, A, Industrialized)

Greene, Talya, MPH, PhD¹; Gelkopf, Marc, PhD¹; Carlson, Eve, PhD²; Lapid, Liron, MA¹
¹University of Haifa, Haifa, Israel
²National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA

Little is known about the emotional dynamics of early responses to traumatic stress, and no studies have observed emotional responses to trauma in the context of ongoing extreme stress. Proximal intensive assessment (PIA) methods were used to study emotions during a period of ongoing stress in 181 Israeli civilians exposed to rocket fire, including 85 with a serious mental illness (SMI). During the 2014 Israel-Gaza conflict, summary reports were made twice daily for 30 days via mobile phone.

Assessments of PTSD and depression were conducted 2 months later. ANOVAs showed no significant difference between SMI and no-SMI groups on any variable. ANOVAs to examine differences across groups of individuals who two months later reported high levels of PTSD (with or without depression) (n=32), depression only (n=42), or no PTSD or depression (recovered; n=107) showed that the depression only and PTSD groups had significantly lower positive affect, higher negative affect (NA), and a lower emotional valence than the recovered group. The PTSD group also had significantly higher NA than the depression only group and higher NA instability than the recovered group. Early interventions promoting reduction and regulation of negative emotions during extended periods of stress exposure may be beneficial for the prevention of subsequent distress, and especially for the prevention of PTSD.

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diagnostic assessments. Philip Santangelo et al. addressed the open question whether dissociative symptomatology is caused by trauma or whether people with dissociation proneness tend to be more vulnerable using a comprehensive sample of four groups (patients with PTSD, with borderline disorder, traumatized healthy controls, and healthy controls).

Elizabeth Woodward et al. presents the results of a pre-post-treatment study on sleep disturbances in PTSD. Patients with PTSD, traumatized controls, and healthy controls were compared regarding psychophysiological measures of sleep and arousal. Altogether, studies show a range of innovative applications of ambulatory assessment in trauma research.

**Observed Emotion Regulation Patterns in Early Responses to Trauma and their Relation to Later PTSD and Depression**

(Clin Res, Acc/Inj-Affect/Int-Assess Dx-Prevent, Adult, A, Industrialized)

Carlson, Eve, PhD¹; Cloitre, Marylene, PhD¹; Macia, Kathryn, PhD Student²
¹National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
²Palo Alto University, Palo Alto, California, USA

Problems with emotion regulation may play a role in responses to traumatic stress. Our study of survivors of recent traumatic injury of self or a close family member showed that symptoms related to attachment deficits predicted extreme posttraumatic distress, which in turn mediated later PTSD symptoms. In 62 of these trauma survivors, we examined proximal intensive assessment reports of moods collected every 4 hours for 1 week beginning 2 to 8 days after the injury. We aggregated mood valence (positive mood minus negative mood) by day and conducted a parallel process mixture model analysis that included later outcomes to identify classes of participants defined by both mood valence and negative mood instability (mean square successive distance). Results showed 6 classes: 3 with low valence (more negative than positive moods) and either low, moderate, or high variability and 3 with high valence and either low, moderate, or high variability. Those with early responses of high mood valence (more positive than negative moods) were at very low risk for later PTSD and/or depression. Those with low mood valence (more negative than positive moods) were at risk of disorder.
Sleep Disturbances in Posttraumatic Stress Disorder
(Clin Res, Clin Res-Clinical Practice-Sleep, Adult, A, Industrialized)

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

Sleep disturbances such as insomnia are common in posttraumatic stress disorder (PTSD), and can persist following otherwise effective PTSD treatment. As well as a symptom of PTSD, high arousal is key in many models of insomnia and may contribute to disturbed sleep in PTSD. This talk will present data from a recent patient study, which investigated sleep disturbances in PTSD, the role of arousal, and the effects of trauma-focused cognitive behavioural therapy (CBT) for PTSD on sleep. Patients with PTSD were assessed before and after PTSD treatment, and were compared to a group of traumatised controls without PTSD, and a group who had never experienced a trauma. Sleep was assessed using both objective measures of sleep (7-day actigraphy) and validated self-report measures (questionnaires and 7-day sleep diary). Ambulatory 24-hour heart rate was also measured as an indicator of physiological arousal, and was assessed before and after CBT for PTSD, simultaneous with sleep measures. Group differences and PTSD treatment effects will be presented.

On the Association between Momentary Dissociation and Concurrent Affect in Traumatized Participants in Daily Life: An E-diary Study
(Res Meth, CPA-CSA-Chronic-Complex, Adult, A, Industrialized)

Santangelo, Philip, PhD; Priebe, Kathlen, MSc; Friedmann, Franziska, MA PhD Student; Steil, Regina, PhD; Bohus, Martin, MD; Ebner-Priemer, Ulrich, PhD
1Karlsruhe Institute of Technology, Karlsruhe, Baden-Wuerttemberg, Germany
2Central Institute of Mental Health, Dept. of Psychosomatic Medicine, Mannheim, Baden-Württemberg, Germany
3Humboldt-University Berlin, Germany
4Goethe-University, Frankfurt, Hessen, Germany

Neurobiological models of dissociation postulate that dissociation reduces affective experiences. However, the empirical examination of this association in a daily life setting is still pending. One of the reasons for the dearth of studies is that retrospective assessment methods (e.g., questionnaires) are improper to examine dynamic processes. Offering the possibility of repeated assessments ambulatory assessment methods such as e-diaries are ideally suited to investigate intrapersonal symptom dynamics. This study sought to further clarify whether dissociative symptomatology is caused by trauma or whether people with dissociation proneness tend to be more vulnerable. We used e-diaries to examine the association between dissociation and affect in patients with post-traumatic stress disorder (n=50), patients with borderline personality disorder (n=50), traumatized healthy controls (n=30), and healthy controls (n=30). Participants carried e-diaries on two consecutive days during daily life. We applied a high sampling frequency approach (i.e., brief assessments in 30 minute intervals) to assess momentary dissociative disturbances and affective state during 12 hours per day. We will report findings on group differences regarding the link between momentary dissociative disturbances and affective state in participants’ everyday life and discuss clinical implications.

Symposium
Saturday, November 12
1:15 PM to 2:30 PM
San Antonio Ballroom A

Advances in the Study of Intimate Partner Violence
(Res Meth, Chronic-Complex-DV, Lifespan, M, Industrialized)

Yalch, Matthew, PhD Candidate; Levendosky, Alytia, PhD
1San Francisco VA Medical Center and UCSF, San Francisco, California, USA
2Michigan State University, East Lansing, Michigan, USA

Intimate partner violence (IPV) is a common traumatic stressor and is associated with a number of adverse psychological problems for those exposed to it. Accordingly, IPV has been the focus of a diverse range of research efforts. This panel will showcase
recent advances in methodology applied to the empirical study of IPV. Amber Jarnecke will use multi-level modeling to examine risk factors for intimate partner aggression at the level of the individual and of the couple in a sample of newlyweds. Joel Sprunger will take a social information process model approach to investigate how attention to aggression-promoting cues influences IPV perpetration in a community sample of at-risk couples. Nicola Bernard will examine the longitudinal effect of IPV exposure on mothers’ parenting styles using latent growth curve modeling. Matthew Yalch will describe a Five Factor Model approach to understand vulnerability and resilience factors for psychological functioning in the aftermath of IPV in two samples of young adult women using a Bayesian analytic framework. Alytia Levendosky will conclude with a discussion of risk and vulnerability factors for IPV perpetration and women’s resilient response to IPV exposure, and the implications of this for future research and clinical practice.

**Psychological Aggression in Newlywed Couples: How Individual and Couple-level Factors Predict Perpetration**

(Clin Res, Aggress-DV, Adult, M, Industrialized)

**Jarnecke, Amber, MS; Tan, Kenneth, MS; Sprunger, Joel, PhD Candidate; South, Susan, PhD**

Purdue University, West Lafayette, Indiana, USA

There is an extensive literature examining how individual-level risk factors predict intimate partner aggression (IPA); however, to better understand the context that contributes to aggression between partners, it is necessary to examine couple-level factors as well. The current study explores how both individual- and couple-level risk factors predict psychological aggression perpetration. Participants were newlywed heterosexual couples (N=101 couples) recruited from the community. Assessments were collected at baseline and 6-month and 12-month follow-ups. Of relevance to the current study, measures assessed psychological and physical aggression perpetration, alcohol use problems, and impulsivity. Multilevel modeling tested the hypothesis that couple-level risk factors (i.e., similarity scores on impulsivity and alcohol use problems, mutuality of physical aggression perpetration) would account for greater amount of variance in psychological aggression than individual-level factors (i.e., individual scores on impulsivity and alcohol problems). Results indicate that some couple-level factors demonstrate greater predictive utility than individual-level factors, highlighting the importance of considering couple-level factors when identifying those at-risk for IPA.

### Attention toward Aggression-Promoting Cues in Partner Violent Individuals

(Res Meth, Affect/Int-Aggress-Cog/Int-DV, Adult, M, N/A)

**Sprunger, Joel, PhD Candidate1; Massa, Andrea, BA1; Dyar, Darby, BS2; Eckhardt, Christopher, PhD1; Parrott, Dominic, PhD2**

1Purdue University, West Lafayette, Indiana, USA

2Georgia State University, Atlanta, Georgia, USA

Social information processing etiological models for intimate partner violence (IPV) perpetration suggest that preferential attention toward aggression-promoting cues increases the likelihood of partner aggression. Prior research has shown that such an attention bias is observed to a greater extent in perpetrators of IPV relative to non-violent individuals. Our research objectives were to: 1) examine characteristics of the individual that may predict the activation of such a bias bias in the context of relationship provocation; 2) explore a gap in the literature with regard to how characteristics and behavior from an abusive partner may influence actor characteristics and the activation of such aggression-promoting attentional biases. A community sample of couples at high risk for IPV (N = 238) was recruited from two large metropolitan areas to participate. They completed self-report measures of their own characteristics, as well as some about their partner. Participants then received provocation from their partner prior to completing a latency-based visual search task (i.e., a “dot-probe”) to measure attentional biases toward anger and aggression cues. The results suggest there are individual and partner influences on attention-relevant factors associated with IPV perpetration. The implications for these findings in both research and clinical realms will be discussed.
Intimate Partner Violence, Parenting Support, and Maternal Parenting across Time  
(Clin Res, Chronic-DV, Lifespan, M, Industrialized)

**Bernard, Nicola, MA Student; Kobayashi, Jade, BA; Levendosky, Alytia, PhD; Bogat, G. Anne, PhD**  
*Michigan State University, East Lansing, Michigan, USA*

IPV is frequently associated with more negative maternal parenting behaviors, such as harsh discipline. However, other studies have suggested that there is more variability in parenting, and that some women who experience IPV may engage in more nurturing parenting. While the association between IPV and maternal parenting is conceptualized as developing over time, existing research is largely cross-sectional. Parenting support also plays a role in maternal parenting behaviors; it is most important during early motherhood, when mothers are transitioning to their new role. This longitudinal study examined whether IPV (prenatal to child age 4) and parenting support (child age 1) predicted parenting behaviors (nurturing parenting and harsh discipline; child ages 1 to 4) in 177 mothers. Latent growth curve modeling indicated that as IPV decreased, nurturing parenting increased. Higher levels of initial parenting support were associated with more nurturing parenting across time. As IPV decreased, harsh discipline also decreased across time, but this model’s fit was inadequate. The results suggest that IPV may inhibit a mother’s ability to respond sensitively to her child, perhaps through its effects on her emotional resources. Conversely, early parenting support may promote nurturing parenting by helping new mothers feel more secure in their parental role.

A Five Factor Model Approach to Resilience and Vulnerability Factors of Women Exposed to Intimate Partner Violence  
(Res Meth, Chronic-DV, Adult, M, Industrialized)

**Yalch, Matthew, PhD Candidate; Levendosky, Alytia, PhD; Lannert, Brittany, PhD**  
1*San Francisco VA Medical Center and UCSF, San Francisco, California, USA*  
2*Michigan State University, East Lansing, Michigan, USA*

Recent research has emphasized the influence of individual differences in temperament and interpersonal style on women’s response to intimate partner violence (IPV) exposure. The Five Factor Model (FFM) integrates temperament, interpersonal style, and other aspects of individual differences into a model of personality traits that may be useful for understanding resilience and vulnerability factors for women exposed to IPV. In this paper we provide a brief theoretical overview of the FFM and demonstrate how FFM traits influence women’s response to IPV in two studies. In Study 1 we examine the main and moderating effects of FFM traits on the association between IPV and depressive symptoms in a broad sample of young adult women. In Study 2 we examine the effects of traits on appraisals of IPV in a sample of women selected for IPV exposure. Results indicate that extraversion is a resilience factor and neuroticism is a vulnerability factor for depression within the context of IPV, and that extraversion and neuroticism influence women’s appraisals of IPV over and above IPV severity. Taken together, these results provide a synthesis and clarification of previous studies on the role of individual differences on the response to IPV and suggest directions for future research.

