POSTER ORGANIZATION **Grand Salon V, 3 (GB)**

Each poster is presented either Friday or Saturday, starting at 8:30 a.m. and concluding at 6:30 p.m. Poster presenters will be available during specific sessions grouped by track to discuss their work. Each day concludes with a poster open house from 5:15 p.m. to 6:30 p.m. Presenter attendance at the open house is encouraged. Please visit the poster during its scheduled presentation time if you would like to discuss the work with the presenter. Poster presentations are categorized by track that best suits the subject matter. Within each track, posters are in order by presenting author's last name. A floor map showing the location of posters will be available in the poster hall.

POSTER PRESENTATION SCHEDULE

Day/Time Presented	Track #	Track Name & Abbreviation	Poster Numbers
Friday 8:30 a.m.–9:45 a.m.	4	Clinical and Interventions Research (clin res)	0401–0464
Friday 1:00 p.m.–2:15 p.m.	9	Disaster, Mass Trauma, Prevention, and Early Intervention (disaster)	0901–0923
Friday 1:00 p.m.–2:15 p.m.	11	Miscellaneous (misc)	1101–1111
Friday 4:00 p.m.–5:15 p.m.	3	Children and Adolescents (child)	0301–0327
Friday 4:00 p.m.–5:15 p.m.	7	Culture, Diversity, Social Issues and Public Policy (culture)	0701–0707
Saturday 8:30 a.m.–9:45 a.m.	1	Assessment, Psychometrics, and Research Methods (assess)	0101–0134
Saturday 1:00 p.m.–2:15 p.m.	6	Complex Trauma and Interpersonal Violence (complex)	0601–0646
Saturday 2:30 p.m.–3:45 p.m.	2	Biological and Medical Research (bio med)	0201–0219

Posters in Track 1

Assessment, Psychometrics, and Research Methods (assess)

Presented: **Saturday, 8:30 a.m.–9:45 a.m.**

Posters 0101–0134

0101 **assess**

MMPI "Fake Bad" Sets, Combat Exposure, and PTSD in Vietnam Veterans

Ben Adams, Columbia University; J. Blake Turner, Columbia University; Bruce Dohrenwend, Columbia University

The National Vietnam Veterans Readjustment Study (NVVRS) includes a subsample of 259 U.S. male veterans who completed the Minnesota Multiphasic Personality Inventory (MMPI), from which validity scales are computed to assess "fake bad" response sets (e.g., F-K, Ds, and the Subtle and Obvious Scales). We investigate the relation of scores on these profiles to military and historical measures (MHMs) of probable combat exposure severity that are not subject to reporting bias, as well as measures of war-zone stressors based on detailed self-reports by the veterans, which we call narrative rating measures (NRMs). Our purpose is to investigate whether a "fake bad" MMPI profile will be validated as an indicator of the tendency to inflated reporting of adversity and symptom levels-1) to the extent that it is associated with disjunctions between MHMs and NRMs; 2) to the extent that it explains the relationship between NRMs and PTSD symptoms assessed by both clinicians' diagnoses and the self-report Mississippi Scale, net of the MHMs; and 3) to the extent that it is related to the probability of seeking VA compensation, net of the MHMs.

0102 **assess**

Assessing Mental Health and Coping Resources of War-Affected Populations

Alastair Ager, Center for International Health Studies, Queen Margaret University College

Assessing mental heath needs of war-affected populations is a complex task, but represents just one element of the broader appraisal required for effective planning of psychosocial programs for war-affected populations. Assessment of local coping resources—and means enhancing such resources through the course of intervention—is another key element, as are means of negotiating with local stakeholders regarding priorities for external support. These principles are illustrated with data from Angola, Ethiopia and Sri Lanka. In particular, attention is drawn to the importance of assessing function within affected communities, rather than symptom reportage alone. Protocols for identifying and strengthening local coping resources are presented, along with a heuristic guiding processes of negotiation with affected communities regarding intervention.

0103 **assess**

Evaluation of the Mississippi and the CAPS Scales

Elizabeth Betemps, University of Cincinnati; Mohamed Aziz, Cincinnati VAMC and University of Cincinnati; Dewleen Baker, Cincinnati VAMC and University of Cincinnati

Rasch measurement, a one-parameter model of Item Response Theory, can place both the subject and item on a linear scale of "symptom severity" if the data fit the model. These estimates are test-independent and can be isolated if they are group dependent. A large sample size is not required to validate the results. The functioning of the rating categories and the individual items in the Mississippi Scale and the CAPS Scale were evaluated. The SCID-DSM-IV was used as the gold standard for the diagnosis of PTSD. Test data were obtained from 117 veterans with a primary diagnosis of PTSD, of whom 54 had a secondary diagnosis of major depressive disorder. For a best fit, it was necessary to collapse the five original categories in each scale to three. Upon recalibration, nine items in the Mississippi functioned well with little error. These nine items remained invariant when veterans with a secondary diagnosis of depression were removed from the analysis. The separation index in the Mississippi was 7.82. Seven items in the CAPS remained invariant when the depressed PTSD veterans were removed. The CAPS separation index is less then optimal at 3.1.

0104 **Withdrawn**

0105 **assess**

The Development of the Mississippi Trauma Disclosure Scale

Rodney Bragdon, University of Mississippi; Brenda Benson, University of Mississippi; Amanda Hines, University of Mississippi; Thomas Lombardo, University of Mississippi

Trauma disclosure (TD), describing one's traumatic experiences, takes many forms, such as writing a diary, telling friends, or engaging in exposure-based PTSD treatments. If conceptualized as the opposite of avoidance of traumatic thoughts and feelings, disclosure may be one mechanism that reduces post-traumatic stress. Individual differences in TD may help explain why relatively few trauma-exposed individuals develop PTSD. Unfortunately, no measures of TD with reported psychometric characteristics exist. We developed the Mississippi Trauma Disclosure Scale (MTDS), 14 items measuring disclosure of facts and emotions, the two domains we assumed comprised disclosure

content, by repeated expert review of a much larger item pool. A PCA of MTDS data from 177 trauma-exposed undergraduates produced a two-component solution, which accounted for 61.0% of the variance and which represented the factual and emotional domains we predicted reasonably well. MTDS internal consistency was .89 and 2-week test-retest reliability was .82. Significant correlations between PTSD symptom severity (MPSS-SR) and MTDS total and factual disclosure scores supported validity. However, MTDS emotion disclosure scores were unexpectedly unrelated to PTSD symptom severity. The MTDS is the first trauma disclosure measure with demonstrated reliability. Future research should further examine its factor structure and validity in other populations.

0106 **assess**

Childhood Maltreatment, Self Capacities, and Trauma Symptoms: The IEQ

Kathleen Brock, Polytechnic University; Laurie Pearlman, Traumatic Stress Institute/Center for Adult and Adolescent Psychotherapy LLC; Edward Varra, University of Nevada, Reno

The repetitive nature of childhood maltreatment (including physical, sexual, and emotional abuse and physical and emotional neglect) renders survivors vulnerable to complex trauma responses beyond the symptoms of PTSD. Constructivist self development theory (CSDT) provides a framework for understanding the impact of childhood maltreatment on the developing self and self-regulation abilities. CSDT suggests that childhood maltreatment impedes development of self capacities (affect tolerance, inner connection, and self worth) and suggests that many trauma symptoms are manifestations of underdeveloped self capacities. This study explored the relations among childhood maltreatment, self capacities, and trauma symptoms and gathered psychometric data on the Inner Experience Questionnaire (IEQ), a new measure of self capacities. Data from two clinical and two non-clinical archival samples were used. Results indicated that respondents who experienced childhood maltreatment reported more severely disrupted self capacities than those without childhood maltreatment. Self capacity disruptions were correlated with trauma symptoms in both clinical and non-clinical samples. In all four samples, participants with more severely disrupted self capacities reported more trauma symptoms than those with less disrupted self capacities. The results provide theoretical support for CSDT and provide evidence for the reliability and validity of the IEQ. Implications for treatment are discussed.

0107 **assess**

The PDEQ Self-Report Version in French-Speaking Traumatized Subjects

Alain Brunet, Douglas Hospital Research Center, Psychosocial Research Division; Philippe Birmes, Douglas Hospital Research Center, Psychosocial Research Division; Maryse Benoit, Douglas Hospital Research Center, Psychosocial Research Division; Sabine Defer, Douglas Hospital Research Center, Psychosocial Research Division; Leah Hatton, Douglas Hospital Research Center, Psychosocial Research Division; Henri Sztulman, UFR de Psychologie, University de Toulouse II; Laurent Schmitt, Service Universitaire de Psychiatrie, CHU de Toulouse

Background: Based on previous studies, peritraumatic dissociation is a risk factor for PTSD. The Peritraumatic Dissociative Experience Questionnaire (PDEQ) is a short inventory used to assess immediate dissociation at the time of a traumatic event. The aim of this study is the validation of the French version of the PDEQ self-report in two samples of traumatized subjects. Methods: Eighty-seven victims recruited in a French Emergency Department, and 46 other victims recruited in two Canadian Emergency Rooms, were administered the PDEQ within 5 days after exposure. Forty-eight of the French victims were administered the Stanford Acute Stress Reaction Questionnaire and the Impact of Event Scale (IES), respectively, two weeks and one month posttrauma. The 46 Canadian victims were administered the Peritraumatic Distress Inventory within 5 days after exposure, and the PDEQ and IES-Revised one month posttrauma. Results: Factor analyses suggested a simple factor solution in the two groups. Convergent validity revealed significant correlations with peritraumatic distress, acute dissociation, and post-traumatic stress levels. The PDEQ showed satisfactory test-retest reliability and internal consistency. Conclusions: These results indicate the unity of the concept of peritraumatic dissociation. The PDEQ can be a useful tool for assessing immediate response in French-speaking subjects at risk for PTSD.

0108 **Withdrawn**

0109 **assess**

Fptsd: An MMPI-2 Infrequency Scale for Combat Veterans with PTSD

Jon Elhai, VA Medical Center; Kenneth Ruggiero, National Crime Victims Research and Treatment Center; B. Christopher Frueh, VAMC, Charleston, and Medical University of South Carolina; Jean Beckham, VAMC, Durham, North Carolina and Duke University Medical Center; Paul Gold, Medical University of South Carolina; Michelle Feldman, VAMC, Durham, North Carolina

A number of difficulties exist in using traditional Minnesota Multiphasic Personality Inventory-2 (MMPI-2) validity scales with victims of traumatic events. High MMPI-2 validity scale elevations may be accounted for by: exposure to extreme forms of traumatic events, poor family-of-origin environments, and symptoms of posttraumatic stress disorder (PTSD), depression, and dissociation. An empirical study is presented, which marked the development of a new MMPI-2 validity scale, the Infrequency-Posttraumatic Stress Disorder scale (Fptsd), to be used with trauma victims presenting with PTSD. Fptsd was created from MMPI-2 items that were infrequently endorsed by 940 male combat veterans presenting for treatment at the PTSD clinics of two VA Medical Centers. A variety of statistical methods were implemented, preliminarily establishing Fptsd's validity with a validation sample of 323 additional PTSD-diagnosed combat veterans. Results indicate that, relative to previously established MMPI-2 validity and overreporting scales (F, Fb, and Fp), Fptsd was significantly less related to psychopathology and distress and better at discriminating simulated from genuinely reported PTSD. Clinical implications are discussed concerning the use of Fptsd to assess disability-seeking veterans suspected of overreporting PTSD symptoms.

0110 **assess**

Assessing LOSS: Late-Onset Stress Symptomatology in Aging Veterans

Clifford Evans, National Center for PTSD, VA Boston Healthcare System; Lynda King, National Center for PTSD, VA Boston Healthcare System, Boston University; Daniel King, National Center for PTSD, VA Boston Healthcare System, Boston University; Molly Keehn, National Center for PTSD, VA Boston Healthcare System; Peter Bachrach, Pathfinder Associates; Eve Davison, National Center for PTSD, VA Boston Healthcare System; Avron Spiro III, Massachusetts Veterans Epidemiology Research and Information Center, Boston University

We have conducted a series of studies to provide evidence for, and to explore potential antecedents and correlates of, late-onset stress symptomatology (LOSS) in aging combat veterans. By LOSS, we mean a condition among older veterans who: (a) were exposed to highly stressful war-zone events in their early adult years; (b) have functioned successfully with no long-term history of chronic stress-related disorders; but (c) begin to register combat-related mental health complaints commensurate with the changes and challenges of the aging process. In the work reported here, we developed a survey questionnaire assessing LOSS and potentially associated variables and administered it to a sample of 223 older male combat veterans, largely drawn from World War II and Korea, but including some older Vietnam veterans (mean age=77). Analyses revealed high reliability for the 34-item LOSS measure (alpha= .96). As evidence for concurrent validity, LOSS scores were significantly correlated with two indicators of contemporary life stress (Elders Life Stress Inventory scores, .41, and concerns about retirement, .49), with social support (-.22), with life satisfaction (-.21), and with Pearlin's Sense of Mastery Scale (-.48). In addition, scores on LOSS were relatively strongly correlated with scores on the Brief Symptom Inventory (.47).

0111 **assess**

Disability Compensation-Seeking among Veterans Evaluated for PTSD

Christopher Frueh, VAMC, Charleston, and Medical University of South Carolina; Jon Elhai, VAMC, Charleston, and Medical University of South Carolina; Paul Gold, VAMC, Charleston, and Medical University of South Carolina; Jeannine Monnier, VAMC, Charleston, and Medical University of South Carolina; Kathryn Magruder, VAMC, Charleston, and Medical University of South Carolina; Terence Keane, National Center for PTSD, VAMC, Boston; George Arana, VAMC, Charleston, and Medical University of South Carolina

To examine further the relationship between compensation-seeking status and symptom reporting among combat veterans evaluated for PTSD. Archival data were drawn from 320 consecutive adult male combat veterans, evaluated at a VA PTSD outpatient clinic from 1995 to 1999. Subjects were compared on variables from their clinical evaluation, including diagnostic status and self-report measures such as the Minnesota Multiphasic Personality Inventory-2, which includes scales designed to detect feigned or exaggerated psychopathology. Compensation-seeking veterans reported significantly more distress across domains of psychopathology, even after controlling for the effects of income, and despite no differences in PTSD diagnoses between groups. However, they also were much more likely to overreport or exaggerate symptom reports than non-compensation-seeking veterans. This study provides further evidence that VA disability compensation incentives influence the way some veterans report their symptoms when evaluated for PTSD. These data suggest that current VA disability policies have problematic implications for delivery of clinical care, evaluation of treatment outcome, and rehabilitation efforts within the VA.

0112 **assess**

Psychometrics of the CROPS and PROPS in Multiple Cultures/Translations

Ricky Greenwald, Mount Sinai School of Medicine; Allen Rubin, University of Texas at Austin; Jan Weidemann, Technische University St. Berlin; Gregory Jurkovic, Georgia State University; Alison Russell, Clackmannanshire Psychological Services; Michael O'Connor, Clackmannanshire Psychological Services; Carlijn de Roos, Mediant, Enschede, Holland; Nasrin Jaberghaderi, Allame Tabatabaee University

Brief, convenient, and sensitive assessment of children's and adolescents' post-traumatic stress symptoms is called for in a number of settings. The Child Report of Post-traumatic Symptoms (CROPS) and the Parent Report of Post-traumatic Symptoms (PROPS) are brief paper-and-pencil instruments covering a broad spectrum of child/adolescent post-traumatic stress symptoms. Preliminary studies with urban and rural community samples in the USA were promising, and a recent treatment outcome study in a Tamil translation of the CROPS showed good sensitivity to change in post-traumatic status. Here we present validation data on the updated version of the CROPS and PROPS, from 7 studies in 6 countries, including the original English as well as translations in Dutch, German, Bosnian, and Persian. Internal consistency, factor structure, re-test reliability, convergent and discriminant validity and criterion validity support the use of these instruments across settings and cultures.

0113 **assess**

Brief Assessment of Children's and Adolescents' Trauma/Loss Exposure

Ricky Greenwald, Mount Sinai School of Medicine; Allen Rubin, University of Texas at Austin; Jan Weidemann, Technische University St. Berlin; Alison Russell, Clackmannanshire Psychological Services; Michael O'Connor, Clackmannanshire Psychological Services

Relatively few trauma exposure instruments have been studied and validated. The Lifetime Incidence of Traumatic Events (LITE) scale is a 1-page paper-and-pencil instrument for brief assessment of children's and adolescents' exposure to a range of adverse life events, and of their past and current levels of distress regarding endorsed items. There are self-report and parent report versions. We will describe the development of these instruments as well as a series of studies with community and clinical samples in the USA, Germany, and Scotland. Results include good to excellent test-re-test reliability and criterion validity (against a structured interview) and a modest correlation with level of post-traumatic stress symptoms. Also, number of early adverse events endorsed on the LITE had a small correlation with number of self-reported antisocial behaviors endorsed by incarcerated juveniles.

0114 **assess**

Medical Center Patients' Reactions to Participating in a PTSD Research

Brandy Henson, Washington State University; Paige Ouimette, Washington State University; Ruth Cronkite, VA Palo Alto Health Care System and Stanford University Medical School; Rudolf Moos, VA Palo Alto Health Care System and Stanford University Medical School

Due to a lack of systematic empirical inquiry, researchers and institutional review boards have relied upon subjective judgments to evaluate ethical concerns surrounding trauma-focused research. Little is known about participants' reactions to research utilizing PTSD interviews. This study examines participants' reactions to PTSD focused research interviews. As part of a larger study of PTSD and health, 134 patients from primary care clinics completed the Clinician Administered PTSD interview and self-administered questionnaires assessing trauma. Participant reactions were assessed with the Reactions to Research Participation Questionnaire (Newman et al., in press). Results indicated that on average, participants agreed with statements on the positive participation, personal benefit, and global evaluation subscales. On average, participants agreed with statements indicating emotional reactions to the research interview and disagreed with statements indicating perceived drawbacks. Reports of overall greater trauma history were associated with more personal benefit and increased emotional reactions to participation. Participants' with a PTSD diagnosis reported stronger emotional reactions than those without PTSD; these groups did not differ on ratings of personal benefit, positive participation, or perceived drawbacks. The results of this study suggest that participants' perceived the study as a positive experience despite having emotional reactions during participation.