Symposium  
Saturday, November 12  
1:15 PM to 2:30 PM  
San Antonio Ballroom B  
The Influence of Social Resources on Adjustment Following Trauma  
(Pub Health, Comm/Int-Comm/Vio-Cul Div-Nat/Dis, Adult, M, Global)

**Felix, Erika, PhD; Benight, Charles, PhD**  
1*University of California, Santa Barbara, Santa Barbara, California, USA*  
2*UCCS, Colorado Springs, Colorado, USA*

Social resources, such as the size, availability, and reactions of the social support network, can influence adjustment following trauma. Perceived social support is a well-established protective factor; however, less is known of how barriers to accessing social support, disappointment in social support,
received, loneliness, and reactions that are overprotective of the trauma survivor, affect the mental health of survivors. This symposium presents empirical research across diverse trauma types (interpersonal violence, mass violence, natural disaster) and from different countries (Norway, China, U.S.) on the roles of social resources in promoting or hindering recovery following trauma. Two studies in different countries following different traumatic experiences explore the pathways of influence that social support barriers may have on adaptation following trauma. Another study explores how family reactions and disappointment in social support influenced posttraumatic stress symptoms among university students affected by mass community violence. To broaden our focus beyond human-caused traumas, a final study explores the differential influence of perceived versus received social support on depression following a natural disaster in China. Our discussant will highlight implications of the research for public mental health outreach, messaging, and services for trauma survivors.

Social Resources and Mental Health in Victims of Childhood Violence: Social Support, Social Support Barriers, Shame, other People’s Withdrawal and Loneliness
(Social, CPA-CSA-Chronic-Comm/Int, Adult, M, Industrialized)

Thoresen, Siri, PhD; Aakvaag, Helene, MA PhD Student; Stensland, Synne, MD PhD; Strøm, Ida, PhD; Myhre, Mia, MD PhD; Hjemdal, Ole, MA Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Oslo, Norway

Social interaction is closely related to mental health, but the mechanisms involved are poorly understood. This study investigates a spectrum of social factors and their relationship to anxiety/depression. Childhood violence-exposed cases (N=505) and non-exposed controls (N=506) aged 16-33 were drawn from a Norwegian community telephone survey (N=6589) and re-interviewed after 12-18 months. Measures included childhood violence-exposure, trauma-related shame, social support, other people’s withdrawal related to the violence (T1), repeated victimization, social support barriers, loneliness (T2), and anxiety/depression (T1 and T2). All social factors were significantly associated with violence exposure and anxiety/depression. In a linear regression within the case group, withdrawal from others, social support barriers, and loneliness were all uniquely associated with anxiety/depression, and remained significant when adjusted for anxiety/depression at wave one. Our findings indicate that social factors may predict worsening of symptoms one year later. The results also indicate that several aspects of social resources may impact on health by different pathways, which underlines the need to develop more refined measurements of social factors in trauma research.

Social Cognitive Dynamics following Mass Community Violence: How Social Barriers Alter Pathways to Adaptation
(Pub Health, Cog/Int-Comm/Int-Comm/Vio-Theory, Adult, M, Industrialized)

Smith, Andrew, MA PhD Student; Felix, Erika, PhD; Benight, Charles, PhD; Jones, Russell, PhD
1Virginia Tech, Blacksburg, Virginia, USA
2University of California, Santa Barbara, Santa Barbara, California, USA
3UCCS, Colorado Springs, Colorado, USA
4Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA

With a prospective longitudinal design, this study examines the promotion-and-prevention of adaptation in a community exposed to mass violence. We hypothesized that (a) pre-event mastery and social support appraisals would promote lower post-event distress by bolstering post-event coping self-efficacy (mediator), but that (b) the adaptation promoting effects of these prospective protective factors would be nullified at high levels of post-event social support barriers (moderator). Methods. Participants (N = 70; 71.4% female; 40.0% White; 34.3% Asian; 14.3% Hispanic; 11.4% Mixed Race) completed surveys 1-year prior-to and 5–6 months following exposure to the 2014 Isla Vista mass murders. Hypotheses were tested using path analysis with bootstrapping resampling. Results. Findings support both mediation and moderated-mediation hypotheses. At low levels of post-event social support barriers, pre-event mastery and social support appraisals reduce post-event PTSD and depression severity by boosting post-event coping self-efficacy (mediator). However, as post-event social support barriers increased, the effects of pre-event protective factors were reduced to non-significance (moderated-mediation).
Conclusions. This study informs evidence-based targets for preventative (pre-event) and responsive (post-event) public health interventions for promoting adaptation to mass violence.

**Socio-Contextual Influences on Posttraumatic Stress Symptoms following Mass Violence**
(Pub Health, Comm/Vio-Health-Gender, Adult, M, Industrialized)

**Felix, Erika, PhD**  
*University of California, Santa Barbara, Santa Barbara, California, USA*

In 2014, six students from the University of California, Santa Barbara were murdered and 13 wounded, across multiple crime scenes. Using prospective data, this study examined how the recovery context, in terms of family reactions to the tragedy, reaction to media coverage, and any disappointment with social support received, influenced posttraumatic stress symptoms (PTSS) over and above degree of exposure to the tragedy, pre-tragedy mental health, and pre-tragedy trauma exposure. Students (N=143) who participated in a study of college adjustment the year prior to the mass murder were surveyed again following the tragedy (66% female; 40.4% White, 32.6% Asian, 12.1% Latino/a, and 14.9% other). No ethnic differences emerged in PTSS or socio-contextual variables; but women reported greater distress from the media coverage (t[120]=−3.03, p=.003). Results from hierarchical multiple regression analyses (Adj R2=.36; F [6, 114]=11.63, p<.000) showed that overprotective family reactions (β=.39, p<.000) and greater distress from the media coverage (β=.20, p=.017), significantly contributed to PTSS, even after accounting for the influence of pre-tragedy mental health (ns), prior trauma history (β=.18, p=.022), and objective exposure to the tragedy (ns). Disappointment in social support received was unrelated to PTSS. The models were relatively consistent across PTSS symptom subtype.

**The Moderating Effects of Different Sources of Social Support on the Relationship between Disaster Exposure and Depression in China**  
(Global, Depr-Nat/Dis, Adult, M, E Asia & Pac)

**Hall, Brian, PhD**  
1 University of Macau, Taipa, Macau (SAR), China  
2 Nanyang Technological University, Singapore, Singapore  
3 Sun Yat-Sen University, Guangzhou, Guangdong, China  
4 Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, USA

Investigations are needed to identify the specific modifying role of received and perceived support from family and friends on the association between disaster exposure and depressive symptoms. Face-to-face household interviews were conducted in 2014 with a random sample of 751 adults recruited from Yuexiu and Tianhe districts in Guangzhou, China. Sampling was accomplished through spatial epidemiological methods. Participants’ exposure to disaster, depressive symptoms, and social support networks was recorded on tablet devices. Multiple regression analysis was used to test the potential moderating role of social support on depression symptoms. A total of 30.24% reported natural disaster exposure. Disaster exposure and received family support were significantly and positively related to depressive symptoms. In contrast, perceived family support moderated the relationship between disaster exposure and depressive symptoms. No association was found between support from friends and depressive severity. Perceived family support buffered the effect of disaster exposure in this sample, while received family support was associated with increased depression. Perceived family support is an important resource among those who experience disaster exposure and actual provision of family support may be harmful or miscarried.
Panel Presentation
Saturday, November 12
1:15 PM to 2:30 PM
Dallas A3

Getting the Word Out on How to Care for Traumatized Children
(Train/Ed/Dis, Comm/Int-Dev/Int-Pub Health, Lifespan, I, N/A)

Brymer, Melissa, PhD, PsyD; Griffin, DeAnna, MA; Briggs-King, Ernestine, PhD; Gurwitch, Robin, PhD

1National Center for Child Traumatic Stress at UCLA, Los Angeles, California, USA
2National Center for Child Traumatic Stress, Los Angeles, California, USA
3Duke University Medical Center/National Center for Child Traumatic Stress, Durham, North Carolina, USA
4Duke University Medical Center, Durham, North Carolina, USA

Our understanding of how children are impacted by traumatic events has advanced over the past decade in the scientific field, but expanding these findings to community caregivers remains a challenge. This panel will discuss innovative strategies the National Child Traumatic Stress Network is using to help child-serving providers understand the prevalence of child trauma and the ways they can be part of the solution. One panelist will discuss how to create social media campaigns to grab attention and raise awareness on different types of child trauma and to offer resources to address these traumas. Another will highlight how digital storytelling, created by children, teaches us how they were impacted by their traumas and what strategies they found most helpful, allowing caregivers to engage more effectively. A third will highlight how we can improve support to children using measurement-based care to facilitate decision-making, improving access to the most appropriate interventions. Finally, the last will highlight a new approach, called the CARE Model that enhances child and caregiver relationships and promotes behaviors that will foster healthy social connections throughout development. The panelists will highlight how participants can integrate these strategies into their local efforts to build more resilient and trauma-informed communities.

Workshop Presentation
Saturday, November 12
01:15 PM to 02:30 PM
Dallas A2

Practical Implications from a Study of Bereaved Parents, Siblings and Friends following a Terror Event
(Prevent, Death-Terror-Grief, Lifespan, M, Industrialized)

Dyregrov, Atle, PhD; Dyregrov, Kari, PhD

1Center for Crisis Psychology, Bergen, 5013, Norway
2Center for Crisis Psychology, Bergen, Bergen, Norway

Following the 2001 July terror at Utøya in Norway, 220 bereaved parents, siblings and close friends have been followed for 3.5 years (Dyregrov et. al. 2015). The study is a longitudinal study with three time points, and contains rich quantitative and qualitative data. The main results from this study will be presented and different practical implications regarding future follow-up after mass-death will be outlined. In addition, the proactive follow-up model that was implemented by the Norwegian Authorities will be discussed in a cultural and user perspective. Sample handouts for this model will be used as background for discussion with the participants on how to best assist the groups both early on following the disaster and over time. What is appropriate assistance in the early period post-loss, how early should more professional or therapeutic assistance start? How should the balance between individual, family or group work be? As the context for follow-up differ from country to country, what are the ramifications from different organisation of disaster help in different “cultures”? Suggestions for adaptations of the program to diverse settings will be discussed based on audience interaction.
Oral Paper Presentations  
Saturday, November 12  
1:15 PM to 2:30 PM  
Houston Ballroom B

Child Trauma Paper Session

Cumulative Childhood Adversity and Revictimization on the Street: The Experience of Mentally Ill Homeless Individuals in Five Canadian Cities  
(Clin Res, CPA-CSA-Chronic-Pub Health, Adult, A, N/A)

Edalati, Hanie, PhD¹; Nicholls, Tonia, PhD¹; Crocker, Anne, PhD²; Roy, Laurence, PhD²; Patterson, Michelle, PhD³  
¹University of British Columbia, Coquitlam, British Columbia, Canada  
²McGill University, Montréal, Quebec, Canada  
³Simon Fraser University, Burnaby, British Columbia, Canada

Many homeless individuals were the victims of severe Childhood Adversity (CA) which increases the risk of running away from home at early ages and ultimately, homelessness. Living on the street, poverty, risky behaviours (e.g., drug use, prostitution), and psychiatric illnesses each increase the likelihood of victimization. Continued exposure to victimization hinder adequate recovery from past trauma, contributing to frequent cycling between community (e.g., shelters, emergency rooms) and criminal justice services. We used data from the At Home/Chez Soi research demonstration project, the world's largest trial of Housing First, to describe the characteristics of 2255 mentally ill homeless individuals sampled from five major Canadian cities in relation to their CA history and victimization on the street. In particular, we investigated whether exposure to cumulative CA increases the risk of victimization on the street controlling for the effect of demographic factors, homelessness characteristics, and psychiatric disorders. Results from logistic regression models indicate that cumulative CA is a strong risk factor for being the victim of robbery (OR = 1.10; p < .001), threat (OR = 1.14; p < .001), and physical (OR = 1.12; p < .001) and sexual (OR = 1.16; p < .001) assaults. These findings support the need for trauma-informed approaches within services for homeless individuals.