0115 **assess**

Utility of a Brief PTSD Screen for Use in Primary Care Settings

Daniela Hugelshofer, Washington State University; Paige Ouimette, Washington State University and VAPAHCS, Stanford University School of Medicine; Annabel Prins, San Jose State University

Posttraumatic stress disorder (PTSD) is frequently underdiagnosed in routine clinical practice, particularly when PTSD symptoms are not the presenting complaint. In the era of managed care, physicians are required to diagnose and treat an ever-growing list of illnesses under increasingly stringent time constraints. Failure to recognize and appropriately treat PTSD can lead to high rates of medical utilization and medical costs, and can result in significant psychological distress for the individual. The development of a brief screening measure for use in primary care settings may facilitate the detection and subsequent treatment of PTSD. 186 primary care patients completed the PTSD-Primary Care (PTSD-PC) screen and the Clinician-Administered PTSD Scale (CAPS). The utility of the 4-item PTSD-PC will be evaluated by comparing it with PTSD diagnoses derived from the CAPS using signal detection analysis.

0116 **assess**

Effects of Trauma Research on Domestic Violence Survivors

Lesley Johnson, University of Colorado at Colorado Springs; Charles Benight, University of Colorado at Colorado Springs

The present study investigated the impact of trauma research on domestic violence survivors. At the end of an hour-long survey assessing variables including distress, abuse severity, and cognitions, three questionnaire items

were utilized to assess participants' levels of perceived benefit, unexpected upset, and regret of participation. Participants included 61 women who had recently experienced physical or sexual abuse by a partner. The mean age of participants was 33; 67% were Caucasian, and 33% were ethnic minorities. The majority of women were abused as children (69%) and in prior adult relationships (62%). Forty-four percent of the women reported that they gained something positive from participation. Twenty-five percent reported they were more upset than they had anticipated; this percentage is twice that of participants in similar studies with adult victims of childhood abuse and hospitalized accident victims. A minority of women (10%) expressed regret for participation. Results indicated that women who were more upset than expected scored significantly higher on depression ($t(42) = 2.56$, $p < .05$), PTSD ($t(42) = 3.89$, $p < .01$), and number of lifetime traumas ($t(42) = -3.36$, $p < .01$). Implications for enhancement of consent form documents as well as debriefing procedures will be addressed.

0117 **Withdrawn**

0118 **assess**

Integrating Screening for PTSD Risk in the Emergency Medical Setting

Nancy Kassam-Adams, Children's Hospital of Philadelphia; Flaura Winston, Children's Hospital of Philadelphia, University of Pennsylvania; Chiara Baxt, Children's Hospital of Philadelphia, Fordham University; Joel Fein, Children's Hospital of Philadelphia, University of Pennsylvania; Richard Ittenbach, Children's Hospital of Philadelphia; Avital Cnaan, Children's Hospital of Philadelphia, University of Pennsylvania

The emergency medical setting provides a unique opportunity to identify children who might be at risk for persistent post-traumatic stress symptoms after an acute traumatic event. This presentation will report on a series of prospective studies designed to refine and validate a brief screening measure and to evaluate the feasibility of integrating systematic screening into acute medical care protocols for children. In the first phase of the project, a pilot 51-item Screener was administered to a development sample of children (8–17) injured in traffic crashes, and a core set of 12 items was identified that best predicted PTSD severity assessed via CAPS-CA interview 4 to 8 months post-injury. This revised Screener was administered to a validation sample of 100 injured children. In the third phase, now underway, the Screener is administered by health care personnel in the Emergency Department to assess its feasibility and validity under normal clinical conditions with a broad range of injured children. Results indicate that a brief screening measure can be useful in predicting severity of later post-traumatic stress symptoms, accounting for approximately 40% of the variance in CAPS-CA severity scores. Implications for integrating empirically sound brief screening methods into pediatric care will be discussed.

0119 **assess**

Exposure and Gender Differences for Persian Gulf War-Related Stressors

Jeffrey Knight, National Center for PTSD-Boston; Molly Keehn, National Center for PTSD-Boston; Dawne Vogt, National Center for PTSD-Boston; Clifford Evans, National Center for PTSD-Boston; Daniel King, National Center for PTSD-Boston; Lynda King, National Center for PTSD-Boston; David Foy, Pepperdine University

Telephone survey data on 17 pre and post-deployment stressors were collected from two national samples of PGW veterans (n= 357each) during development and cross-validation of a self-report measure of psychosocial risk and resilience factors. Content-validated stressor categories included traumatic and non-traumatic stressors derived from the published literature and pilot-study focus groups of PGW veterans. The two national samples included all service branches,Active Duty, Reserves and National Guard troops, both genders, and a range of racial groups although 78% were caucasians. Differences in pre-to-post deployment exposure, and absolute frequencies of reported exposure, varied across stressors, and by gender in the cross-validation sample. Relative percent decreases during the post-deployment period were reported for most stressors (average=37%); a relative increase of 50% was reported for life-threatening illness or mental illness of someone close. Significant gender differences were found for being emotionally mistreated, being physically assaulted, divorced, witnessing violent assault, losing a job, extended period of unemployment, family member with substance abuse problems, toxic exposure, and combat exposure. Patterns within and across the two samples will be contrasted with data on the same categories from the NVVRS sample and a large non-treatment-seeking, community sample.

0120 **assess**

Psychological, Physical, and Neurocognitive Problems in PGW Veterans

Jeffrey Knight, National Center for PTSD-Boston; Molly Keehn, National Center for PTSD–Boston; Clifford Evans, National Center for PTSD–Boston; Dawne Vogt, National Center for PTSD–Boston; Lynda King, National Center for PTSD–Boston; Daniel King, National Center for PTSD–Boston; David Foy, Pepperdine University

The relationships between PTSD, depression, and general anxiety symptoms, current physical problems, and neurocognitive problems (NC) in everyday life were examined using telephone survey data systematically collected from a large national sample of PGW veterans (n=357)during the cross-validation of a self-report measure of psychosocial risk and resilience factors. Multiple items assessing each symptom category were summarized into scales. The neurocognitive domain was subdivided into items representing attention-concentration, executive functions, and memory skills. Internal consistency of scales was high (.89-.93). Self-reported PTSD symptoms were significantly correlated with NC, Anxiety, Depression and current Physical Symptoms (.72, .71, .60, .49, respectively). Anxiety, and Depression symptoms correlated with NC (. 62, .52). Demographic characteristics, combat exposure, toxin exposure, branch of military service, and pre-deployment stressor exposure were not correlated with symptom outcome variables. Correlations were much higher between the NC and the psychological outcome variables, than between the NC and current physical problems. The data do not support a generalized symptom reporting bias, and alternatively suggest that anxiety and PTSD have a stronger relationship than depression to the attention, concentration, organizational, and memory problems reported by the PGW veterans. Additional patterns among these variables will be discussed.

0121 **assess**

Mental Illness Among Karenni Refugees from Burma in Camps in Thailand

Barbara Lopes Cardozo, Centers for Disease Control and Prevention/ NCEH/IERHB; Leisel Talley, Centers for Disease Control and Prevention/NCEH/IERHB; Ann Burton, International Rescue Committee (IRC); Carol Gotway Crawford, Centers for Disease Control and Prevention/NCEH

Significant morbidity related to mental illness was suspected among 19,177 Karenni refugees from Burma living in three camps in Mae Hong Son province in Thailand. We conducted a community-based assessment of major mental health problems to determine the prevalence of mental illness related to traumatic experiences, to identify risk and mitigating factors, and to help develop a culturally appropriate intervention program that addresses these mental health issues. A systematic random sample design was used with stratification for the three camps. A total of 495 people aged 15 years or older from 317 households participated in the survey. We conducted a separate survey among 58 Karenni refugees who were injured by landmines in the same three camps. A questionnaire was constructed from a qualitative assessment and included demographics, questions regarding culture-specific symptoms of mental illness, the General Health Questionnaire-28, the Hopkins symptoms checklist-25, the Harvard Trauma Questionnaire, and selected questions from the SF-36. Results of the assessment revealed a high prevalence of trauma events. Mental health outcome scores indicated elevated levels of depression and anxiety symptoms; however, posttraumatic stress disorder (PTSD) scores were comparable to non-traumatized communities. The subset of respondents who were injured by landmines showed higher prevalence rates for non-specific psychiatric morbidity, depression, and PTSD.

0122 **assess**

Physical Reactions Scale in Predicting PTSD

Julie Mastnak, Center for Trauma Recovery, University of Missouri at St. Louis; Michael Griffin, Center for Trauma Recovery, University of Missouri at St. Louis

While previous literature has examined the relationship between concurrent panic symptoms and posttraumatic stress disorder, little of the research has examined the potential ability of acute panic symptoms to predict subsequent PTSD. Specifically, the Physical Reactions Scale has never been used to predict subsequent PTSD. Information about the ability of acute syptoms to predict PTSD is of utmost importance in the early identification of individuals likely to require services. Standardized interviews and symptom questionnaires were administered to a community sample of 89 female victims of sexual or physical assault. Initial assessments were conducted within 2 weeks of the assault and follow-up assessments were conducted 3 months after the assault. Assessment measures for this presentation include the Physical Reactions Scale (PRS) and the Clinician Administered Posttraumatic Stress Disorder Scale (CAPS). Results from regression analyses suggest that acute panic reactions as assessed by the PRS are highly predictive of subsequent re-experiencing, avoidance, and hyperarousal symptoms ($p<.01$). The acute symptoms predicted PTSD in both victims of sexual and physical assault. In addition to these findings, implications for the clinician will be discussed.

0123 **assess**

A Comparison of the MMPI-2 and the PAI for the Assessment of PTSD

Meghan McDevitt-Murphy, Auburn University; Frank Weathers, Department of Psychology, Auburn University; Amanda Olson, Department of Psychology, Auburn University; David Eakin, Department of Psychology, Auburn University; Trisha Benson, Department of Psychology, Auburn University

The MMPI-2 and the PAI were compared with regard to discriminating PTSD from depression and social phobia. Participants were 90 undergraduates with mixed civilian trauma exposure. They were administered the SCID-I, CAPS, MMPI-2, and PAI, and were assigned to one of four diagnostic groups (PTSD, depression, social phobia, no diagnosis). On both the MMPI-2 and the PAI a general pattern emerged, such that the PTSD group (n=22) produced the highest mean scores, followed by the depression (n=16), social phobia (n=13), and no diagnosis (n=39) groups. The PTSD and depression group differed from the no diagnosis group on most MMPI-2 and PAI scales, and from the social phobia group on several scales. However, the PTSD group did not differ from the depression group on any MMPI-2 basic clinical or validity scales, nor on the PAI clinical, validity, treatment or interpersonal scales. In discriminant function analyses the PAI demonstrated better correct classification rates than did the MMPI-2 for discriminating PTSD and depression (76.3% vs. 65.8%), PTSD and social phobia (77.1% vs. 74.3%), and PTSD and no diagnosis (83.3% vs. 80.3%). The PAI demonstrated lower interscale correlations than did the MMPI-2, which may account in part for the differences in correct classification.

0124 **assess**

Use of the MMPI-2 and the PAI in the Evaluation of Chronic PTSD

Susannah Mozley, Durham, North Carolina VA Medical Center; Jean Beckham, Durham, North Carolina VA Medical Center and Duke University Medical Center; Frank Weathers, Auburn University; Michelle Feldman, Durham, North Carolina VA Medical Center

The MMPI-2 is frequently included in the assessment of PTSD to address complications in diagnosis that include comorbidity and response validity. The Personality Assessment Inventory (PAI) is a relatively new multiscale inventory that may be a useful alternative to the MMPI-2, but very little is known about its use in PTSD assessment. The present study examined and compared these two instruments in the same sample of veterans evaluated for chronic, combat-related PTSD in a VA PTSD clinic. Archival data from 79 veterans was analyzed. PTSD diagnosis was determined from scores on the Clinician Administered PTSD Scale (CAPS). Results replicated findings of previous studies, which have called into question the utility of the MMPI-2 F validity scale and the MMPI-2 PK PTSD scale in PTSD evaluation. Use of newer MMPI-2 F validity scales (the F(p) and the Fptsd) were supported. The PAI trauma subscale appeared to be a useful measure of trauma exposure and re-experiencing. There was significant heterogeneity of codetypes for the PTSD group on both measures, suggesting that neither measure provides a "PTSD profile." Group comparisons indicated significant differences for several MMPI-2 and PAI scales. Results suggest that the PAI is a viable alternative to the MMPI-2 in PTSD assessment batteries.

0125 **assess**

The Impact of Stressful Life Events on Symptoms of Chronic PTSD

Barbara Niles, National Center for PTSD, VA Boston Healthcare System; Erika Wolf, National Center for PTSD, VA Boston Healthcare System; Heidi Behr, National Center for PTSD, VA Boston Healthcare System

Although clinical anecdote suggests that current stressors can exacerbate existing symptoms of chronic PTSD, there is little empirical support for this observation. It has been widely suggested that stress symptoms increased substantially for various groups following the 9/11/01 terrorist attacks. The current study provides evidence that these events had a negative impact on symptoms of PTSD in a group of Vietnam veterans. This presentation examines the course of chronic PTSD in Vietnam veterans who have been enrolled in an investigation in which PTSD symptoms, life stressors, and social support are assessed every two weeks via telephone interviews. Preliminary evidence suggests that PTSD symptoms fluctuate substantially, but show no general upward or downward trend over time. As clinical anecdote would predict, for those study participants who were enrolled in the study prior to 9/11/01, PTSD symptoms did increase significantly during the following weeks. However, no association was detected between self-reported stressors and PTSD symptom fluctuation in general. Thus, although that the impact of an event of the magnitude of 9/11/01 is evident, the impact of less extreme stressors on PTSD fluctuation is not detectable. Possible reasons for the lack of association between symptoms and stressors will be discussed.

0126 **assess**

Assessment of Fabricated Combat-Related PTSD with Self-Report Measures

Stephen Perconte, VA Pittsburgh Health Care System-Highland Drive; Melissa Cross, VA Pittsburgh Health Care System-Highland Drive; Martha Schmitz, VA Pittsburgh Health Care System-Highland Drive

There are few studies available examining the utility of self-report instruments, such as the Mississippi Scale, in distinguishing true combat related PTSD from fabricated presentations of PTSD. Of these, most rely on feigned presentations by educated subjects, such as college students. There are obvious differences between healthy feigning and clinical symptom fabrication, with markedly different diagnostic considerations. The present study attempts to address these shortcomings by administering 3 commonly used screening instruments, the MSC, the Beck Depression Inventory and the SCL-90-R, to four groups of Vietnam combat veterans: 20 veterans diagnosed with PTSD, 20 veterans diagnosed as Malingering, 20 veterans diagnosed with Factitious Disorder, and 20 control non-PTSD veterans with various other psychiatric disorders, for a total of 80 subjects. It was hypothesized that scores for the PTSD, Factitious and Malingering groups would be elevated across instruments, but with the highest reported symptom levels in the latter two. Results show significantly higher scores for all 3 groups compared to the non-PTSD controls, with the Factitious and Malingering groups reporting significantly higher scores than the PTSD group on all measures. The findings suggest that elevated scores on such screening instruments may be useful in alerting clinicians to clinically fabricated PTSD.

0127 **Withdrawn**

0128 **assess**

Assessing Overreporting in Compensation-Seeking Veterans with PTSD

Stephanie Repasky, New Orleans VAMC; Laurel Franklin, Brown University; Karin Thompson, New Orleans VAMC and Tulane University School of Medicine; Madeline Uddo, New Orleans VAMC and Tulane University School of Medicine

This presentation discusses the findings from two studies of compensation-seeking veterans diagnosed with PTSD (N = 127). Veterans were administered the MMPI-2 and measures of PTSD, depression, and combat exposure during a VA hospital compensation and pension exam (C&P). First, veterans were divided into two groups by their MMPI-2 F scale scores (F > 80 and F < 80) and then compared on MMPI-2 validity indicators (F, F(p), F-K), clinical scales, measures of combat exposure, PTSD, and depression. Sixty-two percent of veterans' F scores were elevated over a T-score of 80. Using F(p) and F-K, a much smaller proportion of profiles were deemed as invalid. Group differences on measures of depression, PTSD, and combat exposure are discussed. The second study used the Infrequency-Psychopathology [F(p)] scale to examine response styles in veterans with MMPI-2 F score over 80. Based on this scale, only 29 profiles were elevated due to overreporting. Veterans found to be overreporting were compared to veterans elevating profiles due to extreme distress on measures of combat exposure, PTSD, and depression. Use of the MMPI-2 for assessing response style and the clinical implications of our findings are discussed.