One Question Can Predict Outcome In Trauma-Focused CBT: “Do You Think We Have Found A Good Way to Work on Your Difficult Thoughts and Feelings?”  
(Clin Res, Affect/Int-CPA-CSA-Clinical Practice, Child/Adol, I, Industrialized)

Ormhaug, Silje, PhD¹; Jensen, Tine, PhD²  
¹Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Norway, Norway  
²University of Oslo, Oslo, Norway, Norway

Objective: Studies have shown that the strength of youth-rated therapeutic alliance predicts outcome in trauma-focused CBT (TF-CBT), whereas therapist-rated alliance does not. Furthermore, therapist-rated alliance does not overlap with youth perspectives, indicating that therapists are not good at judging youth’ perceptions of the alliance. The aim of this study was to investigate the predictive value of one trauma-focused alliance question in order to find a feasible way therapists can monitor youth-perceived alliance. Method: Data is derived from a larger effectivenes study in Norway where 79 youth were randomized to the TF-CBT condition. After six sessions, the youth responded to the following question: “The therapist and I have found a good way to work on the difficult thoughts and feelings I have after what happened”. The question was rated on a 4-point likert-scale. Outcome was assessed after session 15. Results: Higher score on the trauma-focused alliance question predicted lower PTSS post-treatment. Conclusions: This finding indicates that youth’ perceptions of the degree to which they collaborate with the therapist to reduce their PTS symptoms is an important predictor of outcome, and that therapists may be able to monitor this during the treatment process with only one question.

Agreement on Child Traumatic Stress Symptoms after Pediatric Burn Injury: The Role of Parents’ own Stress Reactions  
(Assess Dx, Acc/Inj-Fam/Int, Lifespan, M, Industrialized)

Egberts, Marthe, MSc¹; van de Schoot, Rens, PhD²; Geenen, Rinie, PhD²; Van Loey, Nancy, PhD¹  
¹University of Amsterdam, Amsterdam, Netherlands  
²University of Groningen, Groningen, Netherlands
Association of Dutch Burn Centres and Utrecht University, Beverwijk, Noord-Holland, Netherlands

Utrecht University, Utrecht, Netherlands

Assessment of a child’s traumatic stress reactions after pediatric burn injury is complicated by informant disagreement and the possible distorting influence of parental stress symptoms. We examined the prevalence of child and parental traumatic stress symptoms within the first month and 3 months postburn. Moreover, agreement between children, mothers and fathers regarding child symptoms was examined, as well as the role of parents’ symptoms in the perception of their child’s symptoms. Child, mother, and father reports of 100 children (8-18 years old) were analyzed within a Structural Equation Model. Results indicated that a minority of children experienced clinically significant traumatic stress symptoms, while the occurrence of parental symptoms was higher. Agreement on child symptoms varied substantially. Moreover, in mothers, traumatic stress symptoms were independently associated with their ratings of child symptoms in the first month postburn, regardless of children’s self-reported symptoms. Three months postburn, this was the case for both parents. In conclusion, mothers’ reactions to pediatric burn trauma seem to influence their perception of child symptoms, while later on, this is also the case for fathers’ reactions. Findings will be discussed in terms of the need to include multiple informants in assessing child symptoms in pediatric burn care.

Trajectories of Self-Regulation Symptoms among Child Maltreatment Survivors: Findings from a Multisite Study
(Clin Res, Affect/Int-CPA-Chronic-Res Meth, Lifespan, M, Industrialized)

Lauterbach, Dean, PhD1; Allen, Brian, PsyD2; Poehacker, Stefanie, Doctoral Student1; Phillips, David, Doctoral Student1
1Eastern Michigan University, Ypsilanti, Michigan, USA
2Penn State Hershey Medical Center, Hershey, Pennsylvania, USA

Self-regulation refers to the ability to monitor one’s affect and behaviors, evaluate those experiences, and use this information to modify unpleasant affect and dysfunctional behaviors. Difficulties with self-regulation can arise as a consequence of childhood maltreatment and predict a number of later-life variables including social competence and likelihood of revictimization. While early research indicates that self-regulation is stable over time among infants and children no studies have examined the stability/change of self-regulation across a long time frame among maltreated children. Child maltreatment and the difficulties that result from maltreatment such as difficulties with self-regulation are important public health issues. Therefore, this study was conducted to examine the number and shape of trajectory classes of self-regulation over time in a sample of 1354 maltreated and at-risk youth using Growth Mixture Modeling. Subjects were assessed biannually from age 4 to 18. Results support the viability of a 4-class model composed of a low stable group, an increasing severity group, a decreasing severity group and a chronically severe group. Findings will be presented on the impact of ongoing maltreatment, victim age, and maternal depression on stability/change in self-regulation and the effect of symptom trajectory on later life symptoms of posttraumatic stress.

Oral Paper Presentations
Saturday, November 12
1:15 PM to 2:30 PM
Houston Ballroom C

Military Two Paper Session

PTSD Care among Veterans with and without Co-occurring Substance Use Disorders
(Practice, Sub/Abuse-Mil/Vets, Adult, I, Industrialized)

Mansfield, Alyssa, PhD, MHA, MPH1; Greenbaum, Mark, MS, MA2; Schaper, Kim, MA1; Banducci, Anne N., PhD3; Rosen, Craig, PhD4
1National Center for PTSD- Pacific Island Division, VA Pacific Island Healthcare System, Honolulu, Hawaii, USA
2VA Palo Alto Health Care System/Stanford University School of Medicine, Menlo Park, California, USA
3National Center for PTSD, VA Palo Alto Health Care System/Stanford University School of Medicine, Stanford, California, USA

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)
Objective: Comorbid substance use can affect PTSD care. We examined whether a co-occurring substance use disorder (SUD) diagnosis affected Veterans’ access to PTSD specialty care, or impacted likelihood of receiving 8+ sessions of outpatient psychotherapy for PTSD. Method: This retrospective cohort study examined administrative data for veterans who were diagnosed with and accessed care for PTSD in a VA facility between October 1, 2008, and September 30, 2010 (N=424,211). Results: After controlling for demographic, clinical and facility covariates, veterans diagnosed with co-occurring PTSD and alcohol (OR=1.17, 95% confidence interval [CI] =1.13-1.20), drug (OR=1.05, CI=1.01-1.09), or both alcohol and drug (OR=1.33, CI=1.28-1.38) disorders were more likely to receive outpatient PTSD specialty care compared to veterans with PTSD only. Conversely, for inpatient PTSD care, dually-diagnosed veterans were less likely to be treated in PTSD specialty units than veterans with PTSD alone. Percent completing 8+ sessions of outpatient PTSD psychotherapy within 14 weeks was nearly double among veterans with PTSD and SUD versus PTSD only (24% vs. 13%, respectively). Conclusions: Among veterans seeking treatment for PTSD within VA, co-occurring SUD does not appear to be a barrier to accessing outpatient speciality PTSD treatment or receiving adequate PTSD psychotherapy services.

Interaction of Oxytocin Receptor Gene and Social Support in Predicting Resilience in U.S. Military Veterans

(Spiewak, Lauren, PhD); Han, Shizhong, PhD; Southwick, Steven, MD; Krystal, John, MD; Gelernter, Joel, MD; Pietrzak, Robert, PhD

National Center for PTSD Clinical Neurosciences Division/Yale University Dept. of Psychiatry, West Haven, Connecticut, USA

Interacteffects of the rs53576 genotype and social support in predicting resilience. Resilience was operationalized as the residual score between actual and predicted past-month psychological distress (i.e., posttraumatic stress, major depressive, and generalized anxiety disorder symptoms) based on cumulative lifetime trauma burden. Results revealed significant main effects of the OXTR rs53576 genotype and social support (both \(p<0.001\)), as well as a significant interaction of rs53576 genotype and social support (\(p<.01\)) in predicting resilience. Among veterans with 2 minor alleles (AA), higher levels of social support were associated with greatest resilience (Cohen’s \(d=0.54, 95\% CI=0.26-0.83\)). Results suggest that OXTR gene polymorphisms may inform models of resilience in military veterans.

Effectiveness of Prazosin on PTSD Symptoms during Prolonged Exposure (PE) Therapy with Veterans

(Myers, Ursula, MS, PhD Student); Keller, Stephanie, PhD; Tuerk, Peter, PhD

San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology, San Diego, California, USA

Ralph H. Johnson VA Medical Center, Cleveland, Ohio, USA

Ralph H. Johnson VA Medical Center, Charleston, South Carolina, USA

Recent meta-analyses have supported the use of prazosin, an alpha-1 adrenergic receptor blocker, to treat insomnia, trauma-related nightmares, and daytime hyperarousal symptoms for individuals with posttraumatic stress disorder (PTSD). Prescription of prazosin for veterans with PTSD has increased every year in the Veteran’s Healthcare Administration.
(VHA) since 2000. However, little is known about the effectiveness of prazosin in standard care and in combination with gold-standard PTSD treatments, such as PE. This study aimed to look at the relationship of prazosin to PTSD symptom change over the course of PE in a VHA PTSD specialty clinic with 161 veterans. Analyses indicate that 46% of veterans were prescribed prazosin at the start of psychotherapy. After controlling for baseline PTSD symptoms (PTSD checklist scores; PCL), veterans who received prazosin demonstrated less improvement in PE compared to veterans who did not receive prazosin [mean PCL change = 15.31 (d = 1.13) vs. 19.42 (d = 1.58); B = 4.46, t(159) = 2.38, p = .019]. Prazosin dose was correlated with pre-treatment PCL scores (r = .252, p = .018), but not with post-treatment after controlling for pre-treatment PCL (r = .135, p = .092). These results support the need for more examination of both efficacy and effectiveness of prazosin on PTSD symptoms above- and-beyond evidence-based psychotherapy.

**Modulating Extinction of Conditioned Fear by Transcranial Direct Current Stimulation in Combat Veterans with PTSD**

(Tech, Bio/Int-Mil/Vets, Adult, A, N/A)

Reddy, Madhavi, PhD; van ‘t Wout, Mascha, PhD; Sheu, M. Tracie, PhD

1The University of Texas Health Science Center at Houston, Houston, Texas, USA
2Brown University Warren Alpert Medical School, Providence, Rhode Island, USA
3Alpert Medical School of Brown University, Providence, Rhode Island, USA

Exposure-based therapy parallels extinction learning of conditioned fear in that both rely on repeated exposure to feared stimuli without occurrence of the feared consequences. The ventromedial prefrontal cortex (vmPFC) is a potential site for the consolidation of extinction learning and subsequent retention of extinction memory. We explored whether non-invasive electrical stimulation, i.e. transcranial direct current stimulation (tDCS), during extinction training or during extinction reconsolidation improves subsequent extinction recall in 28 Veterans with PTSD. A 2-day Pavlovian fear conditioning, extinction, and recall paradigm while skin conductance activity was continuously measured was completed. All participants received 2mA anodal tDCS over FA3 targeting the vmPFC with half receiving stimulation during extinction training and half receiving stimulation during extinction consolidation. Normalized skin conductance changes were analyzed using linear mixed models. During early recall, those who received tDCS immediately following extinction training showed slightly lower skin conductance reactivity in response to previously extinguished stimuli as compared to those who received tDCS during extinction training, generating a medium effect size. These data suggest that tDCS during consolidation of extinction may improve memory for extinction in Veterans with war-related PTSD.
CONCURRENT SESSION ELEVEN

Master Methodologist
Saturday, November 12
2:45 PM to 4:00 PM
Dallas B/C

Spotify Mental-Health for Depression and Anxiety: Personalise, Engage & Connect
(Clin Res, Anx-Pub Health-Res Meth-Tech, Lifespan, M, Industrialized)

Riper, Heleen, PhD
Vrije Universiteit, Amsterdam, Netherlands

The digitalisation of the treatment of mental disorders such as depression and anxiety has gained momentum over the last two decades. Riper and colleagues have shown with ample studies that online prevention and treatment, for example by means of cognitive behavioural therapy, can be (cost) effective. However, ample challenges remain such as to assess for whom digital treatments work or not, how they work and whether they can work even better than face-to-face therapies. eMental-health, including mobile health, has led to numerous innovations but its implementation in routine care appears still limited. One could argue that this is due to a question of time as it takes long time to implement innovations in routine care. Under the umbrella of an ‘agile science’ approach Riper will explore however a different line of reasoning, namely that we need not only to innovate our treatments but our scientific methods for the development (‘co-creation’), evaluation (‘beyond RCT’s only’) and implementation (‘evidence based implementation strategies’) of digital interventions as well. The application of mobile devices that support virtual and augmented realities, sensors, and gaming will become an integral component of studying and providing these interventions. These enable a more personalized approach of depression and anxiety by patients and therapists alike. Riper will discuss these innovations by beyond state of the art anxiety research, specifically related to stress and stress related disorders including routine care examples as well.

Symposium
Saturday, November 12
2:45 PM to 4:00 PM
Dallas A2

PTSD Coach around the World: a Global Perspective on a Smartphone App Designed for Self-management of PTSD Symptoms
(Tech, Clin Res, Adult, M, Industrialized)

van der Meer, Christianne, PhD Candidate; Ruzek, Josef, PhD
1Academic Medical Center, University of Amsterdam, Amsterdam, Noord-Holland, Netherlands
2VA Palo Alto Health Care System, National Center for PTSD/Stanford University, Menlo Park, California, USA

Apps are promising agents to improve global mental health care after trauma. One of the most well-known apps in the field of psychotrauma is the PTSD Coach, developed by the Veterans Affairs National Center for PTSD. The PTSD Coach is designed for self-management of PTSD symptoms and offers psychoeducation, information on seeking help, a self-assessment, and various tools and exercises to cope with PTSD. This symposium brings together international studies on the PTSD Coach in both PTSD patient and non-patient adult samples. Presenters address the academic challenges in developing and evaluating apps and show exciting possibilities on how apps may enhance mental health care after trauma. Filip Arnberg will share experiences from adapting the PTSD Coach to Swedish and present results of a pilot-test in a non-patient sample. Julia Schellong will focus on measuring usability of mobile apps in German veterans and civilians with PTSD. Christianne van der Meer will present results of a RCT on the efficacy and usage patterns of the Dutch version of the PTSD Coach in traumatized health care professionals. Finally, Eric Kuhn will show an overview of the key results of multiple studies covering the efficacy, feasibility and acceptability of the U.S. PTSD Coach in traumatized samples. An overarching and interactive discussion with the audience will be led by Prof. Josef Ruzek.
Health care professionals are repeatedly exposed to stressful incidents during their work. This repeated exposure may result in a heightened risk for developing posttraumatic stress symptoms (PTSS). A randomized controlled trial (RCT) was designed to investigate the effectiveness of the Dutch PTSD Coach (called the SUPPORT Coach) in reducing PTSS in health care professionals with at least a mild level of PTSS (a score of ≥1 on the PC-PTSD-5; online screening). In addition, individual usage patterns and user satisfaction were examined. Of the 1171 health care professionals (e.g. ambulance workers and hospital-based health care providers) that completed the online screening, 287 (24.5%) participants experienced at least a mild level of PTSS and were randomized into the intervention condition (one month access to the SUPPORT Coach, N = 143) or the control condition (no access to the SUPPORT Coach, N = 144). Results showed that 90% of the participants in the intervention group used the app, found the app easy to use (81%) and would recommend it to others (62%). In this presentation, results on the effectiveness of the SUPPORT Coach in reducing PTSS (as assessed with the PCL-5) will be discussed, and the academic challenges in developing and investigating smartphone apps in the field of psychotrauma will be shared.

A Program of Research on the PTSD Coach Mobile App
(Clin Res, Pub Health-Tech, Adult, M, Industrialized)

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PTSD Coach is a mobile app for self-management of PTSD symptoms. Since it was released (April 2011), PTSD Coach has been downloaded over 230,000 times in 95 countries. Here we describe our program of research on PTSD Coach, highlighting three key studies. The first is a pilot randomized controlled trial (RCT) that demonstrated the app’s feasibility, acceptability, and potential efficacy for reducing PTSD symptoms among individuals (N = 60) with elevated PTSD symptoms. The second tested the efficacy of PTSD Coach in a full-scale RCT (N = 120). PTSD Coach use resulted in significantly greater improvements compared to waitlist on PTSD symptoms (d = .42) and other important outcomes. The third is a pilot RCT evaluating PTSD Coach with VA primary care patients (N = 20). Participants were randomized to PTSD Coach with or without four brief sessions of clinician support. Overall, PTSD Coach was well received and showed benefit on symptom reduction and increased acceptance of a referral to specialty mental health treatment. Clinician support appeared to enhance PTSD symptom improvement (d = .54, n.s.) and acceptance of referral to specialty mental health (φ = .66, p < .05). Lastly, we discuss exciting future directions of our research program.

Symposium
Saturday, November 12
2:45 PM to 4:00 PM
Dallas A3

Utilizing Implementation Science to Develop Trauma-Informed Child Welfare Systems

Dean, Kristin, PhD

Rogers, Edwin, PhD, ABPP

Cherokee Health Systems, Knoxville, Tennessee, USA

University of Tennessee, Knoxville, Tennessee, USA

Tennessee reported 10,377 children were abused or neglected in 2013, a rate of 7 per 1,000 children. Of those, 68.2% were neglected, 12.3% were physically abused, and 25.2% were sexually abused. Tennessee currently has approximately 8,000 of children in the child welfare system, the vast majority of whom are adjudicated as dependent/neglected. This symposium will outline the development of multi-level interventions driven by implementation science that targeted increasing identification of exposure to traumatic events and subsequent traumatic stress symptomatology and implementation of evidence-based trauma treatment for children and youth served by the child welfare system. We will outline the
National Child Traumatic Stress Network's Community-Based Learning Collaborative model to teach the Attachment, Self-Regulation, and Competency (ARC) framework to community therapists and their team of child welfare staff. We also focus on how the Resource Parent Curriculum for foster/resource parents who are caring for the children in custody increases caregiver understanding of the impact of trauma and improves parenting strategies through a 16-week group curriculum. Finally, we focus on child welfare workers and how we used a Breakthrough Series Collaborative model to implement screening of young children for trauma and developing a trauma-informed treatment plan.

**Implementing the Resource Parent Curriculum to Strengthen Trauma-Informed Parenting in the Child Welfare Community**

(Commun, Train/Ed/Dis, Foster Parents, I, Industrialized)

**Dean, Kristin, PhD**

*Cherokee Health Systems, Knoxville, Tennessee, USA*

As consultants to the child welfare system, the Centers of Excellence (COEs) for Children in State Custody often hear from foster/resource families that they are unprepared to handle the challenging behaviors of children and youth who come into their homes. Families often feel ill equipped to meet the child’s complex needs since they do not know the child’s full history or the impact of that history on the child’s puzzling, atypical, and sometimes scary behavior. To answer that need, in concert with the National Child Traumatic Stress Network and partnering with a local foster care continuum agency, we developed a plan for statewide implementation of the Resource Parent Curriculum (RPC) Caring for Children Who Have Experienced Trauma: A Workshop for Resource Parents. The RPC is a 16-hour curriculum that provides basic psycho-education about trauma, its impact on the brain and development, implications for relationships and parenting, and how resource parents can advocate for the children in their home to receive trauma-informed care from professionals and child-serving agencies in their communities. We have been implementing the program with our partners across Tennessee and will share resource family feedback on the curriculum and ability to apply the program strategies with children in their home.

**Breaking Down Silos: Developing Trauma-Informed Care through a Community Based Learning Collaborative**

(Commun, CPA-Comm/Int-Complex, Child/Adol, I, Industrialized)

**Moser, Michele, PhD**

*ETSU Center of Excellence, Johnson City, Tennessee, USA*

The Attachment, Self-Regulation, and Competency (ARC) treatment framework is a “whole-systems” intervention which focuses on children and youth with complex trauma histories and attachment difficulties. ARC encourages intervention in layers to build a safe and secure caregiving system around a child. The layers include the child, caregivers, treatment providers, child welfare workers, teachers, and case managers. We developed an ARC Community Based Learning Collaborative (CBCL) to bring these layers together to create a safe and supportive group experience and environment in which members of the child’s caregiving system can begin to build a common language and understanding of trauma that results in collaboratively and coordinated trauma informed interventions to improve symptoms and decrease disrupted placement for youth in care. The overall goal of the ARC CBLC is to build highly functioning teams whose members have the knowledge and skills to apply the core principles of the ARC framework in accordance with their roles in the child’s caregiving system to promote healing and resiliency. This session will outline the development and implementation of the ARC CBLC, outcomes, and lessons learned.

**Using Improvement Science to Implement Trauma-Informed Screening for Young Children in Child Welfare**

(Commun, Train/Ed/Dis, Child/Adol, I, Industrialized)

**Hoffmann, Melissa, PhD**

*University of Tennessee, Memphis, Tennessee, USA*

Effective, consistently delivered trauma-informed and evidence-based screening, assessment, and treatment for infants and young children has been a gap in the children’s system of care. In our state, one...
in three children brought into state custody is under four years old, and the number of infants born with Neonatal Abstinence Syndrome (NAS) has increased ten-fold over the last ten years leading to an increase in the number of babies placed in custody. Trauma in infants and young children is of particular concern given the proliferation of research demonstrating its negative impact on early brain development and its association with health, mental health, and educational problems in childhood and later in life. Our state child welfare system had no practice currently in place to screen for trauma experiences in infants and young children and little access to mental health resources for this age group. The Breakthrough Series Collaborative is a quality improvement model that has demonstrated effectiveness in developing promising practices through a collaborative learning model to make practice changes in child-serving agencies. The use of the BSC methodology to address trauma screening, assessment, case planning, and intervention for young children will be presented in this session. Concrete promising practices tested by BSC teams will be shared.

**Staying Strong with Schools: A School Based Intervention for Military Connected Children**

(Commun, Clin Res-Commun, Child/Adol, I, Industrialized)

Bui, Eric, MD PhD¹; Zakarian, Rebecca, BA²; Kelly, Hope, BA²; Simon, Naomi, MD¹; Ohye, Bonnie, PhD¹

¹Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA
²Massachusetts General Hospital, Boston, Massachusetts, USA

Military deployment and reintegration may result in behavioral and emotional disturbances among military-connected children (MCC; e.g. Chandra et al. 2011). Based on ecological models of resilience in childhood (Masten & Powell 2003), we have developed a civilian school-based intervention, “Staying Strong With Schools (SSWS)”, to promote resilience in MCC. SSWS aims to create direct support from teachers to military children, create support to military parents, and increase recognition and support to military children and families from the school community. It includes a 60-min training for all school professionals at the beginning of school, and a year-long training and supervision of the school guidance counselor. We will present parent and children data from a randomized controlled trial examining the efficacy of SSWS (5 active vs. 5 control schools). A total of n=57 military dyads (parents: 62% women, Mean (SD) age = 38.5 (7.0); children: 61% girls, Mean (SD) age = 8.2 (2.2)) were enrolled. Outcomes at the parental level included parental distress, parental sense of competence, and general family functioning; and outcomes at the children’s level included social support and psychosocial functioning. Preliminary results from a mixed model revealed a significant Group X Time interaction for children’s perceived social support (B(SE)=12.8(4.7), p<0.01).

**Symposium**

Saturday, November 12

2:45 PM to 4:00 PM

Dallas D1

**Quality of Parenting and Neurobiological Outcomes in Traumatized Children**

(Bio Med, CPA-Intergen-Neuro-Gender, Lifespan, M, Industrialized)

Jovanovic, Tanja, PhD¹; Vance, Alexander, BA¹; Bradley, Bekh, PhD²

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

Intergenerational effects of trauma exposure and posttraumatic stress disorder (PTSD) have been demonstrated in several studies that have found increased vulnerability in children of parents with PTSD. Putative mechanisms for these effects include parenting behaviors that may shape the neurobiological development of their children that in turn increases their vulnerability for PTSD. In this symposium speakers will describe statistical methods for quantifying the quality of parenting in a low-income, high-trauma mother-child dyads. The next speaker will describe how these parenting variables are associated with child psychophysiological markers of anxiety, such as heart rate and heart rate variability during an anxiogenic experiment. The last author will examine the effects of trauma exposure and parenting variables on brain activity in children during an emotion regulation functional MRI task.
Finally, the discussant will provide a synopsis of the intergenerational effects of trauma and parenting on neurobiological risk factors in children.