0129 **Withdrawn**

0130 **assess**

Real Words are Really Hard: Early Trauma and the Struggle to Disclose

Lynn Sorsoli, Harvard Graduate School of Education

Designed to bring depth to the current understanding of the healing nature of disclosure, the purpose of this study was to explore the range of traumatic experiences women feel reluctant to share, the ways they convey these experiences, and the ways they have come to understand relationships and the potential for disclosure. Data collection involved a semi-structured interview (the Multidimensional Trauma Recovery and Resiliency interview) followed by an open-ended interview with twenty women, including four survivors of childhood sexual abuse. Transcripts were analyzed through a variety of narrative methods (including holistic and categorical content analyses) to explore themes in life history, traumatic symptoms, and personal understandings of disclosure. This analysis revealed that life themes, general relational difficulties and complications with regard to the disclosure of painful or frightening events are similar across those who had experienced childhood sexual abuse and those who had experienced emotional abuse; while bodily symptoms and their influences on telling and relationships differs between the groups. These narratives also highlight the ways disclosure can exacerbate trauma symptoms by interrupting or negating the comfort that can be obtained through relationships and provide new understandings of difficulties trauma survivors experience both in and out of the therapy situation.

0131 **assess**

Screening for PTSD in Primary Care: The PRIME-MD

Avron Spiro III, VA Boston Healthcare System; Cheryl Hankin, McNeil Consumer Healthcare; Lewis Kazis, Center for Health Quality, Outcomes, and Economic Research, Bedford VAMC

The prevalence of mental disorders among primary care patients is well documented. Because these disorders often can be treated successfully, we should improve their detection in primary care. Our objective here is to determine whether a commonly used screening tool, the PRIME-MD Patient Questionnaire (PQ), can accurately identify patients with PTSD. We interviewed 474 VA ambulatory care patients (selected from a larger study) with the PRIME and administered a clinical assessment of current PTSD (CAPS). We used receiver operating characteristic analysis to identify a cutoff score on the PRIME-MD PQ that best identified current PTSD. The prevalence of current PTSD per CAPS was 9.8%. A cutoff score of 5 on the PRIME-MD PQ had excellent sensitivity (.91) and acceptable specificity (.54) for current PTSD. Of the 44 patients with current PTSD, 39 (89%) were identified by the PRIME. Although as prevalent as depression, PTSD is not routinely screened. The PRIME is as effective in screening for PTSD as for other mental disorders. Rapid and accurate screening of mental disorders can lead to improved detection, and then to diagnosis and treatment which can enhance health and quality of life. Supported by VA HSR&D SDR 91-006S, IIR 96-030.

0132 **assess**

Assessment, Treatment and Research in a Women's Therapy Centre

Noreen Stuckless, Women's College ACC, Sunnybrook and Women's, University of Toronto; Brenda Toner, Centre for Addiction and Mental Health, University of Toronto; Ruth Gallop, Faculty of Nursing, University of Toronto; Alisha Ali, Centre for Addiction and Mental Health, University of Toronto; Donna Akman, Centre for Addiction and Mental Health, Univerity of Toronto; Cheryl Rolin-Gilman, Centre for Addiction and Mental Health; Tracey Tully, Women's College ACC, Sunnybrook, and Women's; Diane Whitney, Centre for Addiction and Mental Health, University of Toronto; Lori Haskell, Centre for Addiction and Mental Health

Purpose and Method: A multi-disciplinary team of clinicians/researchers developed a clinical/research database for a woman-focussed therapy center where patients' presenting problems included depression, self-esteem, self-silencing, and physical, sexual and emotional abuse. The team was formed to develop a set of clinical measures suitable for a women's mental health setting that was grounded in a feminist position. Main objectives of developing the database were to improve the client's quality of care and to provide a well-designed basis for clinical research. Information was collected regarding presenting problems, demographics, clinical diagnoses, symptom change, and clients' pre-therapy expectations and post therapy satisfaction. The database has been used in a variety of clinical and empirical ways: first, to identify clients' concerns; second, to promote clinical practice that is relevant to these concerns; third, to develop and assess interventions that address these concerns; and fourth, to assess outcomes of these interventions. Findings and Conclusion: Data collected on 485 clients has been evaluated and integrated into clinical practice and research project development. Selected pre/post quantitative and qualitative measures indicated lower depression and self-silencing and higher self-esteem reported by the Centre's clients. The impact of this database on the women's therapy center and its clients will be discussed.

0133 **assess**

Psychophysiology and Psychometrics of PTSD in Russian Combat Veterans

Nadya Tarabrina, The Russian Academy of Sciences, Institute of Psychology; Natasha Lasko, Manchester VA Research Service, Massachusetts General Hospital, Harvard Medical School; Elena Misko, Russian Academy of Sciences, Institute of Psychology; Roger Pitman, Massachusetts General Hospital, Harvard Medical School; Scott Orr, Manchester VA Research Service, Mass. General Hospital, Harvard Medical School

Russian veterans of the Afghanistan War were assessed using a validated, script-driven imagery technique, and Russian translations of standardized psychometric instruments, and structured clinical interview. Participants were classified into current PTSD (n=15) and non-PTSD, (n=37) groups using the Clinician Administered PTSD Scale (CAPS). As a group, veterans with, compared to without, PTSD did not show elevated physiologic responses during imagery of their personal combat experiences, as previously observed across a variety of PTSD populations. However, when the PTSD group was limited to veterans with a CAPS-Total score =>65 (n=5), there was clear evidence of increased skin conductance reactivity during trauma-related imagery. Consistent with other PTSD populations, the Russian PTSD group

produced substantially higher scores on the MMPI-2 and other measures of general psychopathology. Factor analysis was used to examine relationships amongst the psychophysiologic, psychometric, and self-reported emotion measures. Measures of psychophysiologic reactivity during trauma-related imagery loaded primarily on a "stress-reaction" factor that included loadings from the Combat Exposure Scale, Impact of Event Scale, and CAPS-Total score. MMPI-2 clinical scale scores and measures of general psychiatric symptoms loaded on a "psychopathology" factor, on which the CAPS-Total score also loaded. Two additional factors appeared to represent symptom minimization and negative self-reported emotions.

0134 **assess**

R3: A Psychosocial Model of Traumatic Stress After Physical Injury

David Victorson, University of Miami; Kent Burnett, University of Miami; Kelly Travis, University of Miami; Marielena Palomino, University of Miami; Karen Macaluso, University of Miami; Kristen Bauer, University of Miami; Rebecca Delgado, University of Miami; Lorie Farmer, University of Miami; Victoria Hernandez, University of Miami; Destiny St. John, University of Miami

A conceptual psychosocial model was developed to reflect three important domains, Reaction, Resilience-Recovery and Risk (R3), which are believed to mediate the development and maintenance of posttraumatic stress reactions following traumatic physical injuries. "Reaction" is characterized by the presence or absence of pre, peri and posttraumatic psychophysiological stress reactions, such as acute/posttraumatic stress, depression/anxiety, substance use, and pain. "Reaction" is mediated by "Resilience-Recovery" and "Risk", which together make up a multidimensional bipolar construct. On one pole, "Resilience-Recovery" refers to factors involved in the: (a) resistance to the development/maintenance of psychophysiological stress and (b) promotion of the development/maintenance of adaptive post-injury thoughts, feelings and behaviors. On the other pole, "Risk" is characterized by factors that: (a) render an individual vulnerable to the development/maintenance of psychophysiological stress reactions and (b) promote the development/maintenance of maladaptive post-injury thoughts, feelings and behaviors. This continuum can be broken down into environmental, cognitive, personality, psychiatric and demographic domains, which can be further expanded into: coping, appraisal and attributional processes; social support, optimism, hardiness and self-efficacy; prior trauma and peritraumatic exposure, injury severity, and premorbid psychopathology. This model will be depicted graphically and empirical evidence will be provided to support the importance of these conceptual factors.

Posters in Track 2

Biological and Medical Research (bio med)

Presented: **Saturday, 2:30 p.m.–3:45 p.m.**

Poster Numbers 0201–0219

0201 **bio med**

A Structural Model of Trauma, PTSD and Perceived Health

M. Lori Conrad, Georgia State University; Sarah Cook, Georgia State University; Fran Norris, Georgia State University

In addition to the impairment associated with symptoms of PTSD, recent studies suggest that those who have experienced trauma, including victims of sexual assault and combat veterans, report higher levels of physical problems and utilize services more often than their non traumatized (or less traumatized) counterparts. The relation between traumatic events and physical health is not well studied but some studies available suggest the presence of PTSD as a factor. Although theories have been proposed to explain this relation, few have been adequately tested. This study sought to replicate and extend previous findings in a sample of 375 incarcerated women randomly selected and interviewed in a state prison in Atlanta and in a sample of 200 randomly selected women presenting to three clinics in a large inner city hospital. Using the Traumatic Life Events Questionnaire, the Posttraumatic Stress Symptom Scale, and the SF-36 Health Survey, the relation of trauma to perceived physical health was examined via a structural model with PTSD symptom clusters as mediators. Results and implications will be discussed in terms of treatment, policy, and future research.

0202 **bio med**

Salivary Cortisol, PTSD Symptoms, and CD4 Counts in HIV+ Individuals

Douglas Delahanty, Kent State University; Laura Bogart, Kent State University; Michael Baker, Kent State University; Jackie Figler, Violet's Cupboard

Research examining the biology of PTSD has consistently demonstrated alterations of the hypothalamic-pituitary-adrenal (HPA) axis in patients with PTSD, most often decreased levels of circulating cortisol. The effects of cortisol-mediated changes in immune activity in healthy individuals is unknown; however, small changes may have implications for immunosuppressed individuals such as HIV patients. The present study examined the relationship between PTSD symptoms stemming from diagnosis with HIV, waking salivary cortisol levels, and CD4 counts in 56 males and 13 females with HIV (38% African-American: average age = 40.8 + 8.8). Participants were recruited from an AIDS service organization where they completed questionnaires concerning disease variables as well as the Impact of Event Scale (IES). Participants also provided a saliva sample (for cortisol analysis) collected 45 minutes after waking. Results revealed that levels of intrusive thoughts and avoidant behaviors were negatively correlated with waking cortisol ($r=-.28$, $p=.02$) and positively correlated with CD4 counts ($r=.39$, $p<.01$). Correlations were similar for the intrusion and avoidance subscales of the IES. Results support prior findings of low cortisol in patients with PTSD and suggest that PTSD-related hormonal alterations may be related to disease course.

0203 **bio med**

Monitoring Health Status of Rescue Workers Following a Major Explosion

Anja Dirkzwager, NIVEL; Joris Yzermans, NIVEL

In May 2000, a firework factory exploded in a residential area in the Netherlands, resulting in 22 deaths, 947 wounded people, 500 destroyed houses, and 1,500 severely damaged houses. A large number of rescue workers was involved in the aftermath of this explosion; four of them died and dozens of them were wounded. Following the explosion, a large-scale monitoring study was implemented to investigate disaster-related health consequences of both the inhabitants of the area and the rescue workers. This poster presentation focuses on three groups of rescue workers involved in the explosion: firefighters, policemen, and ambulance personnel. The aim of the study was to monitor longitudinally disaster-related health problems, absenteeism, and use of medication of these rescue workers, through their contacts with the company doctors. These doctors register their contacts with the rescue workers involved in a computerized format. As data could be retrieved one year prior to the disaster, it is possible to compare the health status of the rescue workers with their health status prior to the explosion, and to compare the health status with a control group of rescue workers. This poster presents preliminary results on the number and type of health problems related to the explosion among these rescue workers.

0204 **bio med**

Sense of Coherence Predicts Support and PTSD after Pregnancy Loss

Iris Engelhard, Maastricht University

Antonovsky (1987) defined the sense of coherence (SOC) as the ability to perceive a stressor as comprehensible, manageable, and meaningful. In this prospective study of pregnant women, the relationships were tested between the SOC in early pregnancy and crisis support and symptoms of psychological trauma after pregnancy loss. One thousand three hundred and seventy-two

women completed questionnaires in early pregnancy, including measures for the SOC and depressive symptoms, and were followed for every 2 months thereafter until 1 month after the due-date of birth. Of them, 126 women had a pregnancy loss, and 118 completed measures for crisis support and symptoms of posttraumatic stress disorder (PTSD) and depression about one month later. The results showed that a stronger SOC in early pregnancy significantly, but modestly, predicted less PTSD symptoms after pregnancy loss. The SOC also predicted less depressive symptoms after pregnancy loss, over and above depressive symptoms in early pregnancy. Crisis support partly mediated the relation between the SOC and PTSD symptoms. The findings suggest that a stronger SOC renders women somewhat resilient to psychological trauma after pregnancy loss, which appears partly due to the mobilization of crisis support.

0205 **bio med**

Physical Health Functioning and PTSD Symptoms in Adults with Severe MI

Debra Fournier, University of Connecticut Health Center and Yale School of Nursing; Laura Thompson, Yale School of Nursing; Julian Ford, University of Connecticut Health Center

The literature regarding the link between PTSD and physical health outcomes continues to grow, with an expanding body of evidence suggesting that PTSD is associated with health perceptions, service utilization and documented physical ailments. The present study extends this research by examining the relationship between current PTSD symptom clusters and physical health (complaints of physical symptoms, general health-related functioning and perceptions, and physical health problems reported by a physician) in a sample of adult men and women in treatment for severe mental illness an urban community mental health clinic. The role of avoidance, emotional numbing, and psychogenic amnesia are highlighted, based on evidence from prior studies of an association between somatization and avoidance, alexithymia, and dissociation.

0206 **bio med**

Memory for the Traumatic Event Increases the Risk for PTSD

Sharon Gil, Department of Nursing, University of Haifa; Irit Zilberman, Division of Psychiatry, Rambam Medical Center; Danny Koren, Department of Psychology, University of Hiafa; Yael Caspi, Division of Psychiatry, Rambam Medical Center; Ehud Klein, Division of Psychiatry, Rambam Medical Center

The present study focused on memory for the traumatic event and its association to PTSD among victims of head trauma. 120 participants, recruited from the surgical unit at rambam medical center, were prospectively evaluated over six months following minor head trauma. All participants underwent psychiatric, personality, and cognitive evaluation and assessment of memory for details of the traumatic event. Overall, 17 (14%) of the participants met full criteria for PTSD six months after the trauma. Participants who remembered the trauma were significantly more likely to develop PTSD compared to those with no memory (OR=4.7; CI=1.0-9.9). Specifically, 13 (23%) out of 55 participants with memory developed PTSD, whereas only 4 (6%) out of the 65 participants without memory developed PTSD ($X2=21.3$; $p<.001$). Logistic regression analysis revealed that, accounting for other PTSD predictors (such as history of psychiatric disorder, acute stress reaction, etc), memory for details of the traumatic event was strongly associated with PTSD (OR=3.9; CI=1.0-7.0), second in order of magnitude to acute stress reaction (OR=5.1; CI=2.0-12.3). The findings of the present study highlight the importance of memory for details of the traumatic event as a positive predictor in the development of PTSD.

0207 **bio med**

Health Indices in Primary Care Patients With and Without Trauma and PTSD

Karen Gillock, Dartmouth Medical School; Claudia Zayfert, Dartmouth Medical School

Increasing interest has been directed towards the association between PTSD and physical health in primary care populations. This study assessed the effect of potentially traumatic experiences and PTSD on physical health in a primary care sample. PTSD diagnosis was determined by applying DSM-IV criteria to the "most distressing" event reported via the Life Events Checklist and the PTSD Checklist. Potentially traumatic and Criterion A events will be described. Of 232 participants, 9% met full PTSD criteria, 25% met partial PTSD criteria, 43% reported an event meeting Criterion A but did not meet PTSD criteria, and 24% did not report a Criterion A event. Health indices assessed included self-reported physical symptoms (Wahler Physical Symptoms Inventory), health functioning (Medical Outcomes Survey-Short Form 36), physician-diagnosed medical conditions, and medical utilization rates. Generally, ANOVAs revealed significant differences between the groups, with means reflecting poorer health and higher utilization for full PTSD patients, followed in order by patients with partial PTSD, no PTSD-trauma, and no PTSD-no trauma. Data on medical conditions are being coded and will also be presented. Findings will be discussed as respects the possibility that early PTSD screening/intervention can affect the health of a significant number of primary care patients.

0208 **bio med**

Prevalence and Presentation of Pain in a Clinical PTSD Sample

Karen Gillock, Dartmouth Medical School; Claudia Zayfert, Dartmouth Medical School; Daniel Almeida, Dartmouth College

Although increasing attention has been directed towards the role of trauma exposure and PTSD in pain populations, few studies have investigated pain in PTSD populations. This study attempts to address that gap by 1) providing descriptive data from a sample of treatment-seeking PTSD patients, and 2) comparing PTSD patients with and without pain on measures of PTSD, physical injury, health functioning, disability, and psychological distress. Of 93 PTSD patients who completed a pain questionnaire, 68 (73%) reported distress due to persistent/recurrent pain in the prior month. Reported pain duration ranged from 25-44 years (M=10.0, SD=11.7). Twenty-nine percent reported that the pain was due to accident or illness while 28% reported that "the pain just began" (the remaining 43% endorsed 'other' or provided no details). Full comparison data will be presented in this poster. Briefly, PTSD patients reporting pain generally evidenced significant differences from no-pain PTSD patients on physical symptom and disability measures, but not on psychological distress measures. The results will be discussed in terms of potential treatment considerations for PTSD patients with pain.

0209 **bio med**

Combat-Related Injury and PTSD: An Event-Based Injured-Control Study

Danny Koren, Psychology Department, University of Haifa; Ariela Tzarfati, Psychology Department, University of Haifa; Orit Sheli-Vacnin, Psychology Department, University of Haifa; Dana Mor, Psychology Department, University of Haifa; Yael Goshen-Kita, Psychology Department, University of Haifa; Liat Ziv, Psychology Department, University of Haifa; Ehud Klein, Psychiatry Division, Rambam Medical Center

Recent studies have found high rates of PTSD among injured trauma survivors. However, there are very few if any studies in the literature that attempted to isolate the unique contribution of physical injury to the development of PTSD by directly comparing injured and non-injured survivors in an event-based matched injured-control design. Participants in this study were 60 soldiers who were injured during combat in Lebanon between 1998 to 2001, and 40 one-to-one matched soldiers who participated in the same events but were not injured. PTSD and other Axis I disorders were assessed using structured

interviews like the Structured Clinical Interview for DSM-IV (SCID) and the Clinician Administrated Posttraumatic Scale (CAPS), as well as various self-report rating scales. Ten of the 60 injured soldiers (16.7%) but only one (2.5%) of the 40 non-injured soldiers met diagnostic criteria for current PTSD (Odds Ratio=7.60). Injured soldiers scored significantly higher on all the self-report scales of PTSD as well as depression and anxiety symptoms. These results suggest that physical injury increases rather than decreases the risk for PTSD. Furthermore, the low incidence of PTSD in the non-injured group, suggests that the injury might play a key role in the development of PTSD.