Latent Profile Analysis of Parenting Behavior in a Traumatized Population
(Bio Med, CPA-Res Meth-Intergen-Gender, Adult, M, Industrialized)

Nugent, Nicole, PhD1; Cross, Dorthie, PhD2; Vance, Alexander, BA2; Bradley, Bekh, PhD3; Jovanovic, Tanja, PhD1
1Brown Medical School, Providence, Rhode Island, USA
2Emory University School of Medicine, Atlanta, Georgia, USA
3Atlanta VAMC/Emory University, Decatur, Georgia, USA

Parenting behaviors are believed to be one mechanism for intergenerational transmission of trauma. Parenting studies have applied a variable-centered approach, examining how qualities like parental warmth might be related to parent trauma history. As parenting behaviors are exhibited (and experienced) in concert, it is important to characterize heterogeneous profiles of numerous parenting indicators. Latent Profile Analysis was conducted in MPLus7.4 to examine parenting in 124 mothers of an 8-12 year old. Parenting indicators included subscales from the Parenting Stress Index (PSI), Parenting Scale (PS), Parenting Questionnaire (PQ), and Child Abuse Potential Inventory (CAPI). Analyses identified three latent profiles: positive parenting class (47% of sample: low in defensiveness, distress, abuse potential, unhappiness, loneliness, ego strength; high in warmth), risk parenting class (34% of sample: high in defensiveness, distress, abuse potential, unhappiness, loneliness, ego strength; low in warmth), and moderate parenting class (19% of sample: moderate scores). Mothers in the risk parenting class reported significantly higher trauma exposure based on the Childhood Trauma Questionnaire and the Traumatic Events Inventory than women in the moderate and positive parenting classes; Wald ps <.001. Implications will be discussed.

Negative Parenting and Child Autonomic Nervous System Responses

Vance, Alexander, BA1; Cross, Dorthie, PhD1; Nugent, Nicole, PhD2; Bradley, Bekh, PhD3; Jovanovic, Tanja, PhD1
1Emory University School of Medicine, Atlanta, Georgia, USA
2Brown Medical School, Providence, Rhode Island, USA
3Atlanta VAMC/Emory University, Decatur, Georgia, USA

Negative parenting is strongly associated with risk for children developing fear-based disorders throughout life. Because dysregulated autonomic nervous system (ANS) response to perceived threat underlies psychophysiology in fear-based disorders, we investigated the relationship between maternal parenting quality and cardiovascular response to anxiogenic contexts in their children. We recruited mother-child dyads (n=87) from a predominately African American, urban population. Child heart rate (HR) and heart rate variability (HRV) were recorded using electrocardiogram (ECG) during an acoustic startle paradigm. We assessed parenting quality as highly negative, moderately negative, or positive using latent class analysis of parenting self-report measures. Results indicated highly negative parenting was associated with blunted HR during startle (F(2,85)=5.28,p=0.007), and moderately negative parenting decreased resting HRV (F(2,85)=7.02,p=0.002). Results remained highly significant (p<0.001) after controlling for demographics and child trauma exposure. Dysregulated ANS responses were observed in children of mothers with poor parenting quality, suggesting negative parenting has robust effects on child neurobiology. Given HRV is associated with emotion regulation, negative parenting can lead to intergenerational vulnerability for fear-based disorders.
Exposure to Violence and Parenting Quality Influence Inhibition-related Activation in the Developing Brain


van Rooij, Sanne, PhD; Stevens, Jennifer, PhD; Kim, Ye Ji, BA; Ely, Timothy, BSc; Jovanovic, Tanja, PhD
Emory University School of Medicine, Atlanta, Georgia, USA

Childhood trauma, whether it is abuse or exposure to violence, is a well-known risk factor for the development of psychiatric disorders. The objective of this study was to investigate the effects of trauma exposure on the developing brain. In this study, 29 children age 8-13 years underwent functional MRI while they performed an emotional Go/NoGo task. After quality control, data of 16 children was available for analyses. Violence exposure (VEX-R) and parenting quality was also assessed. Exposure to violence correlated positively with inhibition-related activation in limbic structures (amygdala, hippocampus), motor control regions (basal ganglia, right inferior frontal gyrus), and the salience network (anterior cingulate cortex, insula). Findings were significant with p<0.01 and an FWE-corrected cluster size of k>184. Preliminary findings in 10 children showed that parenting quality is associated with more inhibition-related activation in limbic regions, and motor control regions. Our findings show a relationship between trauma exposure and alterations in the neurocircuitry underlying fear and response inhibition in children. This neurocircuitry has been implicated in many psychiatric disorders. Increased understanding of the effects of childhood trauma on the developing brain is essential for early detection of individuals at risk for developing psychiatric disorders.

Hyperactive Defense-Survival Circuitry and Brain Volumes: A 3-Generation Study

(Pub Health, Anx-CPA-Depr-Pub Health, Lifespan, M, N/A)

Grillon, Christian, PhD; Warner, Virginia, DrPH; Bansal, Ravi, PhD; Hao, Xuejun, PhD; Liu, Jun, PhD

1National Institute of Mental Health/NIH, Bethesda, Maryland, USA
2Columbia University and New York State Psychiatric Institute, New York, New York, USA
3University of Southern California, Los Angeles, California, USA
4New York State Psychiatric Institute, NYC, New York, USA

Objective: Hyperactive defense-survival circuits respond to threatening childhood family environments, have been shown to be associated with risk for depression and could be an innate familial trait that is transmitted across generations. We tested the hypothesis in our 30-year, multigenerational, study that hyperactive circuitry, measured by startle, decreased brain volume in families at high and low risk for depression. Methods: At our 20 year follow up we conducted startle tests on 110 individuals in generation 2 (G2) and 79 individuals in generation 3 (G3) who were at either a high or a low familial risk for depression due to generation 1 (G1) either having or not having depression. The startle experiment consisted of three conditions: safe, threat (anticipation of an unpleasant air blast), and intertrial interval (ITI). We genotyped the polymorphic region of the serotonin transporter gene for the short and the long alleles. At the 25 year follow up we collected the structural MRI data. Clinical assessments were completed at all assessments. Results: Enhanced contextual startle, i.e. startle during ITI, was associated with smaller amygdala and hippocampal volumes, the short-short/short-long genotypes of the serotonin transporter (5-HTTLPR), threatening family environment, impaired memory and G2 and G3 startle were associated with each other.

Symposium
Saturday, November 12
2:45 PM to 4:00 PM
Dallas D2

From Epidemiology to Treatment Delivery and Dissemination: The Influence of Conditions Comorbid with PTSD

(Practice, Depr-Mil/Vets, Adult, M, Industrialized)

Walter, Kristen, PhD; Davis, Joanne, PhD
1Naval Health Research Center, San Diego, California, USA
2University of Tulsa, Tulsa, Oklahoma, USA
Posttraumatic stress disorder (PTSD) occurs more often with comorbid conditions than it occurs alone; however, comorbid conditions may not be assessed or considered relative to their frequency. This symposium integrates results from a variety of epidemiological approaches in order to translate knowledge from epidemiology to treatment delivery and dissemination. We will first feature epidemiological data from active-duty service members regarding conditions comorbid with PTSD to help identify areas for future treatment development efforts. Next, data showing mental health treatment preferences among veterans with PTSD and comorbid conditions, such as depression and insomnia, will be presented. This presentation will also highlight treatment preferences for web-based and application-based interventions in this sample. We will then demonstrate how comorbid conditions can affect response to evidence-based PTSD treatment. More specifically, how obstructive sleep apnea affects outcome in cognitive processing therapy (CPT). The symposium will conclude by illustrating how to utilize explicit case formulation to guide deviations from the CPT protocol, with particular emphasis on use of this tool in cases involving comorbid conditions. Collectively, these presentations aim to inform future treatment development and delivery to optimally address conditions commonly comorbid with PTSD.

Sleep Disturbance, PTSD and Depression: Leveraging Client Preferences for Treatment Modality in the Face of Comorbidity
(Clin Res, Depress-Sleep-Gender, Adult, M, Industrialized)

Gutner, Cassidy, PhD1; Pedersen, Eric, PhD2; Drummond, Sean, PhD3
1National Center for PTSD, Boston VA Medical Center and Boston University School of Medicine, Boston, Massachusetts, USA
2RAND, Santa Monica, California, USA
3Monash University, San Diego, California, USA

Sleep disturbance, posttraumatic stress disorder (PTSD), and depression serve as primary and comorbid disorders. Understanding the relationship between insomnia and comorbid conditions will provide a greater understanding of the current needs of veterans and future implementation and dissemination efforts of EBTs and may help elucidate how to best target these symptoms using preferred modalities to increase use. The present study examined the relationship between sleep disturbance, PTSD and depression in Veterans and their mental health treatment preferences. 622 Veterans (17% women) completed an online baseline survey as part of a larger intervention study. The majority (69.9%) have not utilized the VA in the past month despite clinically significant levels of sleep disturbance, PTSD and depression as primary disorders and as comorbidity. Furthermore, in the presence of comorbidity with sleep disturbance, there is a significant preference for sleep treatment over and above PTSD (t (193) = 3.60, p < .001) and depression treatment (t (213) = 3.40, p = .001). The data demonstrate a significant proportion of Veterans have a preference in treatment modality for web-based or application based treatment at equal or greater rates to in person treatment. Results from these data have important implications for implementation and dissemination.

Using Explicit Case Formulation to Improve Cognitive Processing Therapy for PTSD
(Clin Res, Clinical Practice-Cog/Int-Complex, Adult, M, Industrialized)

Nixon, Reginald, PhD; Bralo, Danielle, BSc Hons Psychology
Flinders University, School of Psychology, Adelaide, South Australia, Australia

Cognitive Processing Therapy (CPT) is one of several protocol-driven evidence-based therapies for PTSD. It is known that clinicians use these therapies flexibly to address comorbidities and challenges during treatment. Thus although deviations from protocols occur, the effects of such deviations are largely unknown. This open trial examines the effect of using explicit case formulation (CF) to guide deviations from the CPT protocol. At the time of writing there are 13 treatment completers, with a goal of reaching N = 30 before November. Treatment comprises up to 15 sessions of CPT with explicit case formulations about the presenting issues developed and shared with the client in early sessions. Therapists are allowed to deviate from the standard CPT protocol when CF indicates the need (e.g., to target comorbid conditions, motivation interviewing to target extreme ambivalence/avoidance). Pre-, posttreatment and 3-month follow-up assessment using the CAPS, PCL, DASS are conducted. Post-
and follow-up assessments are conducted by assessors unaware of treatment status. Protocol deviations are carefully documented. To date clinically significant outcomes are being achieved (treatment effect sizes > 1.7 for PTSD, > 1.1 for depression). Findings and implications for improving delivery of protocol-driven PTSD treatments will be discussed.

**Response to Cognitive Processing Therapy in Veterans with and without Obstructive Sleep Apnea**

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

*Mesa, Frank, PhD*  
*Cincinnati VA Medical Center, Cincinnati, Ohio, USA*

Cognitive processing therapy (CPT) is designated as a front-line psychotherapy for posttraumatic stress disorder (PTSD) in military populations. However, a recent review of primary PTSD interventions revealed some limitations to the effectiveness of CPT. One potential target for enhancing CPT outcome is sleep disturbance, a common complaint among individuals with PTSD. Increasingly, elevated rates of obstructive sleep apnea (OSA) have been found in PTSD and veteran samples. Research indicates that fragmented sleep may interfere with emotional processing, an important mechanism of change during CPT. However, the impact of OSA on response to CPT is unclear at this time. In this study, PTSD symptomatology over the course of CPT was examined in veterans with and without a diagnosis of OSA. Following chart reviews, 68 OSA-positive and 276 OSA-negative veterans were identified. Statistical analyses revealed that OSA-positive veterans reported significantly greater PTSD severity over the course of treatment and at posttreatment, indicating that CPT was not as effective for this group compared to veterans without OSA. Additionally, PTSD symptomatology was significantly lower in OSA group members who had access to CPAP. We discuss the implications of these findings for the assessment of sleep and treatment of PTSD in psychological treatment settings.

**Prevalence of Posttraumatic Stress Disorder and Psychological Comorbidities among Active-Duty Service Members in 2006–2013, and Implications for Treatment**

(Pub Health, Mil/Vets, Adult, M, Industrialized)

*Muler, Kristen, PhD*; *Levine, Jordan, MPH*; *Highfill-McBry, Robyn, MPH, MA*; *Navarro, Melissa, BA/BS*; *Thomsen, Cynthia, PhD*

*Naval Health Research Center, San Diego, California, USA*

Posttraumatic stress disorder (PTSD) usually co-occurs with other disorders (Kessler et al., 1995). Moreover, rates of comorbidity are higher for PTSD than for other disorders (Koenen et al., 2008), and may be higher in active-duty service members than among civilians (e.g., Rytwinski et al., 2013). Finally, PTSD diagnoses among active-duty military personnel have increased dramatically since 2000 (Blakely & Jansen, 2013). These findings highlight the importance of understanding the prevalence of conditions comorbid with PTSD among these service members in order to guide and inform treatment. The current study investigated the prevalence of PTSD and comorbid disorders based on the electronic medical records of 523,626 sailors and Marines who entered the military between 2006 and 2013. PTSD was most frequently comorbid with depression (49%), and adjustment (37%), anxiety (36%), and alcohol use disorders (27%). The temporal sequence of comorbid disorders was also examined to potentially guide prioritization of treatment approaches. Results suggest that PTSD was diagnosed first in the medical record in 11 of the 14 (79%) comorbid diagnoses examined. Study findings can aid the development of treatments designed to address disorders comorbid with PTSD, as well as potential prioritization of disorders to target in treatment.
Symposium
Saturday, November 12
2:45 PM to 4:00 PM
Dallas D3

What Do Recent Studies Tell Us about the Distinguishability of PTSD and Complex PTSD in ICD-11?
(Assess Dx, CSA-Chronic-Complex-Refugee, Lifespan, A, Global)

Hyland, Philip, PhD
National College of Ireland, Dublin, Ireland

Proposals are in place to include Complex PTSD (CPTSD) in the 11th revision of the ICD. Numerous studies have begun to assess the distinguishability of CPTSD from “classical” conceptualizations of PTSD utilizing a newly developed self-report scale specific to ICD-11 symptoms of PTSD/CPTSD. Four presentations will detail on-going studies that are advancing understandings regarding the construct validity of CPTSD. The first presentation will provide an overview of findings regarding the construct validity of ICD-11 CPTSD drawn from a number of studies that utilize alternative trauma samples, methodologies, and statistical techniques. The second presentation will outline the results of a study supporting the distinguishability of Complex PTSD from Borderline Personality Disorder among a sample of British clinical patients. The third presentation will present findings regarding the role of trauma-related factors that differentiate CPTSD from PTSD symptoms among an incarcerated sample of Israeli males. The fourth examines the distinctive nature of PTSD and CPTSD among refugees residing in Switzerland. The findings outlined in this symposium highlight the accruing cross-cultural evidence for the construct validity of ICD-11 proposals for CPTSD. Furthermore, these findings present psychometric evidence for a newly developed self-report measure of ICD-11 symptoms of PTSD and CPTSD.

An Assessment of the Construct Validity of ICD-11 Complex PTSD across Multiple Trauma Samples.
(Assess Dx, CSA-Rape-Res Meth-Gender, Adult, A, Industrialized)

Hyland, Philip, PhD1; Shevlin, Mark, PhD2; Elklit, Ask, MSc3; Murphy, Jamie, PhD2; Vallières, Frédérique, PhD4; Garvert, Donn, MS5; Cloitre, Marylene, PhD6; Brewin, Chris, PhD7; Bisson, Jonathan, MD8; Roberts, Neil, DPysch(Clin)9; Karatzias, Thanos, PhD, CPSych(10; Fyvie, Claire, DPysch(Clin)11; Downes, Anthony, PhD12; Jumbe, Sandra, PhD13
1National College of Ireland, Dublin, Ireland
2University of Ulster, Derry, United Kingdom
3University of Southern Denmark, Odense, Denmark
4Trinity College Dublin, Dublin, Ireland
5National Center for PTSD, Menlo Park, California, USA
6National Center for PTSD-Dissemination and Training Division, Menlo Park, California, USA
7University College London, London, United Kingdom
8Cardiff University School of Medicine, Cardiff, Wales, United Kingdom
9Cardiff and Vale University Health Board, Cardiff, United Kingdom
10Edinburgh Napier University & Rivers Centre for Traumatic Stress, Edinburgh, Scotland, United Kingdom
11NHS Fife, Edinburgh, Scotland, United Kingdom
12Betsi Cadwaladr Health Board, Flintshire, Wales, United Kingdom
13Health and Care Research Wales Workforce, Cardiff, Wales, United Kingdom

This presentation reports results from three studies assessing the construct validity of ICD-11 Complex Posttraumatic Stress Disorder (CPTSD). These studies utilize distinct methodologies (archival data and a specific ICD-11 CPTSD questionnaire), unique trauma samples (Danish incest victims and British clinical patients), and alternative statistical analyses (latent class analysis (LCA), and confirmatory factor analysis (CFA)) in order to test the construct validity of CPTSD. Among the Danish survivors of incest assessed for CPTSD using archival data, CFA results provided support for the factorial validity of ICD-11 proposals. Differential predictive effects were identified between a range of covariates and PTSD and CPTSD supporting the distinctive nature of these disorders. In a second study utilizing a clinical
sample of the British population, the factor structure of ICD-11 CPTSD was tested using a newly developed self-report scale designed to capture the specific ICD-11 symptoms. Results provided support for both the factorial and concurrent validity of CPTSD. Finally, in study three, results of an LCA identified two distinct groups whose symptom profiles were consistent with PTSD and CPTSD. Consistent with ICD-11 proposals, the CPTSD class demonstrated greater functional impairment and possessed higher levels of childhood and adult traumatic life exposures.

A Comparison of Complex PTSD and Borderline Personality Disorder
(Assess Dx, Clinical Practice-Complex, Adult, A, Industrialized)

Bisson, Jonathan, MD1; Downes, Anthony, PhD2; Jumbe, Sandra, PhD3; Kitchener, Neil, PhD4; Roberts, Neil, DPsych(Clin)5
1Cardiff University School of Medicine, Cardiff, Wales, United Kingdom
2Betsi Cadwaladr Health Board, Flintshire, Wales, United Kingdom
3Health and Care Research Wales Workforce, Cardiff, Wales, United Kingdom
4University Hospital of Wales, Cardiff, United Kingdom
5Cardiff and Vale University Health Board, Cardiff, United Kingdom

Objective: There is ongoing debate around the relationship between complex PTSD and borderline personality disorder. We examined this relationship in a UK treatment-seeking sample of individuals screening positive for PTSD. Method: Participants completed the ICD-11 Trauma Interview and Questionnaire, the borderline personality disorder items from the Structured Clinical Interview for DSM-IV Axis I Disorders and measures of attachment, social support, emotional regulation, coping skills and interpersonal functioning. Results: Over 230 participants have been recruited to the study to date. Preliminary findings are that 38% of the sample fulfill the criteria for ICD-11 complex PTSD and 26.5% for borderline personality disorder. 52% of those with complex PTSD have co-morbid borderline personality disorder; 74.3% of those with borderline personality disorder also have complex PTSD. Conclusion: ICD-11 complex PTSD and borderline personality disorder are discrete disorders but are often co-morbid with each other. The factors associated with co-morbidity will be discussed.

PTSD and Complex PTSD in Male-Perpetrated Intimate Partner Violence
(Assess Dx, Aggress-Complex-DV, Adult, A, Industrialized)

Gilbar, Ohad, PhD Candidate; Dekel, Rachel, PhD; Ben-Porat, Anat, PhD
Bar-Ilan University, Ramat Gan, Israel

Males who perpetrate intimate partner violence usually experience traumatic events at a higher rate of frequency than other men in the community and experience more posttraumatic stress disorder (PTSD) than in a community sample. Yet, there are no studies about Complex PTSD in this specific population. We suggest the following hypotheses: 1) Different traumatic events will predict different outcomes, namely PTSD or C-PTSD. 2) More exposure to prolonged traumatic events will predict more symptoms of C-PTSD than symptoms of PTSD. 3) Complex PTSD will be associated with more frequency and greater severity of male violence than PTSD. The new scale (ICD-11 Trauma Questioner), developed recently to assess ICD-11 PTSD and C-PTSD has been used in this study. Our research has examined 200 men from 20 domestic violence centers, based on a random sampling of participants drawn from 3,000 men receiving treatment at clinical centers for domestic violence in Israel. Data is still being collected. Preliminary results suggest high reports of exposure to family violence associated with C-PTSD. The findings of this study offer an opportunity to learn about the sources and differences of application of the two different definitions of PTSD and Complex PTSD among unique group of males. This can contribute to the discussion of the new definitions of PTSD and C-PTSD propose to the ICD-11.
Investigating the Proposed ICD-11 Complex Posttraumatic Stress Disorder Diagnosis in a Sample of Refugees and Asylum-Seekers in Switzerland  
(Clin Res, Chronic-Refugee-Torture-Civil/War, Adult, A, Industrialized)  

**Hecker, Tobias, PhD**1; Huber, Stephanie, MSc2; Maier, Thomas, MD3; Maercker, Andreas, PhD, MD1  
1University of Zurich, Zurich, Switzerland  
2Zurich University, Zürich, Switzerland  
3Zurich University, Wil, Switzerland  

In the ICD-11 Complex Posttraumatic Stress Disorder (CPTSD) will be introduced as a separate disorder. Previous research examined the proposed CPTSD concept mainly in Western samples, particularly in victims of childhood abuse. Yet, the ICD-11 proposes the CPTSD diagnosis as a potential consequence of any type of multiple or long-lasting trauma (Maercker et al., 2013). The present study examines the validity of the proposed PTSD and CPTSD diagnoses and its symptom clusters in a sample of refugees and asylum-seekers. Currently, we assess N=120 refugees and asylum-seekers from different countries (e.g., Syria, Iraq, Eritrea) who were exposed to multiple or long-lasting traumatic experiences (e.g., torture, war) and who currently live in Switzerland. With questionnaires that are filled out in a 1:1 setting with a trained assessor, we measure traumatic experiences, PTSD and CPTSD symptoms. With a confirmatory factor analysis we will examine the validity of the suggested PTSD and CPTSD diagnoses. With random-forest regression analysis we will analyze the association between particular traumatic experiences and the symptom clusters. In light of the ongoing debate about the usefulness of a separate CPTSD diagnosis, the present study is one of first to test the validity of the proposed diagnoses in a non-western sample.

Symposium  
Saturday, November 12  
2:45 PM to 4:00 PM  
San Antonio Ballroom A  

Ambulatory Tracking Reveals Dynamic Links among PTSD Dimensions, Health and Biology  
(Tech, Assess Dx-Clin Res-Health-Res Meth, Adult, M, Industrialized)  

**Ruggero, Camilo, PhD**1; Kotov, Roman, PhD2  
1University of North Texas, Denton, Texas, USA  
2Stony Brook University, Stony Brook, New York, USA  

Four clinical researchers present results from two large-scale studies of World Trade Center (WTC) responders, in which ambulatory technologies (smartphones, mobile biomarker assessment) were integrated into a research study (N=201) and a clinical trial (N=154) to provide a detailed picture of Post-traumatic Stress Disorder (PTSD) processes in real-time. The first two presenters discuss novel findings from use of these technologies, including detailed description of how PTSD symptom cascades unfold in real-time, how they interact with daily stressors, and their effects on diurnal cortisol patterns as well as functioning. The third presenter reviews evidence from daily monitoring that suggests pathways for disease between PTSD and physical comorbidity, including effects on immune system functioning. Finally, the fourth presenter illustrates how EMA embedded into a randomized clinical trial of chronic PTSD can reveal mechanisms (i.e., exposure, compliance) by which recovery happens. Discussion focuses on how technologies and insights can be made idiographic and move treatment from out of the clinic and into patient’s daily lives.

**Post-traumatic Stress Disorder (PTSD) Symptom Cascades may Represent a Novel Point of Intervention: Results from Daily Monitoring Study of World Trade Center (WTC) Responders**  
(Res Meth, Assess Dx-Clinical Practice-Res Meth-Tech, Adult, M, Industrialized)  

**Ruggero, Camilo, PhD**: Liu, Keke, MS
Ecological momentary assessment of PTSD symptoms can reveal how symptoms unfold over time, how they affect functioning, and how symptoms interact with each other. The present study of 201 WTC responders oversampled for PTSD involved intensive sampling of PTSD symptoms and functioning across 7 days using smartphones. Analyses first focused on the PTSD syndrome as a whole, and found that on average PTSD affects functioning for as long as three days after appearing. Next, multilevel modeling focused on whether particular symptom clusters (i.e., intrusions, avoidance, numbing or hyperarousal) were likely to spark cascades—in other words, whether they increased the likelihood of exacerbating other symptom clusters in the future. Results indicated that avoidance was the greatest trigger of other symptoms, whereas intrusions were most susceptible to other clusters. Hyperarousal symptoms were least influenced by the occurrence of other symptoms. The present study suggest that approaches that can arrest certain symptoms, particularly avoidance, may prevent a cascading effect and can improve functioning.