0210 **bio med**

The Relationship Between Cigarette Use, PTSD, Depression and Panic

Dean Lauterbach, Eastern Michigan University; Gregory Leskin, National Center for PTSD, VA Palo Alto Healthcare System; Claudia Baker, National Center for PTSD, VA Palo Alto Healthcare System

Figures from the CDC indicate that tobacco kills more than 430,000 U.S. citizens each year-more than alcohol, cocaine, heroin, homicide, suicide, car accidents, fire, and AIDS combined. Very vew studies have examined the relationship between PTSD and cigarette use. A search of the PILOTS database using the search terms 'tobacco,' 'nicotine,' and 'cigarette(s)' uncovered only 45 unique citations, 20 of which address the relationship between cigarette use and PTSD/trauma exposure. The extant studies have focused primarily on children and women and suggest that exposure to trauma (e.g., Bensley et al., 1999; Kaplan et al., 1998) and development of PTSD (e.g., Acierno et al., 1996; Lipschitz et al., 2000) are each associated with elevated risk for nicotine use/abuse. This paper utilized data from the National Comorbidity Survey (NCS) to better understand cigarette use in the following groups: 1. PTSD, 2. PTSD + alcohol/drug use/dependence, 3. PTSD + depression, and 4. PTSD + Panic. The NCS is a large (n = 8,098) nationally representative population survey assessing the lifetime and 12-month prevalence of numerous DSM-III-R disorders. Preliminary analyses indicate that comorbidity does not increase the likelihood of using cigarettes (nicotine abuse). However, persons in the PTSD + alcohol dependent group were elevated in their use of cigarettes and reported greater difficulty quitting. Additional data on the relationship between nicotine use/abuse, PTSD, and various comorbid disorders will be presented.

0211 **bio med**

Trauma Exposure and PTSD Symptoms in HIV-Seropositive Adults

Erin Morgan, Boston Medical Center; Carlos Cuevas, Boston Medical Center; Melanie Vielhauer, Boston Medical Center; Andreas Bollinger, VA Boston Healthcare System, Boston University School of Medicine; Jori Berger, VA Boston Healthcare System, Boston University School of Medicine; Terence Keane, VA Boston Healthcare System, Boston University School of Medicine

To date, few published studies have examined trauma exposure in an HIV population, depite high rates of substance abuse that have been documented in people living with HIV an the high rate of comorbidity between substance abuse and PTSD in the general population. The current study examines trauma exposure and PTSD in HIV-seropositive adults with substance abuse disorders who were recruited at an inner-city, urban medical center. As part of a larger, ongoing study of HIV/AIDS treatment adherence, health outcomes, and health costs, participants were interviewed with the Life Events Checklist and the Clinician-Administered PTSD Scale. In addition to demographic information, preliminary data will be presented on the frequency of exposure to different categories of traumatic events and the prevalence of PTSD symptoms.

0212 **bio med**

Domestic Violence and PTSD: Examination of Pregnancy Outcomes

Leslie Morland, National Center for PTSD; Greg Leskin, National Center for PTSD; Carolyn Rebecca Block, Illinois Criminal Justice Information Authority; Mathew Friedman, National Center for PTSD

Traumatic stress may impact a woman's reproductive health. During pregnancy, for example, physical and sexual assault can result in miscarriage. The biological and behavioral alterations associated with PTSD may also indirectly lead to adverse pregnancy outcomes (Seng et al., 2001). Despite the proliferation of research documentin the high rates of intimate partner violence (IPV) during pregnancy (Gazmararian, Lazaorick, and Spitz, 1996), few studies have examined the relationship between IPV, PTSD, and adverse pregnancy outcomes. Examination of archival data allowed us to explore the independent relationships between physical and psychological abuse, PTSD, and pregnancy outcomes in a population of primarily ethnic minority women. Data were examined from a population of women over 18 years of age who sought treatment at one of three medical sites as part of the Chicago's Women's Health Risk Study (CWHRS) (Block, 2000). After controlling for substance abuse, depression, and social support, both psychological and physical abuse were found to significantly predict higher rates of miscarriage. These findings suggest that women who have not only experienced physical abuse but have also experienced psychological abuse during pregnancy may be at increased risk for miscarriage. Prospective studies are needed to confirm findings and determine potential mechanism underlying these relationships. Routine assessment and treatment of trauma and PTSD in Ob-gyn clinics may reduce adverse pregnancy complications.

0213 **bio med**

Cognitive Functioning and Hippocampal Volume in Combat-Related PTSD

Rebecca Prestel, National Center for PTSD, Boston VAMC; Catherine Kutter, National Center for PTSD, Boston VAMC; Wendy Stegman, National Center for PTSD, Palo Alto VAMC; Lorraine Stewart, National Center for PTSD, Palo Alto VAMC; Danny Kaloupek, National Center for PTSD, Boston VAMC; Steven Woodward, National Center for PTSD, Palo Alto VAMC

Previous research on humans and animals has shown that the hippocampus plays a central role in declarative memory function and that psychological trauma exposure is related to smaller hippocampal volume. In a sample of 60 combat veterans, we used magnetic resonance imaging to assess hippocampal white matter volume, and we correlated white matter volume with measures of cognitive functioning. We assessed performance on a serial 7s subtraction task and on tasks of visual (Rey Osterreith Complex Figure Test, Rey Visual Design Learning Test) and verbal (Wechsler Memory Scale—Logical Memory, Hopkins Verbal Learning Test) memory. Hippocampal white matter volumes correlated positively with performance on the verbal memory tasks and on the subtraction task but not with visual memory performance. Further analyses suggested that the specific relationships between hippocampal volume and memory differed across Vietnam and Gulf War cohorts. Additionally, the results of linear regression analyses indicated that levels of psychological symptoms accounted for more variance in some performance measures than did hippocampal volume. Additional data are being collected. Implications of these findings will be discussed.

0214 **Withdrawn**

0215 **bio med**

Trauma-Related Somatoform Symptoms in Psychotherapeutic Outpatients

Martin Sack, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine; Peter Henningsen, University of Heidelberg, Department of Psychosomatic Medicine and Psychotherapy; Friedhelm Lamprecht, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine

The purpose of our study was to extend the knowledge about the relation of traumatizations and somatoform symptoms in an outpatient population. 613 consecutive patients were evaluated with clinical interviews and a standardised test battery including symptoms in general (SCL-90-R), somatoform symptoms (SOMS-7), history of traumatizations (PDS), and traumatic childhood experiences (CTQ). 73% percent of the total sample reported at least one significant lifetime trauma. The prevalence of somatoform symptoms was significantly higher in traumatized subjects (mean number of somatoform symptoms 16.8 ±9.8 vs. 12.1 ±8.9). Accordingly, these patients also fulfilled the diagnostic criteria of somatization disorder more frequently. These differences were more marked in patients with sexual traumatizations. Pseudoneurological symptoms and sexual symptoms which have a very low base rate in non-traumatized clinical populations were much more frequent in sexually traumatized patients (odds ratio up to 6,8). Nevertheless, some other symptoms with generally higher base rate like abdominal pain or fatigue were also relatively more frequent (odds ratio 2-3). This leads us to the conclusion that the conceptualisation of somatoform disorders as a primarily chronic polysymptomatic form of hysteria with rare but typical pseudoneurological and sexual symptoms in the 1960s might have been influencedby a high proportion of somatizing (female) subjects with (possibly unrecognised) traumatizations.

0216 **bio med**

Declarative Memory Performance and Hippocampal Volume in PTSD

Wendy Stegman, National Center for PTSD-Menlo Park VA; Lorraine Stewart, National Center for PTSD-Menlo Park VA; Rebecca Prestel, National Center for PTSD-Boston VA; Catherine Kutter, National Center for PTSD-Boston VA; Ned Arsenault, National Center for PTSD-Menlo Park VA; Danny Kaloupek, National Center for PTSD-Boston VA; Steven Woodward, National Center for PTSD-Menlo Park VA

Large amounts of data collected from humans and animals indicate that the hippocampus plays a central role in declarative memory function. To study this relationship in PTSD, we acquired hippocampal gray matter volumes via magnetic resonance imaging and correlated these data with delayed recall performances on visual and verbal declarative memory tasks. We were surprised to find few significant correlations in a group of 74 combat veterans, with and without PTSD. Only performances on the Rey-Osterreith Complex Figure Test (ROCFT) were related to hippocampal gray matter volumes (r's in the range of 0.26 to 0.30). Performances on the Wechsler Logical Memory Scale and Hopkins Verbal Learning Test were not related to hippocampal gray matter volumes. Some results suggested that the pattern of correlations between hippocampal volume and memory performance differed in the Vietnam and PGW cohorts. Based on earlier findings, we regressed memory performances on Beck Depression Inventory (BDI) scores and hippocampal gray matter volumes. In these analyses, the BDI accounted for more variance in memory performances than did hippocampal volumes. Similarly, when memory complaints were regressed on hippocampal volumes, BDI, and CAPS severity scores, hippocampal volumes accounted for essentially no variance in complaints. Implications of these findings will be discussed.

0217 **bio med**

Structural and Functional Estimates of Hippocampal Status in PTSD

Lorraine Stewart, National Center for PTSD, VA Palo Alto Healthcare System; Wendy Stegman, National Center for PTSD, VA Palo Alto Healthcare System; Rebecca Prestel, National Center for PTSD, Boston Veterans Affairs Medical Center; Catherine Kutter, National Center for PTSD, Boston Veterans Affairs Medical Center; Ned Arsenault, National Center for PTSD, VA Palo Alto Healthcare System; Matthew Kimble, National Center for PTSD, Boston Veterans Affairs Medical Center; Steven Woodward, National Center for PTSD, VA Palo Alto Healthcare System; Danny Kaloupek, National Center for PTSD, Boston Veterans Affairs Medical Center

A number of studies have suggested that hippocampal structure and function are compromised in PTSD. Knight (1996), studying persons with hippocampal lesions, found evidence that an event-related potential (ERP), the novelty P3, indexes hippocampal functional status. The novelty P3 is an auditory event-related potential elicited from subjects listening passively to novel sounds. The EEG time-locked to novel sounds typically exhibits a large fronto-central positivity. In patients with hippocampal lesions the novelty P3 was eliminated. Extrapolating from Knight's finding, we expected to observe that MRI-based hippocampal volumes would covary directly with the amplitude of the novelty P3. Subjects in this study were 68 Persian Gulf and Vietnam combat veterans with and without PTSD. Hippocampal volumes were estimated blind to diagnosis and electrophysiologic data. MR quantification also included Talairach-based estimates of frontal gray matter volumes. Not withstanding Knight's findings, we observed in this large sample absolutely no covariance between novelty P3 amplitudes and hippocampal or frontal cortical gray matter volumes. More precise quantification of the novelty P3 and other ERP components are ongoing using spatio-temporal principal components analysis. Implications of these findings will be discussed.

0218 **bio med**

Memory Functioning and PTSD: Impact on Treatment Outcome

Jennifer Wild, Institute of Psychiatry, University of London

Approximately one half of clients with PTSD still meet diagnostic criteria for the disorder after a standard course of cognitive-behavioural therapy (CBT, the current psychological treatment of choice). Recent research has highlighted impaired learning and memory processes in adults with PTSD. In addition, neuroimaging studies have identified altered brain morphology in regions associated with memory functioning, specifically the hippocampus. Memory difficulties appear to adversely affect the ability of clients with PTSD to respond to CBT. This presentation will review the current neuropsychological findings associated with PTSD. Data will be presented of PTSD sufferers, with and without memory deficits, who were followed through a standard course of CBT for PTSD. Clients who did not improve with treatment had significantly poorer performance on intake measures of verbal memory. In particular, a measure of encoding meaningful verbal material was found to independently predict outcome. Good treatment planning requires the prior identification of clients unlikely to respond to a specific therapy. Screening for memory problems will inform initial psychological assessment and treatment planning for PTSD. The presentation will propose specific screening procedures for memory deficits in PTSD. The use of these will optimize treatment planning and raise therapeutic response rates for sufferers of PTSD.

0219 **bio med**

Health Status of Rescue Workers After the Bijlmermeer Plane Crash

Anke Witteveen, VU University Medical Center; Inge Bramsen, VU University Medical Center; Anja Huizink, VU University Medical Center; Pauline Slottje, VU University Medical Center; Danielle Brunsting, VU University Medical Center; Jos Twisk, VU University Medical Center; Willem van Mechelen, VU University Medical Center; Tjabe Smid, VU University Medical Center and KLM Arbo Services; Henk van der Ploeg, VU University Medical Center

On October 4, 1992, an El Al Boeing crashed into two apartment buildings in the Amsterdam suburb "Bijlmermeer." In the aftermath residents and rescue workers expressed health concerns. They were particularly concerned about possible exposure to hazardous materials. In 2000 a historical cohort study was started to assess the health status of police officers (N=806) and fire-fighters (N=398) who have been professionally involved at the scene of the crash. The health status of workers (N=305) of the KLM Royal Dutch Airlines, who have been exposed to the wreckage of the plane was also assessed. The aforementioned groups of subjects will be compared to similar groups of controls derived from the police (N=683), fire-department (N=161) and KLM workforce (N=214) who were not involved with the Bijlmermeer plane crash. Self-report questionnaires are used to assess prevalence of (1) (partial) PTSD and (2) other psychological symptoms like depression, anxiety and somatic symptoms. In addition to self-report questionnaires (3) salivary cortisol is measured. Professional involvement at the scene of the plane crash or exposure to the remains of the plane are the main independent variables, whereas the prevalence of PTSD and other psychological symptoms are the main dependent variables.

Posters in Track 3

Children and Adolescents (child)

Presented: **Friday, 4:00 p.m.–5:15 p.m.**

Poster Numbers 0301–0327

0301 **child**

Correlates of Acute Stress Symptoms in Children After Traffic Injury

Chiara Baxt, The Children's Hospital of Philadelphia and Fordham University; Nancy Kassam-Adams, The Children's Hospital of Philadelphia; Flaura Winston, The Children's Hospital of Philadelphia

PTSD in children has been associated with the child's prior trauma exposure and his/her exposure to traumatic factors associated with an index event. However, predictors of acute reactions (including ASD) in children are not well understood. This study examined the relative contributions of demographic factors, trauma history, event-related exposure (e.g., frightening sights and sounds), and acute pain to children's self-reported ASD symptoms. 311 children, ages 5 to 17, injured in a traffic crash (as a passenger, pedestrian, or bicyclist) were assessed within one month of injury. ASD symptom severity was associated with age, race, trauma history, event-related exposure and pain (bi-variate correlations), but not with gender or with time between injury and assessment. Multiple linear regression analysis was conducted to investigate the unique and combined contribution of these factors in predicting ASD severity. The resultant model accounted for a small, but significant amount of the variability in children's reports of ASD symptoms. Younger age, African-American ethnicity, more prior trauma, and greater event-related exposure were each independently associated with greater severity of ASD symptoms. These findings are consistent with current literature regarding child PTSD, but also suggest the need to include additional phenomena in prediction of children's stress reactions.

0302 **child**

Coping with Trauma Reminders: Gender Specificity in Bosnian Youth

Molly Benson, University of Vermont; Bruce Compas, University of Vermont; Christopher Layne, Brigham Young University

Exposure to external reminders of traumatic war-related events, coping responses to these reminders, and psychological symptoms were examined in youth living in post-war Bosnia. Participants (N= 136) completed the Youth Self-Report (YSR) and the Responses to Stress Questionnaire (RSQ). Confirmatory Factor Analysis confirmed the 3-factor model of coping measured by the RSQ of Primary Control, Secondary Control and Disengagement coping. For girls, exposure to trauma reminders was significantly ($R2 = 0.11$, $p < .01$) and positively related to internalizing, but not externalizing symptoms, and this relationship was fully mediated by coping responses (Total $R2 = 0.20$, $p < .01$). Specifically, higher use of Secondary Control coping strategies (cognitive restructuring, positive thinking, acceptance, distraction) significantly ($p < .05$) predicted lower internalizing symptoms. For boys, exposure to trauma reminders was significantly ($R2 = 0.07$, $p < .05$) and positively related to symptoms of externalizing, but not internalizing symptoms. This relationship was also fully mediated by coping responses (Total $R2 = 0.22$, $p < .01$). Use of Disengagement coping strategies (avoidance, denial, wishful thinking) significantly ($p < .05$) predicted lower externalizing symptoms. Results suggest specificity related to gender, type of coping, and symptom outcomes in Bosnian youth exposed to post-war trauma reminders.