**Daily Association between Cortisol Rhythms and PTSD Symptoms in World Trade Center (WTC) Responders: The Role of Daily Stressors**

Liu, Keke, MS; Ruggero, Camilo, PhD

University of North Texas, Denton, Texas, USA

Post-traumatic Stress Disorder (PTSD) in adults has been associated with alterations in hypothalamus-pituitary-adrenal (HPA) axis activity, indexed by cortisol levels. Most studies have been cross-sectional, with little known about the changes in cortisol rhythms associated with PTSD during everyday life. Moreover, little research has investigated the possibility that high levels of daily stressors may moderate the daily association between cortisol and PTSD symptoms. In a sample of 201 World Trade Center (WTC) first responders oversampled for PTSD, we used ecological momentary assessment (EMA) to investigate the associations between PTSD symptoms, salivary cortisol, and daily stressors. A semi-structured interview was used to diagnose PTSD prior to the EMA assessment. Completed analyses revealed significant associations between daily stressors and subsequent increases in PTSD symptoms across the week, but not vice versa. Ongoing analyses of cortisol data will test for similar associations with PTSD and whether these are moderated by daily stressors. Results from this study highlight the important role of daily stress in the maintenance of PTSD and will explore their association with biological markers of stress.

**Daily Smartphone Diaries Embedded into a Clinical Trial for the Treatment of Chronic PTSD: Importance of Symptom Spikes and Variability on Outcomes**

Callahan, Jennifer, PhD, ABPP; Gonzalez, Adam, PhD; Mahaffey, Brittain, PhD

University of North Texas, Denton, Texas, USA

Stony Brook University, Stony Brook, New York, USA

Emotional processing theory (Foa & Kozak, 1986) suggests successful exposure-based therapies for PTSD necessitate activation of fear structures to induce habituation within as well as between sessions. Research examining this hypothesis has produced mixed findings. As a result, Craske et al.'s (2008) concluded support for the theory is weak. However, close review of the literature reveals persistent methodological shortcomings may be obscuring findings (i.e., limited sampling of symptoms, aggregation of data). The consistent finding that within session physiological indicators of activated fear (e.g., heart rate) are associated with better treatment outcomes lends support to the hypothesis that the inconsistent self-report findings may reflect methodological problems. The present study involved an 8-week randomized control trial (RCT) of 154 World Trade Center (WTC) responders with chronic PTSD and in which daily diaries on smartphones were embedded to monitor symptoms and compliance. Unlike weekly assessment approaches, daily diaries revealed clear patterns of symptom spiking near the time of session that may represent processes related to exposure, as well as differences in symptom variability. Discussion focuses on the prognostic significance of symptom
spikes and variability, as well as their relationship to compliance and outcomes.

**PTSD and Physical Health: Temporal Dynamics and Links with Inflammation**  
(Bio Med, Assess Dx-Health-Illness-Tech, Adult, M, Industrialized)

**Kotov, Roman, PhD**; **Waszczuk, Monika, PhD**;  
**Ruggero, Camilo, PhD**  
1Stony Brook University, Stony Brook, New York, USA  
2University of North Texas, Denton, Texas, USA

Post-traumatic Stress Disorder (PTSD) is highly comorbid with physical health problems. Among World Trade Center (WTC) responders, emerging evidence has linked PTSD most closely with lower respiratory symptoms (LRS). However, existing studies assessed these problems over the long-term. It remains unknown whether they are linked in the short-term, or what biological pathways may explain the association. The present study of 201 WTC responders oversampled for PTSD involved intensive, ecological momentary assessment sampling of PTSD symptoms, LRS, and pro-inflammatory cytokines across one week. PTSD symptoms during any given assessment significantly increased the probability of LRS during subsequent assessments. Ongoing analyses to be presented at the conference will test whether this association is mediated by increased inflammation, although preliminary results suggest general upregulation of inflammation in PTSD. Results provide novel evidence that PTSD is a risk factors for health problems even in the short-term, and suggest targeting PTSD may curb exacerbation of physical health problems.

**Symposium**  
Saturday, November 12  
2:45 PM to 4:00 PM  
San Antonio Ballroom B

**War and Political Violence in South and Southeast Asia: Trauma, Ongoing Stressors, and Culturally-Based Expressions of Distress**  
(Global, Cul Div-Rights-Civil/War, Adult, M, S Asia)

**Lambert, Jessica, PhD**  
California State University, Turlock, California, USA

Effective intervention development for communities exposed to war and political violence in the developing world first requires a comprehensive understanding of the cultural context and pressing needs of the population. In this symposium, we will present quantitative and qualitative research findings from studies in South and Southeast Asia with samples exposed to torture and other war-related violence. Collectively, our results demonstrate the lasting public health consequences of protracted violence and highlight the importance of evaluating contextual stressors and supports, and culturally-based idioms of distress. Implications for program development will be discussed.

**The Impact of Torture on Survivors in Southern Thailand: a Study of Trauma Related Symptoms and Culturally Specific Manifestations of Distress**  
(Res Meth, Complex-Cul Div-Torture, Adult, M, E Asia & Pac)

**Bunn, MA, LCSW, Mary, PhD Student**;  
**Engstrom, Dr. David, PhD**  
1University of Chicago, Chicago, Illinois, USA  
2San Diego State University/University of California, San Diego, California, USA

Human rights groups have credible evidence of the widespread use of torture by Thai officials against members of the Muslim population in the deep southern region of Thailand where there is an active political insurgency (Human Rights Watch, 2015; Amnesty International, 2009). Torture survivors are
identified traumatic experiences, including violence, loss of loved ones, and displacement, are associated with poor mental health outcomes among survivors. The objective of this study is to identify local expressions of positive and negative change and psychological distress among Sri Lankan war survivors using a grounded theory approach.

Methods: A semi-structured interview was used to gather qualitative data from 92 survivors of the civil war in Sri Lanka. The interviews were conducted at counseling centers run by the Family Rehabilitation Center in Eastern Province, Sri Lanka.

Results: Findings from the qualitative analyses revealed several culturally specific idioms of distress. These idioms included feelings of anger, fear, hopelessness, and acceptance. Participants reported experiencing excessive anger, helplessness, anxiety, and depression. Additionally, local idioms of distress such as “thinking too much” were identified. Also, participants reported experiencing excessive anger, psychosomatic symptoms, and disrupted relationships.

Conclusion: The mental and physical health status of widowed women in post-conflict, developing countries is an important, yet often overlooked, public health issue. In this study, we applied conservation of resources theory (COR; Hobfoll, 2001) to explain high rates of depression and posttraumatic stress symptoms (PTSS) among war and disaster affected Tamil widows (N = 375) in the Eastern Province of Sri Lanka.

Methods: Fifty survivors of the civil war in Sri Lanka were interviewed at counseling centers run by the Family Rehabilitation Center in Eastern Province, Sri Lanka. A semi-structured interview was used that focused on the nature and experience of war trauma, the experience of positive and negative change, and symptoms of psychopathology. Results: Initial results suggest that most changes reported in the aftermath of war trauma reflect struggles with ongoing daily challenges, although some reports of acceptance and accommodation consistent with post-traumatic growth were also reported. However, these reports were noteworthy in being fatalistic in tone. Additionally, local idioms of distress such as “thinking too much” were identified. Also, participants reported experiencing excessive anger, psychosomatic symptoms, and disrupted relationships.

Toward Understanding the Mental Health Status of War and Disaster Affected Widows in Sri Lanka: An Application of COR Theory

Lambert, Jessica, PhD
California State University, Turlock, California, USA

The mental and physical health status of widowed women in post-conflict, developing countries is important, yet often overlooked, public health issue (UN DPI, 2011). In this study, we applied conservation of resources theory (COR; Hobfoll, 2001) to explain high rates of depression and posttraumatic stress symptoms (PTSS) among war and disaster affected Tamil widows (N = 375) in the Eastern Province of Sri Lanka. We hypothesized that trauma exposure and severity of current psychosocial problems would influence PTSS and depressive symptoms directly and indirectly through loss of intrapsychic (view of self), physical (health status), and social (sense of community) resources. The model had an excellent fit (χ2 = 6.11, df = 3, p = .105; GFI = .99; CFI = .99; RMSEA = .05) and explained 35% of the variance in PTSS and 34% of the variance in depression. Psychosocial problems were significantly associated with PTSS and depression both directly and indirectly through deleterious effects on view of self, health status, and sense of community. Degree of trauma exposure was directly associated with indicators of distress. Results support the utility of COR theory, and have implications for policy and program development for this underserved population.
Panel Presentation
Saturday, November 12
2:45 PM to 4:00 PM
Dallas A1

The Long-Term Impact of Man-made Disasters on Community Mental Health and Resilience: The Great East Japan Earthquake, Tsunami, Nuclear Disaster and Deepwater Horizon Oil Spill
(Pub Health, Cul Div-Tech/Dis, Lifespan, M, Industrialized)

Walker, Douglas, PhD; Uchiyama, Tokio, MD PhD; Maeda, Masaharu, MD PhD; Watson, Patricia, PhD
1Mercy Family Center, New Orleans, Louisiana, USA
2Taisho University, Tokyo, Japan
3Fukushima Medical University, Fukushima, Japan
4National Center for PTSD, Executive Division, White River Junction, Vermont, USA

Communities who endure catastrophic man-made disasters often struggle with posttraumatic stress response, chronic anxiety, guilt, depression and ambiguous loss/grief. Man-made disasters like the Great East Japan Earthquake, Tsunami, Nuclear Disaster and the United States’ Gulf Coast Deepwater Horizon Oil Spill create unique signatures. They increase and prolong the adversity of post-disaster recovery and the public health of communities through the exposure to toxic or lethal environmental hazards, prolonged evacuation, ruined economies, shattered social structure, and lack of adequate health care. This panel will describe the results of surveillance and mental health programming created to identify and address the range of consequences created by the Deepwater Horizon Oil Spill and the Great East Japan Earthquake, tsunami and resultant Daiichi Nuclear Power Plant accident. Shared insight into these complex man-made disasters, gained through scholarly and applied exchanges between Japan and the United States, will also be shared with participants.

Workshop Presentation
Saturday, November 12
2:45 PM to 4:00 PM
Houston Ballroom A

Improving Compliance and Outcome in Clients with Trauma Symptoms and Dysregulated (Addictive/Impulsive) Behavior
(Practice, Affect/Int-Clin Res-Cog/Int-Sub/Abuse, Adult, M, N/A)

Wupperman, Peggilee, PhD
John Jay College, CUNY, New York, New York, USA

Clients with co-occurring trauma symptoms and dysregulated behavior may have trouble engaging in treatment, completing home practice, and/or attending session regularly. Dysregulated behavior may include substance abuse, eating disorder behavior, anger outbursts, or any behavior that provides relief in the short term but has negative consequences over time. This workshop will present techniques and strategies that can be integrated into existing trauma-focused treatment to improve compliance and outcome in clients with trauma symptoms and dysregulated behaviors. By including an empirically based integration of motivational interviewing, dialectical treatments, cognitive behavioral strategies, and mindfulness techniques, this workshop will help clinicians conceptualize and address dysregulated behaviors in ways that help decrease obstacles that can impede effective treatment. Implementation of strategies will be demonstrated through descriptions of therapeutic procedures, discussions of case vignettes and clinical trials, and presentations of video clips (for which participant consent to use in an educational forum has been obtained). A guide for integrating the strategies within existing treatment will be presented along with sample handouts that can be modified to fit treatment goals. Potential adaptations of the strategies will be discussed based on participant needs.
Oral Paper Presentations
Saturday, November 12
2:45 PM to 4:00 PM
Houston Ballroom B

Refugees/Terror Attacks Paper Session

Culturally Informed Community Based Strategies Addressing Mental Health Stigma among Somali Refugees Residing in Bokolmayo, Melkadida and Kobe Refugee Camps in Dolo Ado, Ethiopia
(Commun, Depr-Sub/Abuse-Train/Ed/Dis-Care, Lifespan, I, E & S Africa)

Bezu, Tadu, BS, MS1; Bekele, Hailu, MPH2; Yusuf, Abdulwasi, BS, MS1; Mulugeta, Sisay, BS, MS1
1International Medical Corps, Dolo Ado, Ethiopia
2International Medical Corps, Addis Ababa, Ethiopia
3International Medical Corps, Gambella, Ethiopia

Twenty-one key informant interviews, three focus group discussions and twelve workshops with community members were implemented in three refugee camps in Dolo Ado, Ethiopia as part of a mental health and psychosocial support program initiated in 2012. Information regarding this community’s knowledge and attitudes towards mental health and those with mental health difficulties was solicited within these forums. Results indicated that individuals with mental illness are perceived as dangerous and incompetent and that explanations for mental illness include being cursed or possessed by an evil spirit. In addition, mental illness is largely perceived as being an untreatable and incurable condition. As a consequence of these beliefs, it is not uncommon for individuals with mental illness to experience a range of human rights violations including, being rejected by their family and community, excluded from social activities, and denied opportunities for education and employment. This presentation will describe specific strategies that were implemented to address these stigmatizing attitudes and beliefs. These strategies are culturally informed and based within various community settings, including social and recreational spaces and schools, and were developed and implemented in collaboration with members of the refugee community, including refugees recovering from mental illness.