0303 **child**

Changes of PTSD in Adolescents Two Years Post the Taiwan Earthquake

Sue-Huei Chen, National Taiwan University., Dept. of Psychology; Yin-Chang Wu, National Taiwan Univ., Dept. of Psychology; Chia-Chen Chao, Chang Gung Univ., Dept. of Occupational Therapy; Po-Chun Chiang, National Taiwan Univ., Dept. of Psychology; Hsu-Min Tseng, Chang Gung Univ., Dept. of Healthcare Management

This study aims to report the changes of prevalence of PTSD rates and symptoms in adolescents over two years post the Taiwan 921 Earthquake. The devastating earthquake, measuring 7.3 on the Richter Scale, occurred in central Taiwan at the midnight of September 21, 1999 and killed about twenty-five hundred people. Since the earthquake, we have conducted two waves of data collection, one at the time right after the first and the other one the second anniversary, assessing on 2084 and 2080 adolescents from 4th to 9th grade living in two most severely damaged towns near the epicenter, respectively. Exposure Index for Youths and UCLA PTSD Index for DSM-IV (Taiwanese version) were administered. Preliminary analyses showed that variations of prevalence of PTSD rates and symptoms of each cluster were found over time and across grade groups. More younger adolescents met PTSD diagnosis in each year and endorsed more on the cluster B (reexperiencing) and D (hypervigilance). Although the prevalence decreased over time, substantial percentage of adolescents in heavily impacted areas still experience chronic PTSD symptoms two years after the Earthquake. The limitations of this study and needs for implementation of school-based programs for earthquake recovery will be discussed.

0304 **child**

Use of Childrens' Narratives to Inform Study of Post-Flood Symptoms

Lane Geddie, Department of Psychology, University of Dayton; Susan McCammon, Department of Psychology, East Carolina University; Angela Smith, Department of Child Development and Family Relations, East Carolina University; Nicole Childs, Department of Child Development and Family Relations, East Carolina University; Jennifer Harkness, Department of Child Development and Family Relations, East Carolina University; David Dosser, Jr., Department of Child Development and Family Relations, East Carolina University

Post-trauma evaluations have largely used closed-ended symptom reports which do not provide the clinician with an awareness of trauma aspects which most impacted the child. The purpose of this study was to compare the information obtained from childrens' open-ended descriptions of their experiences during Hurricane Floyd with their trauma symptoms and post-disaster adjustment. Ninety-seven third through sixth grade children provided narrative summaries of their hurricane/flood experiences on the Child PTSD Inventory. Four hundred seventy-seven statements were reduced into 23 meaning statements, which were condensed into 12 thematic clusters. The children also completed the Child Depression Inventory-Short Form, the Child's Reaction to Traumatic Events Scale, the diagnostic portion of the Child PTSD Inventory, and the Behavioral Assessment Scales for Children. Mann-Whitney U analyses were conducted to compare post-disaster adjustment in children who mentioned each of the cluster factors with those who did not. Results indicated that children who focused on positive aspects of the experience showed better adjustment on the BASC Emotional Symptoms Index and fewer PTSD symptoms. Children for whom experiences of evacuation, destruction, and power outages were salient displayed more PTSD symptoms. Combining qualitative and quantitative data offers a richer clinical picture, and can more specifically direct intervention efforts.

0305 **child**

Destructive Parentification in Child Victims of Sexual Abuse

Michelle Green, Georgia State University; Gregory Jurkovic, Georgia State University

The present study examined whether destructive parentification mediates the relation between family functioning and trauma symptomatology in a sample of 96 female preadolescent and adolescent victims of intrafamilial sexual abuse. Destructive parentification refers to extensive instrumental and emotional caretaking by children of family members in the absence of reciprocity and acknowledgment. Although this variable has long been viewed clinically as an important aspect of the family context of childhood sexual abuse, it has received surprisingly little empirical attention in the maltreatment literature. Although family stress did not covary with either destructive parentification or trauma symptomatology, family coping resources significantly related to destructive parentification, anxiety, anger, and posttraumatic stress in the child victim. Destructive parentification also significantly covaried with anxiety, depression, anger, posttraumatic stress, and sexual concerns. Further, as hypothesized, destructive parentification mediated the relation of family coping to anxiety and posttraumatic stress and partially mediated the relation of family coping to anger. The results suggest that destructive parentification serves as one mechanism through which poor family coping skills lead to problematic outcomes following childhood sexual abuse.

0306 **child**

Child Abuse at Japanese Schools

Yuichi Hattori, Sayama Psychological Services

In Japan in the early 1970s, many schools began to discipline fanatically children and adolescents for the total obedience to school authorities and tight regulations. Minor transgressions of school rules became sinful, and many students were subject to corporal punishment, emotional abuse, forced eating, and ostracism at schools. This educational totalism, called Kanri Kyoiku (controlled education), peaked in the 1980s and 1990s during which Japanese parents passively accepted many cases of physical and psychological violence at schools. Based on the translations of articles of newspapers and popular magazines, this poster session will present the gruesome reality of child abuse at Japanese schools, which Japanese majorities have avoided to face and have remained unattended by foreign countries. Representative cases include cases of child injuries resulting from disobedience to the commands of teachers, two cases of students killed by teachers, bullying and ostracism by peers who vent anger toward classmates, children and adolescents refusing oppressive school life, and the education boards of local cities that protect abusive teachers from legal prosecutions. The presenter will address to Japanese tendencies of not protecting their own children, blaming victims, avoiding confrontations with people at power, concealing problems under the lag, and being indifferent to justice and human rights.

0307 **child**

Red Flags Idaho: Prevention of Depression, Suicide and Trauma in Teens

Beth Hudnall-Stamm, Institute of Rural Health, Idaho State University; Ann Kirkwood, Institute of Rural Health, Idaho State University, Boise Center

Red Flags Idaho began on September 1, 2000, in an effort to reduce negative attitudes about mental illness (stigma) and increase referrals for mental health care for depression, suicide, and, following September 11, traumatic stress. The anti-stigma intervention centers on educational programs for teachers, administrators, and parents. All participants were asked to complete satisfaction surveys. The results of the surveys point to positive outcomes with regard to participants' attitudes as evidenced by the number who agree that mental illnesses are not the person's "fault". Ninety-five percent of teachers and 84 percent of parents rated the training positively. A significant portion of educators sought more detailed information about depression, traumatic stress, and other mental illnesses. Only 55% felt ready to use Red Flags in their schools, generally because they were concerned that they may not be able to handle youth who disclose their need for mental health care. Participants indicated they wanted more in-depth training, which lead to including licensed mental health professionals to the health education training staff. While Red Flags Idaho reached 1/3 of the state's school districts during the 2000-2001 school year, funding continues to be a barrier, even in the face of requests from school personnel.

0308 **child**

Role of Parental Depression in Bosnian Children's PTSD Symptoms

Gregory Jurkovic, Georgia State University; Deborah Weishaar, Georgia State University; Tamara Sarac, Augusta State University; Richard Morrell, Georgia State University; Samuel Fasulo, Georgia State University

As part of a larger project examining the long-term effects of war on children and their families in Bosnia, the present study explored the mediating role of parental depression in the relation of war exposure to children's posttraumatic stress. It was hypothesized that the parents' war-related distress would diminish the emotional processing of war experiences by family members, thus prolonging the children's posttraumatic stress reactions. Sixth, seventh, and eighth-grade children and their parents (mostly mothers) were recruited through an elementary school in Sarajevo in December 2000 (N = 134). The parents were administered measures of the family's war experiences and their own depression and the children a measure of posttraumatic stress. All of the measures were internally reliable. As expected, war exposure, parental depression, and children's posttraumatic stress symptomatology were significantly interrelated. Furthermore, as determined via hierarchical regression analysis, the association of war exposure to posttraumatic stress significantly diminished when parental depression was entered into the equation supporting its mediating role. Additional focus group data suggested that the

parents' distress, indeed, contributed to their reticence to discuss the war with their children. Importantly, the children's concern for their parents' emotional well being also appeared to contribute to this process.

0309 **child**

Abuse and Harassment by Authority Figures in Japanese Youth Sports

Rika Kawano, National Institute of Mental Health, National Center of Neulogy and Psychiatry; Yoshiharu Kim, Division of Adult Mental Health, National Institute of Mental Health

The majority of children who participate in sport should be situated in a safe and positive atmosphere with the support and encouragement of those involved with the sport. In addition, all individuals involved in sports activities with children and young people have a responsible to safeguard their welfare. However, abuse and sexual harassment by authority figures in youth sports have been existed. Abuse, violence, and sexual harassment were discussed in relation to how young athletes might harm their mental health such as identity, self-esteem, or self-confidence after they exposed. The major incidents on abuse and sexual harassment of sport settings reported in two major newspapers were presented, and the origins of such issues were clustered into five groups based on the processes or reasons of harassment and abuse by authority figures. For abuse and harassment in sports, leaders and educators of sports governing bodies, educational institutions and athletic programs in school should be encouraged to formulate, implement and evaluate a policy on abuse, violence, and sexual harassment between coaches and athletes. This paper must be utilized for the first step to investigate the psychological outcome after traumatic events by such violence in sport arena.

0310 **child**

Cognitive Appraisals in Sexually Abused Children

Leslie Kimball, Children's Advocacy Services of Greater St. Louis; Janelle Vincent O'Boyle, Children's Advocacy Services of Greater St. Louis; Jeffrey Wherry, Children's Advocacy Services of Greater St. Louis

It has been well-established that cognitions are affected by trauma and that recovery from a traumatic event often involves changing cognitions that are inaccurate or unhelpful. However, few assessment tools exist for measuring cognitive appraisals in children. This study presents a new tool, the Beliefs about Trauma (BAT) questionnaire (Wherry, Kimball, and Wise), a 53-item instrument designed to measure the cognitive attributions made about negative events by sexually abused children. It consists of two parts: The BAT-A measures cognitive appraisals of "bad things" in general that can happen to people, while the BAT-T measures cognitive appraisals of sexual abuse specifically. The BAT-T taps, among other concepts, the perceived duration of the abuse, perceived threat, beliefs about positive change due to the abuse, the predictability, consistency, and inescapableness of the abuse, perceptions of control, beliefs about the future, and the affective value of the abuse. This poster will present initial reliability and validity information on the BAT, including comparisons with the Children's Attributions and Perceptions Scale (CAPS; Mannarino, Cohen, and Berman, 1994) and relationships with the Trauma Symptom Checklist for Children (TSCC; Briere, 1995).

0311 **child**

Complex Adaptations to Trauma in a Child Outpatient Sample

Cassandra Kisiel, The Trauma Center; Lissa Duttra, Boston University; Bessel van der Kolk, The Trauma Center

Epidemiological and clinical studies and adult retrospective reports indicate that the majority of traumatized children are exposed to multiple adverse life experiences and exhibit a variety of symptoms that cannot be described simply in terms of PTSD. While research has traditionally focused on the relationship between specific trauma antecedents (e.g., sexual or physical abuse) and particular outcomes or disorders, there is a need to look more carefully at the complex psychosocial adaptation of child trauma survivors in order to better serve these children. The present study consists of a secondary analysis of child assessment data collected at the Boston Trauma Center between 1998-2000. The sample includes 123 children (ages 3-18) that received an outpatient evaluation or treatment during this period. The database contains information on demographics, trauma exposure, treatment history, contextual variables, mental health symptoms, risk behaviors, and formal assessment results. Preliminary results indicate the majority of children in this sample experienced diverse and multiple forms of trauma and exhibited symptom clusters beyond classic PTSD symptoms, including aggression, dissociation, and suicidality. Findings will be discussed in terms of the importance of utilizing and developing comprehensive assessment strategies that assess strengths as well deficits in order to guide child trauma treatment.

0312 **child**

Correlates of Adolescent Dating Violence in Middle School Adolescents

Monique LeBlanc, Medical University of South Carolina; Rochelle Hanson, Medical University of South Carolina

Dating violence occurs at staggering rates and is associated with lasting consequences. However, information regarding dating violence has come mostly from Caucasian colleg and high school samples, limiting the generalization of findings to younger adolescents and ethnic minorities. The purpose of this investigation was to examine ADV (adolescent dating violence) in predominately African-American adolescents attending middle school. First, demographic differences in ADV perpetration and victimization, including psychological, physical, and sexual abuse, were examined. Secondly, the relations among various forms of ADV and mental health outcomes, including depression, self-esteem, and posttraumatic stress symptoms, were explored. Third, correlates of ADV, such as gender stereotyping, domestic violence norms, and conflict management skills, were investigated. Participants were 146 seventh and eighth grade, predominately African-American (66.4%), students (50% boys). Results revealed demographic differences in rates of perpetration and victimization of dating violence. Second, psychological abuse victimization was related to depression, lowered self-esteem, and symptoms of posttraumatic stress, while psychological abuse perpetration was linked with posttraumatic stress. Lastly, regression analyses revealed three main findings. Domestic violence norms were related to psychological and physical abuse perpetration. Destructive responses to anger were linked with psychological, physical, and sexual abuse victimization and psychological abuse perpetration. Gender stereotyping predicted sexual abuse victimization. Implications of these findings are discussed.

0313 **2001 Student Research Award Winner Research Update**

Family Factors in Adolescents Exposed to Community Violence

Monique LeBlanc, Medical University of South Carolina; Shannon Self-Brown, Louisiana State University; Mary Lou Kelley, Louisiana State University

Community violence exposure has been associated with a plethora of adverse aftereffects. Greater understanding of compensatory and potentiating factors associated with community violence exposure is essential for effective clinical intervention and preventative strategies. The purpose of this study was to investigate the relations among community violence exposure, including neighborhood and school violence exposure, and two family factors, family violence exposure and parent-adolescent relationship skills. The moderating effects of family violence exposure and parent/adolescent communication problem solving skills upon the association of community violence exposure and negative and positive outcomes were examined. Participants consisted of 100 adolescents (93% African-American, 79% female), aged 12 to 20 years, and a parent. Results indicated that family violence exposure was related to psychological distress, including depression, anxiety, and social stress. School violence exposure was associated with personal adjustment, such as interpersonal relations and self-esteem, and neighborhood violence exposure with conduct, including health related behaviors and affiliation with positive

peers. Family relationship skills predicted parent rated externalizing problems and adaptive skills, such as social skills. Significant interactions were identified for family, school and neighborhood violence exposure, parent skills and neighborhood and school violence exposure, and adolescent skills and school violence exposure. These results have implications for prevention programs within the community and within the schools.

0314 **child**

A Prospective Study of Children Involved in RTAs and Assaults

Richard Meiser-Stedman, Department of Psychology, Institute of Psychiatry; Patrick Smith, Department of Psychology, Institute of Psychiatry; William Yule, Department of Psychology, Institute of Psychiatry; Tim Dalgleish, MRC Cognition and Brain Sciences Unit, Cambridge

The principal aims of this study are to determine the time-course of PTSD symptoms over the first three-months after a traumatic event, and identify predictors of PTSD symptomatology at 3-months. The predictors considered were derived from cognitive models of PTSD. One-hundred 10-16 year-olds who attended the Accident and Emergency Department of a hospital in South London following a road traffic accident or assault were recruited to participate in this study. Children and their parents were interviewed using an adapted version of the ADIS-C at 2-4 weeks after a traumatic event, and completed questionnaires at both 2-4 weeks and 3 months post-trauma. Potential predictors of PTSD that were investigated at the initial assessment point included the nature of memories of the trauma, thought control strategies, rumination, anxiety sensitivity, attitudes towards emotional expression, and attitudes towards worry. Data concerning the relationship between Acute Stress Disorder (ASD) at initial assessment and PTSD at 3 months will be presented, in addition to regression analyses of variables predicting PTSD at 3 months.

0315 **child**

Teacher-Rated Social Skills of New York Preschoolers Following 9/11

Pamela Mitchell, City University of New York, Graduate School and University Center; Anastasia Yasik, Pace University; Philip Saigh, City University of New York, Graduate School and University Center; Harout Armenian, Johns Hopkins University; Edward Blanchard, SUNY-Albany; A. Reese Abright, St. Vincents Hospital

This study examines the social skills of New York City preschoolers following the events of September 11, 2001. One group of preschoolers was directly exposed to the attack as their schools were approximately 1000 meters from the World Trade Center. These children witnessed burning buildings, some saw an airplane hit the towers, and some saw people jumping out of windows. All were enveloped in smoke and many were displaced from their homes and schools for extended periods of time. A second group of preschoolers who attended preschools in midtown Manhattan and the upper east side were not directly exposed to the attack and were not displaced. The Social Skills Rating System (SSRS) which was completed by the teachers provides data regarding the prosocial (e.g., academic competence, sharing) as well as maladaptive social behaviors (e.g., aggression, social withdrawal). Data analyses will compare the SSRS ratings of preschoolers who were directly exposed to the ratings of preschoolers not directly exposed to the attack. Data analyses will also compare the SSRS ratings of preschoolers with PTSD, traumatized children without PTSD, and non-traumatized children as based on diagnoses derived from a parent completed PTSD checklist.

0316 **child**

Weapons and War, Pears and Peace: Children's Perspectives in Bosnia

Briana Nelson, Kansas State University

High rates of psychological and emotional distress have been described by several authors who have direct experience working with survivors of the 1992-1995 war in Bosnia-Herzegovina (Beslija, 1997; Husain, 1996; Pullis, 1998). Many of the reports from children include descriptions of severe atrocities they directly witnessed. These experiences frequently are seen in the drawings (Green and Kocijan-Hercigonja, 1998; Pullis, 1998) and memories (Povrzanovic, 1995; Povrzanovic, 1997) of Bosnian children. This poster will present qualitative, phenomenological research, including observational research with Bosnian children (infants through 16 years old). The research site, Dom Bjelave Children's Home in Sarajevo, BiH, has approximately 115 children. Approximately 75% of the children are under 5 years of age; thus, they were born after the war. Most of the children know at least one parent, but the parents are unable to provide parental care. The children at Dom Bjelave represent a unique sample of children who experience negative direct (older children and adolescents) and indirect (younger children) effects from the war. The data presented will include primary post-war issues faced by the children and staff in this children's home. In addition, collected drawings of children's perspectives of peace will be presented.

0317 **child**

Resilience and Social Networks of Displaced Youngsters by Political Violence

Jorge Palacio, University del Norte at Colombia; Colette Sabatier, University Paris X—Nanterre

The first results of a research in displaced children and young people in the north of Colombia (98 subjects ; 9–16 years old) shows a high level of PTSD in children exposed to political violence and displacement, especially in their thoughts about the event, and an increased state of alertness, including depressive and anxious behavior. Female subjects proved to be the most psychologically affected in both situations. At the same time, younger people were more affected than the elderly. This research leads us to design the second research that was carried out for observing and focusing the relation between social networks and resilience of 60 displaced young (10 to 16; 33 girls) by political violence (supported by ECOS Nord Program). The instruments were: The Risk and Protective Factors Scale (Looper, 1999), The Social Network Questionnaire (Madariaga et col, 1993), the EPI (Eysenck Questionnaire) and a interview made in the basis of Wollin and Wolin model (1993). The first results don't showing significative relation between resilience levels and the social networks indicators, but a biological risk factors and the "external" personality appear to be close to adapted personal issues.

0318 **child**

Parent Rated Social Skills of New York Preschoolers Following 9/11

Philip Saigh, City University of New York, Graduate School and University Center; Anastasia Yasik, Pace University; Harout Armenian, Johns Hopkins University; Edward Blanchard, SUNY-Albany; Pamela Mitchell, City University of New York, Graduate School and University Center; A. Reese Abright, St. Vincent's Hospital

This study examines the social skills of New York City preschoolers following the events of September 11, 2001. One group of preschoolers was directly exposed to the attack as their schools were approximately 1000 meters from the World Trade Center. These children witnessed burning buildings, some saw an airplane hit the towers, and some saw people jumping out of windows. All were enveloped in smoke and many were displaced from their homes for extended periods of time. A second group of preschoolers who attended preschools in midtown Manhattan and the upper east side were not directly exposed to the attack and were not displaced. The Social Skills Rating System (SSRS) which was completed by the parents provides data regarding

the prosocial (e.g., academic competence, sharing) as well as maladaptive social behaviors (e.g., aggression, social withdrawal). Data analyses will compare the SSRS ratings of preschoolers who were directly exposed to the ratings of preschoolers not directly exposed to the attack. Data analyses will also compare the SSRS ratings of preschoolers with PTSD, traumatized children without PTSD, and non-traumatized children as based on diagnoses derived from a parent completed PTSD checklist.

0319 **child**

Teacher Ratings of Behavioral Functioning in Preschoolers After 9/11

Philip Saigh, City University of New York, Graduate School and University Center; Anastasia Yasik, Pace University; Pamela Mitchell, City University of New York, Graduate School and University Center; Harout Armenian, Johns Hopkins University; Edward Blanchard, SUNY-Albany; A. Reese Abright, St. Vincent's Hospital

This study examines the behavioral functioning of New York City preschoolers following the events of September 11, 2001. One group of preschoolers was directly exposed to the attack as their schools were approximately 1000 meters from the World Trade Center. These children witnessed burning buildings, some saw an airplane hit the towers, and some saw people jumping out of windows. All were enveloped in smoke. Many of these children and their parents were displaced from their homes and schools for extended periods of time. A second group of preschoolers who attended schools in midtown Manhattan and the upper east side were not directly exposed to the attack and were not displaced. The Behavioral Assessment Scale for Children (BASC) which was completed by the teachers provides data regarding internalizing problems, externalizing problems, learning problems, and adaptive skills. Data analyses will compare the teacher completed BASC ratings of preschoolers who were directly exposed to the ratings of preschoolers not directly exposed to the attack. Data analyses will also compare the BASC ratings of preschoolers with PTSD, traumatized children without PTSD, and non-traumatized children as based on diagnoses derived from a parent completed PTSD checklist.

0320 **child**

Psychological Functioning of New York Teachers Following September 11

Philip Saigh, City University of New York, Graduate School and University Center; Anastasia Yasik, Pace University; Edward Blanchard, SUNY-Albany; Pamela Mitchell, City University of New York, Graduate School and University Center; Harout Armenian, Johns Hopkins University; A. Reese Abright, St. Vincent's Hospital

This study examines the psychological functioning of New York City teachers following the events of September 11, 2001. One group of teachers was directly exposed to the attack as their schools were approximately 1000 meters from the World Trade Center. These teachers witnessed burning buildings, some saw an airplane hit the towers, and some saw people jumping out of windows. All were enveloped in smoke. A second group of teachers worked at preschools in midtown Manhattan and the upper east side and were not directly exposed to the attack or displaced. Teachers completed the PTSD Checklist (PCL), Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and State Trait Anger Expression Scale (STAXI). Data analyses will compare the PCL, BAI, BDI, and STAXI ratings of teachers who were directly exposed to the attack to the ratings of teachers who were not directly exposed. Data analyses will also compare the ratings of teachers with PTSD, traumatized teachers without PTSD, and non-traumatized teachers.

0321 **child**

Predictors of Dissociation in Children Who Have Been Sexually Abused

Megan Schacht, University of Missouri-St. Louis; Jeffrey Wherry, University of Missouri-St. Louis

Dissociative symptomology has primarily been examined in adult survivors of child sexual abuse, but not in children who have been sexually abused. This research evaluated how several factors of child sexual abuse, including child's age at first abuse, duration of the abuse, physical invasiveness, and the relationship of the perpetrator to the child, contribute to the development of dissociation in children. Two conceptualizations of dissociation were evaluated: a taxonomic (pathological) and a continuum view. The taxonomic view conceptualizes dissociation as a discrete abnormal state that is rarely experienced by normal individuals. The continuum view posits that a normal level of dissociation is present in all people. A total of 135 children who were sexually abused were included in this study. Dissociation was assessed using the Child Dissociative Checklist. Twelve children met criteria for pathological dissociation. This study found no relationship between the factors of child sexual abuse and pathological dissociation. The age at first abuse, the duration of the abuse, and the invasiveness of the abuse were all correlated with dissociative symptomology. This study provides a good initial framework for further research to evaluate the factors of child sexual abuse that predict dissociation in children.

0322 **withdrawn**

0323 **child**

Acute Stress and Physiological Responses to Burns in 1-4 Year Olds

Frederick Stoddard, Massachusetts General Hospital; Heidi Ronfeldt, Massachusetts General Hospital; Saxe Glenn, Boston University School of Medicine; Jerome Kagan, Harvard University; Nancy Snidman, Harvard University; Carlos Lopez, Boston University School of Medicine; Neha Chawla, Boston University School of Medicine; Jennifer Burns, Shriners Burns Hospital; Robert Sheridan, Massachusetts General Hospital

Fire and burn injuries are one of the leading causes of accidental deaths and injuries in young children, yet few studies have examined psychological and physiological reactions to burns in this population. This is in part due to researchers' ongoing struggle to develop a reliable and valid procedure to assess acute stress in preschoolers. The current study includes children ages 12-48 months who are admitted to the hospital with an acute burn. Parent interviews are conducted shortly after the child is hospitalized, one month after discharge from the hospital, and one year after discharge from the hospital. Nurses complete questionnaires about the children's acute stress symptoms and record the children's physiological data throughout their hospital stay. At this time, 22 participants have completed the first assessment of the study. Preliminary analyses indicate that children's pain during the first 7 days of hospitalization is positively correlated with parents' and nurses' reports of children's acute stress re-experiencing ($r=.88$, $p<.001$) and avoidance ($r=.92$, $p<.001$) symptoms. Results also indicate that children's heart rate during the first 7 days of hospitalization is positively associated with their re-experiencing ($r=.61$, $p<.05$) and total acute stress ($r=.65$, $p<.05$) symptoms as reported by their parents. All of these correlations remained statistically significant even when controlling for children's total body surface area that was burned. These preliminary analyses suggest that evaluating physiological reactions in addition to psychological reactions to trauma may result in a more accurate assessment of acute stress symptoms exhibited by young children.

0324 **Withdrawn**

0325 **child**

Variations in Patterns of Adjustment to Child Sexual Abuse

Christine Thayer, St. Louis University; Honore Hughes, St. Louis University; Jeffrey Wherry, University of Missouri-St. Louis

To determine whether meaningful subgroups emerge among a sample of sexually abused children, a cluster analysis was conducted. Data were archival and represented a population of child victims of sexual abuse, in which there was a clear disclosure of abuse. This study investigated subtypes of 83 victims of sexual abuse (ages 7-13 years) through a cluster analysis of adjustment variables. Variables included Internalizing and Externalizing from the Child Behavior Checklist (CBCL) and five subscales from the Children's Impact of Traumatic Events (CITES-R). Goals of this study were to explore the heterogeneity in patterns of adjustment within this population and to investigate whether these patterns are related to consistent factors. Using Wards and K-Means methods, results of this study revealed a stable three-cluster solution. A Mild Child-Reported Abuse-Related Distress cluster, a Parent-Reported Child Distress cluster, and a Severely Distressed Multiproblem cluster emerged. Derived clusters were compared on the basis of child-related and situational/contextual factors, as well as coping strategies, to determine if these factors differentiated victims of child sexual abuse. Similarities and differences across clusters and directions for future research are discussed. Findings suggest the need to develop treatment approaches targeting the diverse symptom manifestations of child sexual abuse victims.

0326 **child**

Psychological Functioning of New York Parents Following September 11

Anastasia Yasik, Pace University; Philip Saigh, City University of New York, Graduate School and University Center; Edward Blanchard, SUNY-Albany; Pamela Mitchell, City University of New York, Graduate School and University Center; Harout Armenian, Johns Hopkins University; A. Reese Abright, St. Vincent's Hospital

This study examines the psychological functioning of New York City parents following the events of September 11, 2001. One group of parents had preschoolers who were directly exposed to the attack as their schools were approximately 1000 meters from the World Trade Center. The children and parents witnessed burning buildings, some saw an airplane hit the towers, and some saw people jumping out of windows. All were enveloped in smoke. Many of these children and parents were displaced from their homes for extended periods of time. A second group of parents had preschoolers who attended preschools in midtown Manhattan and the upper east side and were not directly exposed to the attack or displaced. Parents completed the PTSD Checklist (PCL), Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and State Trait Anger Expression Scale (STAXI). Data analyses will compare the PCL, BAI, BDI, and STAXI ratings of parents who were directly exposed to the attack to the ratings of parents who were not directly exposed. Data analyses will also compare the ratings of parents with PTSD, traumatized parents without PTSD, and non-traumatized parents.

0327 **child**

Parent Ratings of Preschoolers' Behavioral Functioning Following 9/11

Anastasia Yasik, Pace University; Philip Saigh, City University of New York, Graduate School and University Center; Harout Armenian, Johns Hopkins University; Edward Blanchard, SUNY-Albany; Pamela Mitchell, City University of New York, Graduate School and University Center; A. Reese Abright, St. Vincent's Hospital

This study examines the behavioral functioning of New York City preschoolers following the events of September 11, 2001. One group of preschoolers was directly exposed to the attack as their schools were approximately 1000 meters from the World Trade Center. The children witnessed burning buildings, some saw an airplane hit the towers, and some saw people jumping out of windows. All were enveloped in smoke. Many of these children and their parents were displaced from their homes for extended periods of time. A second group of preschoolers who attended preschools in midtown Manhattan and the upper east side were not directly exposed to the attack and were not displaced. The Behavioral Assessment Scale for Children (BASC) which was completed by the parents provides data regarding internalizing problems, externalizing problems, learning problems, and adaptive skills. Data analyses will compare the BASC ratings of preschoolers who were directly exposed to the ratings of preschoolers not directly exposed to the attack. Data analyses will also compare the BASC ratings of preschoolers with PTSD, traumatized children without PTSD, and non-traumatized children as based on diagnoses derived from a parent completed PTSD checklist.

Posters in Track 4

Clinical and Interventions Research (clin res)

Presented: **Friday, 8:30 a.m.–9:45 a.m.**

Poster Numbers 0401–0464

0401 **clin res**

Predicting Adjustment in Short-Term Humanitarian Workers

Elizabeth Adams, Headington Program, Fuller Graduate School of Psychology; Amy Marty, Headington Program, Fuller Graduate School of Psychology; Chris Adams, Headington Program, Fuller Graduate School of Psychology; Bo Cassell, Nazarene Youth in Mission; Heidi Bibler, Nazarene Youth in Mission; Jeffrey Bjorck, Fuller Graduate School of Psychology; Cynthia Eriksson, Headington Program, Fuller Graduate School of Psychology; David Foy, Headington Program, Fuller Graduate School of Psychology

Humanitarian staff are at high risk for exposure to traumatic events. Research indicates that individuals who have previously been exposed to trauma may be vulnerable to psychological distress. Team support serves as a buffer between stressful situations and psychological distress. Therefore, it was hypothesized that in short-term humanitarian aid workers prior trauma exposure would be positively associated with psychological distress, and team cohesion would be negatively associated with psychological distress. In this study, 84 young adults who participated in the Nazarene Youth in Mission short-term humanitarian work experience completed both pre-trip and post-trip questionnaires. Analyses indicated that a significant positive correlation exists between prior trauma exposure and psychological distress. In addition, a significant negative correlation exists between team cohesion and psychological distress. Multiple regression analyses of psychological distress indicated significant variance accounted for by prior sexual abuse. However, team cohesion did not enter as a significant predictor. Exposure to traumatic events and individuals' reactions to them may lead to chronic psychological distress for humanitarian aid workers serving in high risk environments. This study elucidated that prior exposure to traumatic events heightens their distress levels, while team support fosters their positive psychological adjustment.

0402 **clin res**

Generalized Expectations for Harm in an Adolescent Community Sample

Kathy Berenson, New York State Psychiatric Institute; Patricia Cohen, NY State Psychiatric Institute/Columbia University College of Physicians and Surgeons

Family and community violence were examined as predictors of generalized expectations for other forms of future harm, using data from a representative community sample of 751 adolescents longitudinally assessed with multiple informants. Indicators of family violence exposure included official records and self-reports of physical/sexual abuse, and mothers' reports of violence between family members. Community violence assessments, made when the adolescents were 14 on average, included mothers' reports of neighborhood dangerousness as well as self-reports of violence at school. Two years later, the adolescents completed a measure of their expectations

and concerns about future personal harm from nuclear war, accidents, and environmental pollution. Regression analyses controlling for demographic variables and a prior assessment of the adolescent's own antisocial behavior showed that generalized harm expectations were significantly associated with compound violence exposure — in both the family and the community — whereas they were not associated with violence exposure in only one of these domains. In turn, such expectations were predictive of negative shifts in perceptions of the self and others, and increased feelings of helplessness over the next five years. Implications of generalized harm expectations are addressed, highlighting particular risks attached to the pervasiveness of threatening experiences across multiple contexts.

0403 **clin res**

The Effects of Attachment and Trauma Exposure on College Adjustment

Bethany Brand, Towson University; Jonathan Mattanah, Towson University

Studies have found that college students with a history of trauma exposure are likely to have greater difficulty adjusting to college. However, not all students exposed to trauma have difficulty adjusting to college. Researchers are beginning to explore the role of moderating variables, such as style of attachment on trauma exposure and outcome. The current paper explored security of attachment as a potential moderator of the effect of trauma on college adjustment. It is expected that traumatized students who have insecure attachment will have poorer adjustment than securely attached traumatized students as well as non-traumatized students. Data on attachment to parents, trauma exposure, and college adjustment (assessed with a variety of clinical and academic measures) were gathered via self-report from 337 students at a mid-size regional university in the Northeast. Preliminary analyses show a high rate of trauma exposure among college students (over 80%) and a high rate of insecure attachment among traumatized students. Further analyses will focus on the interactive effects of attachment and trauma exposure on social, emotional, and academic adjustment to college. Implications for future research and treatment will be discussed.

0404 **clin res**

Smoking and Psychopathology in a Large Treatment-Seeking Cohort

Todd Buckley, VA Boston Healthcare System and Boston University School of Medicine; Michele Bedard, VA Boston Healthcare System, National Center for Posttraumatic Stress Disorder; Jennifer Greif, VA Boston Healthcare System, National Center for Posttraumatic Stress Disorder

An analysis of smoking behavior on a consecutive series of referrals to a PTSD Clinic in a VA Medical Center was conducted (N = 407). Results revealed that 43% of referrals were smokers. This is nearly double the rate of smoking in the general population. The relationship between smoking, health behaviors (e.g., alcohol intake), and indices of psychopathology were further explored. Individuals diagnosed as both PTSD-positive and nicotine dependent had poorer health habits relative to those who were PTSD-positive but non-smokers. PTSD/smokers had significantly higher scores on measures of alcohol use [M = 12.6 (SE = 1.9)] relative to PTSD/non-smokers ([M = 9.0 (SE = 1.2)], $t = 2.87$, $p < .05$. Likewise, PTSD/smokers reported drinking significantly more cups of caffeine per day [M = 4.2 (SE = .28)] relative to PTSD/non-smokers [M = 3.0 (SE = .24)], $t = 3.22$, $p < .01$. The smokers also showed greater levels of affective distress as measured by the BDI, $t = 1.82$, $p = .06$, and the Psychasthenia scale of the MMPI-2, $t = 2.0$, $p < .05$. This descriptive research builds on previous work which suggests that PTSD is a cardiovascular risk factor, partially as a function of risky health behaviors.