Relationship between Posttraumatic Stress Symptoms, Self-Perceived Mental Health Service Needs and Actual Utilization of Mental Health Services among Survivors of the Utøya Terrorist Attack
(Pub Health, Health-Prevent-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

A terrorist attack is a major public health challenge, and unmet mental healthcare needs have been documented among a significant proportion of those affected. Accurate estimates of post-disaster health service utilization are essential to develop an effective public health response. Yet there is a lack of longitudinal studies with a baseline assessment to predict the true impact of terrorism on health service utilization. The current study addresses the utilization of specialized mental health services (MHS) among 255 (52%) survivors of the Utøya attack. We linked register data on the survivors’ MHS utilization from 3 years before to 3 years after the attack with three waves of face-to-face interviews at 4-5, 14-15 and 31-32 months after the attack. Overall 67.1% used MHS the first year, 47.8% the second year and 36.1% the third year after the attack, compared to 8.6% the preceding year. Still, approximately one in four survivors with clinical levels of PTSD did not use MHS. The present study examines the relationship between the survivors’ utilization of MHS and their posttraumatic stress symptoms, perceived mental health service needs and socioeconomic factors. This knowledge is important to prevent unmet needs and strengthen the public health response to future disasters.
Loneliness in Survivors of the Utøya Shooting: the Role of Posttraumatic Stress Reactions, Somatic Symptoms, Social Barriers and Support
(Prevent, Acute-Dev/Int-Fam/Int-Terror, Lifespan, M, Industrialized)

Stensland, Synne, MD PhD1; Thoresen, Siri, PhD1; Hafstad, Gertrud, PhD2; Dyb, Grete, MD PhD1
1Norwegian Center for Violence and Traumatic Stress Studies (NKVTS), Oslo, Oslo, Norway
2Norwegian Centre for Traumatic Stress Studies, Oslo, Norway, Norway

Loneliness is consistently linked to poor health outcomes and functional impairment. Exposure to interpersonal violence threatens social integrity and may represent particularly pathogenic risk factors for loneliness. Yet mechanisms linking trauma to loneliness largely remain to be explored. This prospective, longitudinal study investigates a theoretical model of psychosocial and somatic mechanisms related to the development of loneliness. All 490 survivors (median age 18 years) of the mass-shootings on the Utøya island on July 22nd 2011, were invited, of whom 360 (72%) participated in at least one of the three waves. Semi-structured home-based interviews included measures on posttraumatic stress reactions, somatic symptoms, social barriers, rejection, support and loneliness. Preliminary results from multiple linear regression analyses indicate relationships between higher levels of early somatic and posttraumatic stress reactions at four months and loneliness. Adjustment for social factors at T2 levelled out the initial link between early symptoms and later loneliness. As trauma commonly occur, and most people are surrounded by others, specific knowledge of the active social risk and resilience factors at play in the aftermath of trauma may help tailor low-threshold family, school and community interventions to hinder social detachment.

Prevalence and Associated Factors to Posttraumatic Stress Disorder in Haitian Immigrants in South of Brazil
(CulDiv, Cul Div-Ethnic-Global, Adult, I, Latin Amer & Carib)

Brunnet, Alice, MSc1; Kristensen, Christian, PhD2; Bolaséll, Laura, Undergraduate2

1Pontifícia Universidade Catolica do Rio Grande do Sul, Porto Alegre, RS, Brazil
2Pontifical Catholic University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil

Haitian immigration to Brazil is increasing, mainly after the 2010 earthquake in Haiti. Although most transcultural studies about Posttraumatic Stress Disorder (PTSD) are conducted with refugees’ samples, there is evidence that immigrants are often exposed to traumatic events as well. This study investigated the prevalence and associated factors to PTSD in Haitian immigrants in south of Brazil. Interviews with the immigrants were made in French by a trained psychologist, including socio demographics interview, List of Migration Experiences, and PTSD Checklist from DSM-5 (PCL-5). 52 immigrants (45 male), mean age of 32.8 (SD= 6.0), participated in the study. Only four participants didn’t report being exposed to traumatic events (according to DSM-5 criteria A). The prevalence of PTSD in the sample was 19.2% (n= 10). A Logistic Regression model was tested with sex, time of permanence in Brazil, years of study, and post migration variables (having experienced lack of food, discrimination, and unemployment). The model tested was significant \(x^2(6)= 13.1; p= .041\) and explained 35.3% of the variance, with having experienced discrimination increasing 10.4 times the chances of being diagnosed with PTSD (p= .019). The results underscore the need to develop interventions focused on PTSD for this population, mainly, ones targeting post migration stressors.

Oral Paper Presentations
Saturday, November 12
2:45 PM to 4:00 PM
Houston Ballroom C

Biological /Medical Paper Session

Lifetime Adversity, Perceived Stress and the Microbiome
(Bio Med, Bio/Int-Aging-Genetic, Adult, I, Industrialized)

Schüssler-Fiorenza Rose, Sophia Miryam, MD, PhD1; Zhou, Wenyu, PhD2; Slavich, George, PhD3; Rego, Shannon, MS, CGC2; Snyder, Michael, PhD2
1VA Palo Alto Health Care System/Stanford University School of Medicine, Palo Alto, California,
The gut microbiome (microorganisms which live in our gut) is increasing recognized as being important in metabolic and psychiatric disease. Most studies exploring the relationship between stress and the microbiome have been done in animals. The objective of this presentation is to briefly review the existing literature on stress and the microbiome and then present our longitudinal study evaluating the relationship between lifetime stress and adversity, current perceived stress and the microbiome. The study is part of a larger study performing multi-omic (transcriptome, proteome, metabolome, and microbiome) profiling at least every three months over 3 years. Measures used in the study include the Stress and Adversity Inventory (STRAIN) and Perceived Stress Scale-10 (PSS-10). The microbiome is being sequenced using 16S ribosomal RNA and shotgun metagenomic sequencing. We have enrolled 100 people and done full multi-omic profiling on 25 persons (each with at least four time points) to date with many more samples collected. Our hypothesis is that higher lifetime stress and adversity will be associated with differences in the microbiome community structure (e.g. decreased diversity) and decreased resilience (resistance to and recovery from perturbations). We will present our initial results.

Implication of NOTCH1 Gene in Comorbid Anxiety and Depression Symptoms in a Sample of Sexual Abuse Victims
(Bio Med, Rape-Genetic, Adult, M, Industrialized)

Steine, Iris, PhD Candidate; Zayats, Tetyana, PhD; Stansberg, Christine, PhD; Mrdalj, Jelena, PhD; Grønli, Janne, Associate Professor; Pallesen, Ståle, Professor
University of Bergen, Bergen, Norway

Introduction: Susceptibility to anxiety and depression following adverse life events is likely to be influenced by multiple factors, including genetics. In this translational study, genes showing differential expression patterns following early life stress exposure in rodents, were tested for association with comorbid depression and anxiety symptoms in a sample of sexual abuse victims. Methods: The sample consisted of 361 victims of sexual abuse (93.1% women, 6.9% men, mean age=41.6 years, SD 13.1 years). Symptoms of anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (HADS). DNA was obtained from saliva samples. Based on expression analyses in rodents, four candidate genes (NOTCH1, GABRR1, PLK5 and ZNF644) were tagged and genotyped by MassArray iPlex (Sequenom, San Diego, CA, USA). Association was assessed using regression analyses. Correction for multiple testing was achieved by means of False Discovery Rate. Results: A statistically significant association was observed for two NOTCH1 tag SNPs- rs11145770 (OR= 2.21, p= 0.043) and rs3013302 (OR= 2.15, p= 0.043)- with comorbid anxiety and depression symptoms, after correcting for multiple testing. Discussion: Our overall findings provide preliminary evidence that NOTCH1 may be implicated in the susceptibility to psychopathology developed after adverse life events.

Genetic Contribution of Rare and Common Variants on PTSD Outcomes in Adolescents Following Natural-disaster Exposure
(Bio Med, Nat/Dis-Genetic, Child/Adol, M, Industrialized)

Sheerin, Christina, PhD1; Williamson, Vernell, PhD2; Bountress, Kaitlin, PhD3; Vladimirov, Vladimir, PhD3; Ruggiero, Kenneth, PhD3; Amstadter, Ananda, PhD4
1Virginia Institute for Psychiatric and Behavioral Genetics, Richmond, Virginia, USA
2Virginia Commonwealth University, Richmond, Virginia, USA
3Medical University of South Carolina, Charleston, South Carolina, USA
4Virginia Institute for Psychiatric and Behavioral Genetics, VCU, Richmond, Virginia, USA

Posttraumatic stress disorder (PTSD) is a common outcome following natural disasters, with youth being particularly vulnerable. Although PTSD is moderately heritable, there have been no genetically informed epidemiologic studies of PTSD in trauma-exposed adolescents. Further, exome arrays, which capture low frequency and rare coding variants, have yet to be applied to PTSD. We aimed to identify genetic variation that contributes to PTSD in an epidemiologic, tornado-exposed adolescent sample using an exome array. Youth (N=707) provided genomic data and completed structured diagnostic interviews assessing lifetime PTSD status and
symptom count following tornado exposure. In the sample (51.9% female, Mage=14.54, SD=1.73), 16.6% met PTSD criteria. Genotyping was completed on the Illumina Exome Bead Chip. Gene-based models, controlling for ancestry, identified multiple genes (LMCD1, SCL2A, NPS, and CPXR1) associated with PTSD status and CLEC1A (most significant SNP, rs77910243) with symptom severity (all ps<.001). Functional class analyses (variants grouped into synonymous, nonsynonymous, missense, silent, nonsense) and pathway enrichment analyses of implicated genes were conducted to further explore functions of significant variants. These preliminary analyses can inform etiologic models of PTSD risk in adolescents following natural disaster and may aide in prevention programming.

**Effects of Trauma Related Central Corticotropin Releasing Hormone on Threat Processing**

(Primary keyword, Secondary Keywords, Population type, Presentation Level, Region)

Lee, Royce, MD

*University of Chicago, Chicago, Illinois, USA*

Background: The significance of trauma-related increases in brain CRH signaling in humans is not known. Therefore, we tested the hypothesis that enhanced CRH signaling augments neural processing of threat as measured by event-related potentials using a novel intranasal (IN) CRH probe. Methods: In Study 1, 20 male and female adults received either IN CRH (100 IU) or placebo followed in 30 minutes by EEG recording during presentation of rare neutral, rare angry and frequent happy Ekman faces. In Study 2, 16 male and female adults received either IN CRH (100 IU), intravenous (IV CRH, 100 IU), or placebo followed by high density (128 channel) EEG recording during presentation of Ekman Faces. Results: Study 1 found that IN CRH was associated with increases in frontal (electrode Fz) N100 amplitude to neutral and angry faces. In Study 2, Repeated Measures ANOVA revealed a significant effect of drug on N100 response to neutral faces (F (1, 28) = 4.466, p = .02) but not angry faces. Post-hoc tests revealed that IN CRH but not IV CRH was associated with increased N100 amplitude relative to placebo for both rare neutral and frequent happy stimuli. Conclusions: Central but not peripheral CRH enhances neurophysiological response to threatening social stimuli. These results contribute to an understanding how trauma may alter brain processing of social signals.
CLOSING PLENARY

Invited Panel
Saturday, November 12
4:15 PM to 5:30 PM
Dallas B/C

What I Have Changed My Mind About and Why
(Pub Health, Pub Health-Tech, Lifespan, M, Industrialized)

Schnurr, Paula, PhD1; Berliner, Lucy, MSW2; Ruzek, Josef, PhD3; Kilpatrick, Dean, PhD4; Bryant, Richard, PhD5; Rizzo, Skip, PhD6
1National Center for PTSD, Department of Veterans Affairs, White River Junction, Vermont, USA
2University of Washington/ Harborview Medical Center, Seattle, Washington, USA
3VA Palo Alto Health Care System, National Center for PTSD/ Stanford University, Menlo Park, California, USA
4Medical University of South Carolina, Charleston, South Carolina, USA
5University of New South Wales, Sydney, New South Wales, Australia
6University of Southern California, Los Angeles, California, USA

As the field of traumatic stress studies has evolved, we have learned many things that have caused us to change our minds—about the nature of traumatic exposure, its effects, and how these effects can be treated. This session brings together a group of leaders who have worked on issues that include population and global health, as well as technology, to discuss how and why they have changed previously held beliefs in light of experience and empirical evidence. The goal of the session is to illustrate the factors that have led to the changes and to discuss how the current state of knowledge continues to evolve.
Convention Floor Plans

1st Floor

3rd Floor