0405 **clin res**

PTSD: Clinical Characteristics of Patients at a Military Health Center

Jose Waldo Camara Filho, Universidade de Federal Pernambuco; Everton Sougey, Universidade Ferderal de Pernambuco

The recognition of Post-Traumatic Stress Disorder (PTSD) as a diagnostic category has been accompanied by a wealth of studies dealing with its various aspects. In Brazil, there is little literature about this subject and the same is true when considering the police force. This study aims to verify the existence of PTSD in a high-risk group connected to the Pernambuco Military Police Health System. It is a descriptive clinical study. The predominant characteristics that were identified in the sample helped to create a profile of this group: male, aged around 34, low ranking officer with a per capita family income lower than two minimum salaries. They were the direct victims of the traumatic event, had previous record of earlier traumas and the median duration of the disorder was 11 months. Psychiatric comorbidity was present in 53% of the sample and was significantly more likely among those who had the disorder lasting more than two years; 40% of the cases had previously sought psychiatric help and this diagnosis had not been considered. The data presented here indicate the necessity of spreading knowledge about PTSD, along with the adoption of specific preventative, therapeutic and rehabilitation measures, which are currently nonexistent.

0406 **clin res**

Depression and Massive Terrorist Attacks

Maria Luisa Cbanas, AVT; Enrique Baca, Universidad Autonoma de Madrid; Juan Antonio Corredor, AVT; Enrique Baca-Garcia, Fundacion Jimenez Diaz

Introduction. In the last forty years Spain has suffered a quasi-continuous and intensive terrorist activity. The estimate number of people involved, directly or indirectly, in attacks are more of ten thousands. In 1981 a significant part of these victims created the AVT (Association of Terrorism Victims). In 1998 the AVT created the "Phoenix Project", a cumulative register contains all significant data about the victim, the attack and its social, psychological and somatic consequences. Actually, the number of members of AVT was approximately 6000. The main hypothesis of this communication is that depressive disorders are common in victims (direct victims) and relatives (indirect victims) after terrorist attacks. The secondary hypothesis is that depressive disorders are more common in massive attacks' victims and relatives. Method. The "Phoenix Project" data are obtained by a two-days standardized interview plus psychopathological questionnaires, conducted by a psychologist-social worker team in the home of the victim. The investigators are identified as personnel of AVT. The psychopathological questionnaires used was HAM-D, STAI (trait and state), GHQ, (28 items), PRIME-MD and EPI. In this presentation two sub-populations was considered by degree of involvement in the attack: direct victims (DV) and indirect victims (IV). These groups were compared in terms of sex, type of attacks, and PRIME-MD, using chi square test. Results. 901 people (681 IV and 220 DV) answer properly the questionnaire. More than half of the sample present depression (475). DV present more risk of depression than IV (Chi-square=6.190, df=1, p=0.013; OR=1.478, OR CI 95% 1.086-2.013). However the type of terrorist attacks (massive or specific) only affects significantly to IV (Chi-square=3.821, df=1, p=0,051). Specific terrorist attacks increase the risk of depression in IV (OR=1.350, OR CI 95% 1.000-1.824). Conclusion. Direct victims are more frequently affected by depression than indirect victims. Specific terrorist attack is more harmful to relatives of the victims.

0407 **clin res**

Acute Posttraumatic Stress and Related Factors after Earthquake

Pakize Cervatoglu Geyran, Psychological Trauma Treatment Center, Bakýrkoy Research and Educational Hospital

In this presentation,189 cases who applied for treatment because of their actual psychological problems after 17/August/1999 earthquake were eavulated.Cases were selected randomly among the applications made to the Psychological Trauma Treatment Center during 1-6 month period after earthquake.The variables such as acute posttraumatic stress symptoms, peritrauma responses (dissociation,fear,physiological response),earthquake severity and childhood trauma history were evaluated.The factors related the acute PTSD diagnosis and severity of the posttraumatic stress were investigated.The results show that peritrauma response variables have a primary importance when compared to earthquake severity and chilhood trauma history.They meaningly predict acute PTSD diagnosis and the severity of posttraumatic stress symptoms.

0408 **clin res**

Related Factors with Chronic Posttraumatic Stress in the Community

Pakize Cervatoglu Geyran, Psychological Trauma Treatment Center, Bakýrkoy Research and Educational Hospital

In this presentation, 82 cases who selected from different sample after 17/August/1999 earthquake were eavulated.Cases were assessed on the community setting and evaluated during 1-6 month period after earthquake.Some of them were living in Istanbul before and after earthquake and during the disaster.(periphery group).Others were living on the prefabricated place after earthquake and they experienced the disaster on the fail-zone directly(central group).The variables such as acute(immediate) posttraumatic stress symptoms during 1 month after earthquake,peritrauma responses (dissociation,fear,physiological response),earthquake severity (objective and subjective) were evaluated.Severity of this variables were similar between groups, earthquake except.Objective severity was higher in the central group.The factors related the chronic PTSD diagnosis and severity of the posttraumatic stress were investigated.Effectiveness of the group type (central-peripfery) and of the PTSD diagnosis on the dependent variables were analyzed collectively and individually. The results show that chronic PTSD has relation with the peritrauma and acute (immediate) response variables rather than the variables connected with the earthquake.

0409 **clin res**

Effectiveness of Assesing Setting on the Predictors

Pakize Cervatoglu Geyran, Pscyhological Trauma Treatment Center, Bakýrkoy Research and Education Hospital

In these presentation, chronic PTSD symptoms and the related factors in 130 cases selected from 2 different sampling groups 6 months after 17/August /1999 eartquake were evaluated. Assesing settings features of cases were differing depending on the type of the sample. Clinical sample was 48 cases, community sample was 82. All of cases had no treatment application before. Firstly, postraumatic stress symptoms were evaluated by PCLC and they compared between groups. It was not found any differences. Secondly, It was assessed severity of peritraumatic dissociation, fear, physiological response; severity of acute (immediate response during 1 month after earthquake) posttraumatic symptoms and earthquake severity (objective and subjective) were asessed retrospectively. All of these variables were similar between groups. Effectiveness of the group type (clinical and community) and effectiveness of PTSD diagnosis on severity of the dependent variables were analyzed by MANOVA, collectively and individually. The results show that the cases selected the different assesing settings were similar to the chronic stress symptoms and related factors. However, severity of the peritrauma responses and severity of the acute posttraumatic stress symptoms were related to the PTSD diagnosis only. In addition to these results, PTSD diagnosis has relation with these variables rather than the variables connected with the earthquake severity.

0410 **clin res**

Quality of Life and PTSD Symptoms Two Years Post the Taiwan Earthquake

Sue-Huei Chen, National Taiwan University, Department of Psychology; Yin-Chang Wu, National Taiwan University, Department of Psychology; Ya-Ping Lee, National Taiwan University, Department of Psychology; Chun-Han Liang, National Taiwan University, Department of Psychology

This study aims to investigate trauma exposure, resource loss, and impacts on quality of life (QOC) and PTSD symptoms of middle-aged adults living near the epicenter two years post the Taiwan 921 Earthquake. Two hundred and sixty nine adults from the most severely damaged county were evaluated by semi-structured interview with self-report measures including the Posttraumatic Stress Reaction Index, WHOQOL-BREF (Taiwan version), Earthquake Exposure Index, and information about changes of financial condition and demographic background. Results of preliminary analyses indicate that: 1) although earthquake survivors reported slightly worse on overall and each aspect of QOL than normal healthy adults, the difference did not reach statistical significant level; 2) changes of financial condition yield significant effects on PTSD symptoms and QOL; and 3) among earthquake survivors, those whose financial condition has changed, i.e., both getting worse and getting better groups, reported significantly more PTSD symptoms, in comparison with the unchanged group; 4) the getting worse group showed significantly worse on overall, and physical, psychological, and environmental aspect of QOL, but not on social aspect. Results will be discussed in terms of the interplay of resource loss, resource gain, and PTSD symptoms along a successful posttraumatic recovery process.

0411 **clin res**

Female Ex-Prisoners of War: Over Fifty Years After Captivity

Joan Cook, University of Pennsylvania and Philadelphia VA Medical Center; Robyn Walser, National Center for PTSD, VA Palo Alto Health Care System; Javaid Sheikh, VA Palo Alto Health Care System and Stanford University

Although there is a large body of research on the effects of the prisoner of war (POW) experience upon male veterans, little is known about the frequency and impact of this experience on females. In a recent cross sectional survey of 619 ex-POWs, only twenty-one respondents were civilian women interned by the Japanese Army during World War II. The purpose of this poster is: 1) to assess the current degree of PTSD in these women, and to 2) explore the effects of demographic and internment-related items on current PTSD. Their mean age was 72.80 years and the majority was Caucasian. Though only four women met diagnostic criteria for PTSD, another five meet criteria for sub-threshold PTSD. Severity of PTSD symptoms was directly related to severity of captivity trauma ($r = .54$), and perception of long-term impact on psychological health ($r =. 50$), working life ($r =. 49$) and marriage ($r = .49$), (all p's $< .05$). Though the number of women captured and imprisoned during wartime is not large, documenting the long-term effects of captivity trauma on the adjustment of available ex-POWs is essential to the provision of appropriate health care to this population and younger females in the future.

0412 **clin res**

Posttraumatic Stress in Earthquake Victims: A Prospective Investigation

Guliz Elal, Bogazici University; Zeynep Armay, Bogazici University; Tanya Lawrence, Bogazici University

A group of 122 adult survivors were evaluated one week (Phase 1) and six months (Phase 2) after an earthquake (magnitude 5.8. on the Richter scale) in Afyon, Turkey. Participants were recruited on a convenience basis. Self-report questionnaires, including measures of dissociation, peritraumatic distress, depression, anxiety, severity of exposure and disruption and past trauma history, as well as a personal information sheet were administered. PTSD at Phase 2 was measured using the Traumatic Stress Symptom Checklist (Basoglu et al., 2001) which is a screening instrument developed for use with earthquake survivors. Gender, level of education and employment status predicted posttraumatic distress at both phases. Dissociation was more strongly associated with acute distress but not with PTSD. Measures taken at Phase 1 that predicted PTSD status at 6 months were level of disruption, peritraumatic distress, depression and IES scores.

0413 **clin res**

Lower Hippocampal Volume as a Risk Factor for Chronic PTSD

Mark Gilbertson, Manchester VA Medical Center, Harvard Medical School; Martha Shenton, Department of Radiology, Brigham and Womens Hospital; Aleksandra Ciszewski, Department of Radiology, Brigham and Womens Hospital; Kiyoto Kasai, Department of Radiology, Brigham and Womens Hospital; Stephanie Williston, Manchester VA Research Service; Lynn Paulus, Manchester VA Research Service; Natasha Lasko, Manchester VA Research Service, Harvard Medical School; Scott Orr, Manchester VA Research Service, Harvard Medical School; Roger Pitman, Massachusetts General Hospital, Harvard Medical School

Animal studies indicate that exposure to severe stress can damage the hippocampus of the brain. Recent human studies have shown smaller hippocampal volume in posttraumatic stress disorder (PTSD). Although this reduction may be due to neurotoxic effects of trauma, there is also the possibility that lower hippocampal volume is a pre-existing vulnerability factor for PTSD. We examined hippocampal volumes via magnetic resonance imaging (MRI) in monozygotic twins discordant for combat exposure during the Vietnam War. The sample comprised 17 twin pairs in which the combat-exposed brother met criteria for chronic PTSD and 23 twin pairs in which the combat-exposed brother had no history of PTSD. A subsample of twelve PTSD pairs contained a combat-exposed twin with severe PTSD, as manifested by a Clinician-Administered PTSD Scale (CAPS) total score > 65. PTSD severity in combat-exposed PTSD twins was negatively correlated with both their own hippocampal volumes, as well as the hippocampal volumes of their combat-unexposed co-twins. Significantly smaller hippocampi were observed in both the combat-exposed and unexposed members of the 12 severe PTSD pairs compared with non-PTSD pairs. These findings provide the first evidence that smaller hippocampi may constitute a pre-existing vulnerability factor for the development of PTSD in trauma-exposed individuals.

0414 **clin res**

A Comparison of CBT and EMDR for Sexually Abused Iranian Girls

Nasrin Jaberghaderi, Allame Tabatabaee University, Tehran; Ricky Greenwald, Mount Sinai School of Medicine; Allen Rubin, University of Texas at Austin; Shiva Dolatabadi, Allame Tabatabaee University, Tehran; Shahin Oliaee Zand, Allame Tabatabaee University

Fourteen randomly assigned Iranian girls ages 12-13 who had been sexually abused received up to 12 sessions of CBT or EMDR treatment. Assessment of post-traumatic stress symptoms and problem behaviors were completed at pre-treatment and 2 weeks post-treatment. Both treatments showed very large effect sizes on the post-traumatic symptom outcomes, and a modest effect size on the behavior outcome, all statistically significant. A non-significant trend on self-reported post-traumatic stress symptoms favored EMDR over CBT. Treatment efficiency was calculated by dividing effect size by number of sessions; EMDR was significantly more efficient. Limitations include small N, single therapist for each treatment condition, and lack of long-term follow-up. These findings suggest that both CBT and EMDR can help girls to recover from the effects of sexual abuse, and that structured trauma treatments can be applied to children in other cultures.

0415 **clin res**

Writing-Based Therapy for Women with a History of Trauma

Angela Heiligenthal, Southern Illinois University; Rebekah Bradley, Southern Illinois University; Maureen O'Connell, Southern Illinois University

A treatment-outcome study design examined the efficacy of a writing-based therapy on symptoms of Complex PTSD in socially and economically marginalized women who have experienced interpersonal violence. The study was specifically designed to provide treatment to women who typically have limited access to and/or involvement in psychotherapy. This individual therapy focused on writing assignments designed to help them increase the level of safety in their lives, improve self esteem and body image, address issues of anger and shame, help the women create less fragmented, more meaningful life narratives and encourage them to reconnect with their communities. Data from three case studies in which symptoms levels decreased over time will be presented. Both quantitative data (scores on domains of functioning assessed by the Multidimensional Trauma Recovery and Resiliency Interview (MTRR), the Trauma Symptom Inventory (TSI), the self report version of the Structured Interview for Disorders of Extreme Stress (SIDES), the Brief Symptom Inventory (BSI), the Clinician-administer Post-traumatic Stress Disorder Scale (CAPS), and qualitative data (analyses of themes in the writings of participants) will be presented. The relationship between Complex PTSD symptoms and themes in the writings will be discussed.

0416 **clin res**

PTSD and Health in Primary Care Patients: Mediating Effects of Coping

Brandy Henson, Washington State University; Paige Ouimette, Washington State University, VAPAHCS and Stanford University Medical School

This study examines the function of coping behavior on the relationship between posttraumatic stress disorder (PTSD) and physical health. Ineffective coping may maintain PTSD symptoms and lead to poorer health outcomes. As part of a larger study of PTSD and health, 134 patients from primary health clinics completed self-report measures on physical health and coping, and completed a structured clinical interview. Preliminary results reveal significant relationships between health, coping, and PTSD. Health and PTSD symptoms were related to measures of coping, specifically cognitive avoidance and emotional discharge coping. Future analysis will investigate the mediating effects of cognitive avoidance and emotional discharge between PTSD and physical health. This study provides an initial investigation into the effects of coping on PTSD and health within primary care patients.

0417 **clin res**

Tailoring a Narrative Writing Group for Veterans with PTSD

Elsa Hernandez, University of Mississippi Medical Center/VA Medical Center; Judith Lyons, VA-South Central MIRECC/University of Mississippi Medical Center; Judith Tandy, VA Medical Center

Narrative writing about traumatic and stressful events has been successfully implemented in various populations (e.g., college students, prison inmates). However, applying this intervention with combat-trauma veterans can be problematic because of characteristics common to this population (e.g., limited education, suspiciousness, disability compensation concerns). The process of introducing a written exposure therapy component within an

existing residential PTSD treatment program is described, including discussion of facilitative strategies and possible obstacles. The residential treatment program is a 7-week program that accepts 12 veterans per cohort. Veterans' attitudes about the writing component of treatment and their self-reported PTSD symptoms are assessed before and after their participation in the writing intervention. Veterans' responses to the intervention varied across the first three cohorts, with each new cohort becoming increasingly accepting of the intervention. As the writing intervention has become better integrated into the overall treatment program structure and better accepted by the veterans, individual differences in veterans' attitudes toward the intervention continue to emerge. By the date of the conference, five cohorts will have completed the assessment and treatment procedures, allowing for exploration of individual factors that explain attitude change and treatment engagement over the course of the program.

0418 **clin res**

Prevalence of Life Events in Veterans and Non-Veterans

Gregory Inman, Georgia State University; Greg Jurkovic, Georgia State University; David Ready, Atlanta VAMC; Fran Norris, Georgia State University; Julia Perilla, Georgia State University

Vietnam veterans are entering late adulthood and may warrant special considerations in the assessment and treatment of PTSD. Previous research on World War II veterans indicates that normal life cycle changes (e.g., retirement) and/or other trauma may lead to exacerbation or delayed onset of PTSD symptoms. Examining precipitating events prompting first time service seeking may contribute to an understanding of how the aging process affects PTSD assessment, treatment, and theory. This study examined precipitating factors leading to first-time treatment seeking in Vietnam veterans at the Atlanta VA Hospital. Seventy veterans seeking initial treatment for PTSD symptoms were interviewed at intake to determine what life events and/or traumatic events occurred in the past year. Life events were measured using a scale designed for adults aged 55 and older. The Traumatic Stress Schedule was used to assess traumatic events. The prevalence of normative and traumatic life events in this sample was compared to a sample of 60 male veterans seeking treatment in the VA Primary Care Clinic and a sample of 60 men from a county jury pool. It was hypothesized that after adjusting for marital status and SES, the mean number of events and event frequencies in the PTSD treatment seeking group would significantly exceed that of the other two groups.

0419 **clin res**

Prevalence of and Reactions to Client Suicide Among Social Workers

Jodi Jacobson, University of Maryland, School of Social Work; Sara Sanders, Elizabethtown College; Laura Ting, University of Maryland, School of Social Work

Research supports that clinical work with suicidal clients can impact therapists professionally and personally. Reactions to client suicide and attempts have been studied among various disciplines; yet the prevalence of and reactions to client suicide and attempts among social workers has been practically ignored by the research community. This lack of research contributes to the related lack of social work theory and practice standards for working with suicidal clients and coping with the often-stressful reactions experienced after a client suicide or attempt. The present study is based on a pilot study, completed by the authors in spring 2001. The research plan has been expanded to provide a more accurate measurement of the prevalence and a more comprehensive understanding of the reactions and postvention activities used to cope with client suicide and attempts. Using the Impact of Event Scale, the Secondary Traumatic Stress Scale, and questions developed from the literature, preliminary findings will be presented and compared to results from the pilot study. Findings from the pilot study indicated that social workers experienced sub-clinical levels of intrusion and avoidance reactions, as well as significant gender differences in both reactions to and coping skills used after client suicide or attempts.

0420 **clin res**

Coping Efficacy as a Mediator Between Cognitions and PTSD

Lesley Johnson, University of Colorado at Colorado Springs; Charles Benight, University of Colorado at Colorado Springs; Casey Sacks, University of Colorado at Colorado Springs

Previous research has demonstrated the importance of posttraumatic cognitions in the development of PTSD. The Posttraumatic Cognitions Inventory assesses negative cognitions about the self and world and has discriminated between individuals with and without PTSD. Coping self-efficacy (CSE; i.e., the perceived ability to cope with posttraumatic recovery demands), has also predicted posttraumatic distress. More recently, CSE has mediated relationships between important variables such as lost resources and distress, and acute stress response and PTSD. For the current study, it was hypothesized that trauma-specific CSE would mediate the relationship between posttraumatic cognitions and PTSD symptomatology (measured by the PDS and the IES-R). Participants included 61 women (mean age = 33) who were recent victims of domestic violence. Results indicated that the relationship between the PTCI and the PDS ($\beta = .53$, $p < .01$) was reduced to non-significance ($\beta = .25$, p = ns) with the addition of domestic violence-specific CSE as a mediator. This mediation was also found with the IES-R as the measure of PTSD. It is theorized that CSE may be a critical factor through which posttraumatic cognitions develop into PTSD. Implications of these results, including the interrelationships among these variables, will be discussed.

0421 **clin res**

Misinterpretation of Physiological States Predict PTSD and Depression

Lesley Johnson, University of Colorado at Colorado Springs; Chalres Benight, University of Colorado at Colorado Springs

Interpretation of physiological states is theorized to be one of four main sources of information regarding an individual's perceived ability to cope with stressors. Additionally, studies with panic disorder patients indicate that cognitive interpretations of physiological states have important implications for levels of distress and pathology. The purpose of this study was to investigate the ability of such interpretations to predict psychological outcomes following trauma. Participants included 61 women who were recent victims of domestic violence. The sample (mean age = 33) was characterized by financial hardship and shelter residence. The Bodily Sensations Interpretations Questionnaire-Domestic Violence (BSIQ-DV) was created for this study and required participants to rank three explanations (1 negative, 2 neutral) for each of 25 descriptions of ambiguous stimuli. Results indicated that the BSIQ-DV accounted for a 13% of the variance in depression (beta = .52, $p < .01$) after controlling for number of lifetime traumas, severity of abuse, and time in past abusive relationships. It also accounted for 11% of the variance in PTSD (beta = .46, $p < .01$) over and above available money, severity of abuse, and number of lifetime traumas. In both cases, the more negative the interpretations of bodily sensations, the higher the levels of symptomatology. Implications, including the need for treatment surrounding such interpretations, will be addressed.

0422 **clin res**

PTSD, Depression, and Memory Impairment in Combat Veterans

Catherine Kutter, National Center for PTSD, Boston VA; Rebecca Prestel, National Center for PTSD, Boston VA; Wendy Stegman, National Center for PTSD, Palo Alto VA; Lorraine Stewart, National Center for PTSD, Palo Alto VA; Danny Kaloupek, National Center for PTSD, Boston VA; Steven Woodward, National Center for PTSD, Palo Alto VA

Memory complaints are common among individuals suffering from PTSD, and previous research has documented memory deficits in individuals with PTSD. In an earlier investigation, we found that PTSD symptoms associated much more strongly with subjective memory complaints than with objectively assessed memory deficits: Individuals with PTSD reported dramatic subjec-

tive memory complaints but demonstrated only mild impairment on objective measures of memory performance. In the present study, we evaluated depressive symptoms (Beck Depression Inventory) and PTSD symptoms (Clinician Administered PTSD Scale) as predictors of memory performance in a sample of 87 combat veterans participating in a larger study of the effects of combat stress on the brain. Participants completed objective measures of verbal (Wechsler Memory Scale—Logical Memory, Hopkins Verbal Learning Test) and visual (Rey Osterreith Complex Figure Test, Rey Visual Design Learning Test) memory. Although both PTSD and depression were associated with memory deficits, linear regression analyses indicated that symptoms of depression accounted for more variance across memory measures than did symptoms of PTSD. These results suggest that the memory complaints reported by many individuals with PTSD may reflect depression or other aspects of emotional distress rather than being specifically associated with PTSD. Implications of these findings will be discussed.

0423 **clin res**

Social Anxiety and PTSD Avoidance/Numbing Symptoms in Combat Veterans

Catherine Kutter, National Center for PTSD, Boston VA; Rebecca Prestel, National Center for PTSD, Boston VA; Wendy Stegman, National Center for PTSD, Palo Alto VA; Lorraine Stewart, National Center for PTSD, Palo Alto VA; Danny Kaloupek, National Center for PTSD, Boston VA; Steven Woodward, National Center for PTSD, Palo Alto VA

PTSD has been associated with a broad array of difficulties that extend beyond the specific symptoms that define this disorder. Although social anxiety has been associated with PTSD, specific aspects of PTSD that co-occur with social anxiety are less understood. In this study, we evaluated the relationship between PTSD and social anxiety in a sample of 87 combat veterans participating in a broader study of the effects of combat stress on the brain. We assessed PTSD symptoms using the Clinician-Administered PTSD Scale and asked participants to rate their level of anxiety following a laboratory task designed to induce social-evaluative anxiety (the Trier Social Stress Test). Consistent with previous research, we found that PTSD severity correlated significantly with participants' reports of social anxiety. Evaluation at the PTSD symptom cluster level indicated that the avoidance and numbing symptom cluster was the strongest predictor of social anxiety. Further evaluation at the symptom level revealed that two symptoms were strongly associated with social anxiety: Feeling distant or cutoff from other people and avoiding thoughts and feelings associated with the trauma. Clinical and research implications of the observed relationships among social avoidance, trauma avoidance, and social-evaluative anxiety will be discussed.

0424 **clin res**

Use of IRT for Addressing Nightmares Among Veterans with PTSD

Jennifer Lambert, Providence VA Medical Center; Follin Key, Providence VAMC; Nancy Davis, Providence VAMC; Jocelyn Howard, Providence VAMC; Landis Mitchner, Providence VAMC; M. Shea, Providence VAMC

Several studies have found that a cognitive-behavioral treatment, imagery rehearsal therapy or IRT, has successfully reduced distressing dreams and improved sleep among individuals with recurring nightmares. Additional benefits include reduced symptoms of PTSD, anxiety, and depression, reduced hostility, and fewer somatic complaints. A 6-week IRT treatment manual has been developed to address nightmares and sleep difficulties among veterans receiving treatment at the PTSD Clinic of the Providence VA Medical Center. The central component of IRT is changing the content of a nightmare and repeatedly imagining the new dream as a way to replace the recurrent distressing one. Treatment is being provided both on an individual and group basis and includes the following elements: education about the relationship between PTSD and nightmares, education about sleep hygiene, relaxation and imagery training, and use of imagery rehearsal techniques. To date, 7 individuals have completed the intake assessment (all males with an average age of 55). Three individuals have completed the group treatment and 2 have completed the individual treatment. Preliminary reports suggest that IRT may have some benefits in reducing frequency of nightmares, improving sleep, and providing coping skills for managing daily stressors. Problems and barriers to treatment will be discussed.

0425 **clin res**

Improved Regulatory Capacities After Successful Treatment of PTSD

Friedhelm Lamprecht, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine; Martin Sack, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine; Wolfgang Lempa, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine

We assessed the effects of psychotherapeutic treatment on psychophysiological hyperarousal and self-regulation during confrontation with a traumatic reminder in 15 subjects with PTSD before, shortly after EMDR-treatment and at 6-month follow-up. All subjects underwent a psychphysiological evaluation with a modified traumascript paradigm including assessment of script-provoked heart rate changes and heart rate variability. Respiratory sinus arrhythmia (RSA) as the component of heart rate variability closely related to vagal tone was derived from the time-series of inter-beat intervals via polynomial band-pass filtering (Porges 1992). Psychometric instruments (IES, PDS, SUD-Scale) were used to assess treatment outcome. We found a significant overall reduction in psychometric measures of PTSD-symptomatology as well as significantly decreased levels of script provoked HR-acceleration after EMDR-treatment (11.3 ± 10.8 bpm vs. 5.1 ± 5.7 bpm, $p < .03$). As expected, traumascript presentation suppressed RSA-levels reflecting the effect of stress on vagal regulation. In comparison pre- vs. follow-up RSA increased significantly during baseline ($5.06 \pm .98$ vs. 5.86 ± 1.2, $p < .004$) as well as during traumascript (4.55 ± 1.26 vs. 5.55 ± 1.23, $p < .02$). Our findings of higher RSA-levels in combination with reduced HR reactions on a traumatic reminder after successful psychotherapy can be interpreted as a therapy mediated enhancement of biologically determined self regulation capacities.

0426 **clin res**

Relationship Between Trauma Exposure, PTSD, and College Adjustment

Dean Lauterbach, Eastern Michigan University

The literature examining the relationship between trauma exposure, severity of PTSD, and academic performance has produced mixed findings. Early research focused on WW-II combat veterans and found that veterans performed better academically. Studies examining abuse victims have found impaired (Gibby-Smith, 1995) and enhanced (LeBlanc et al., 1996) performance among victims. A resource allocation PTSD model would predict that cognitive resources will become taxed as victims attempt to cope and as a consequence, academic performance would be impaired. This paper extends these earlier findings to a broad sample of college student trauma survivors. The participants were 566 undergraduates (primarily freshmen). They reported experiencing an average of 2.8 traumatic events over their lifetime. Participants completed measures assessing trauma exposure, PTSD symptomatology, dissociation, cognitive functioning, and a questionnaire assessing dimensions of college adjustment. To examine the relationship between PTSD severity and academic performance a 2(sex) X 2(PTSD Diagnosis) was computed. There were main effects for sex and PTSD diagnosis. Women performed better than men. People without PTSD performed better than people with PTSD. Academic performance was unrelated to number of traumatic events experienced, and severity of trauma exposure. Findings from a prospective study will also be presented.

0427 **clin res**

PTSD in Primary Care

Kathryn Magruder, VA Medical Center and Medical University of South Carolina; Bartley Frueh, VA Medical Center and Medical University of South Carolina; Rebecca Knapp, Medical University of South Carolina; Paul Gold, Medical University of South Carolina; Lori Davis, Tuscaloosa and Birmingham VA Medical Centers; Sarah Moss, University of Alabama-Birmingham

As improved treatments for PTSD and other anxiety disorders are becoming accessible to primary care providers, so, too, is the interest in the clinical epidemiology of these disorders in primary care settings. In this cross-sectional study, we present data on approximately 1000 patients attending primary care clinics at four VA hospitals in the Southeast United States. Randomly selected primary care patients were interviewed at the time of their clinic visit using the PTSD Checklist (PCL) and SF-36. Approximately two weeks later they were contacted by phone and administered the Clinician Administered PTSD Scale (CAPS) and modules from the Mini International Neuropsychiatric Interview (MINI) for determining PTSD, affective, and other anxiety disorder diagnoses. In this poster we will present data on the prevalence of PTSD by both the PCL and the CAPS and examine performance characteristics (sensitivity, specificity, PPV, and NPV) of the PCL relative to the CAPS. We will also present data on associated psychiatric comorbidities from the MINI. Preliminary data from two hospitals show that 9.8% of the sample had PCL scores indicative of PTSD and that high scores were associated with younger age and unemployment.

0428 **clin res**

Suicide Among Veterans: Research, Models and Data

Marten Meijer, Veterans Institute, The Netherlands; Jos Weerts, Veterans Institute, The Netherlands

Purpose of this study is to examine research on suicide among veterans of peacekeeping operations. In the last decades suicide among veterans has been studied extensively. After the Vietnam war, many American newspapers wrote about large numbers of suicide among Vietnam veterans. Research on this subject took some years to get started and revealed quite different numbers of suicide. After the Falklands war in 1982, it took twenty years before English newspapers brought the news that the number of suicides among Falklands veterans has exceeded the actual number of British casualties during the Falklands war. We will examine some research about suicides among veterans, propose a model with factors that predict suicide among veterans and discuss some implications of this model for professional help. We will also present some data on suicide among Dutch veterans of peacekeeping operations and make recommendations for further collection of data and research on suicide among these veterans.

0429 **clin res**

Gender and Psychological Trauma Among College Students

Michaela Mendelsohn, University of North Texas; Kenneth Sewell, University of North Texas

This study investigated relationships among sex, sex-role orientation, trauma exposure and psychological help seeking in a college-aged population. Ninety-three males and 179 females were administered the Bem Sex Role Inventory and the Trauma History Questionnaire. They were also asked if they had ever sought psychological treatment related to the experience of a traumatic event. Ninety-four percent of participants reported experiencing at least one traumatic event in their lifetime. There were no sex differences in overall trauma exposure, although there were differences in the proportions of males and females reporting exposure to particular traumatic events. Women reported experiencing their first traumatic event at an earlier age than men. Female participants were more likely to report seeking trauma-related psychological treatment than male participants. Masculine sex-typed individuals, particularly women, reported experiencing a greater number of different traumatic events than did feminine sex-typed, androgynous and undifferentiated participants. Female participants who reported a traumatic childhood had a stronger identification with masculine traits and a weaker identification with feminine traits than those who did not. There was no difference in treatment seeking based on sex-role orientation. Implications for the relationship between gender and the experience of psychological trauma are considered.

0430 **clin res**

Brief Therapy and Long-Term Gains in a Case of Complicated PTSD

Terri Messman-Moore, Miami University; Patricia Resick, Center for Trauma Recovery, University of Missouri-St. Louis

Presentation of the successful treatment of a woman with a history of sexual, physical and psychological abuse in childhood and adulthood, utilizing a relatively brief cognitive-behavioral treatment, Cognitive Processing Therapy (CPT). Treatment addressed numerous problems: PTSD, depression, suicidality, compulsive self-harm behaviors, and primary and secondary dissociative responses. Treatment also addressed related issues of low self-esteem, social isolation, and client's sense of helplessness, which had resulted in failure to implement active self-protection strategies. Therapy was further complicated by ongoing threats to the physical safety of the client by the perpetrator. Client symptomatology was tracked at regular intervals over 34 sessions, for three months post-termination, and at a two-year follow-up. The relatively short course of therapy (22 weeks) and treatment strategies are described, including components of CPT, supportive strategies, and safety planning. Assessment of functioning two years post-treatment included PTSD symptomatology, mood disturbance, self-esteem, adaptive functioning and relapse prevention strategies. Adaptation of the brief treatment to complex symptomatology is discussed at length. Findings indicate that treatment for individuals with extensive victimization histories does not require different strategies or a significantly longer period of treatment than does treatment for those with a single traumatic experience, and that brief intervention can promote long-lasting improvement.

0431 **clin res**

PTSD and Affective Ratings of Evocative Photographs

Mark Miller, National Center for PTSD/Boston University; Jennifer Greif, National Center for Posttraumatic Stress Disorder; Julie Wang, National Center for Posttraumatic Stress Disorder; Jason Hall, National Center for Posttraumatic Stress Disorder; Michael Suvak, National Center for Posttraumatic Stress Disorder; Rebecca Prestel, National Center for Posttraumatic Stress Disorder; Erika Wolf, National Center for Posttraumatic Stress Disorder; Brett Litz, National Center for Posttraumatic Stress Disorder

This study examined the influence of age, trauma exposure, and PTSD on perceptions of emotionally evocative photographic images. 73 adult males between the ages of 30-60 viewed 180 emotionally evocative photographic images and rated their response to each one on the dimensions of valence and arousal. The images varied in terms of their affective properties (i.e., valence and arousal) and content (e.g., combat related vs. non-combat-related). Results showed that patterns of response varied as a function of PTSD diagnosis as indexed by scores on the PTSD Checklist. Individuals with PTSD exhibited maximal negative affectivity ratings for images of lower intensity compared to non-PTSD participants, suggesting a lower threshold for aversive activation. For pleasant images, participants with PTSD were less responsive to images of low to moderate positive affective intensity such as those which evoke feelings of nurturant affection (e.g., cute babies and pets) relative to non-PTSD participants. Vietnam combat veterans with PTSD rated combat-related stimuli more aversively than combat veterans without PTSD. These findings are relevant to our understanding of the emotional processing abnormalities in PTSD and suggest that the disorder may involve alterations in the sensitivities of positive/appetitive and aversive emotional systems.

0432 **Withdrawn**

0433 **clin res**

Attachment and PTSD: Symptom Profiles in Combat Veterans

Ella Nye, Albuquerque Veterans Affairs Medical Center; Jeffrey Katzman, Albuquerque Veterans Affairs Medical Center

The purpose of this study was to 1) describe the distribution of attachment styles among veterans with combat trauma, 2) replicate prior research demonstrating the ability of attachment style to predict PTSD symptom severity in this population, and 3) to examine the feasibility of utilizing an attachment theory model to characterize the diversity of symptomatology within a population of combat veterans with PTSD. Veterans enrolled in the Albuquerque Veterans Affairs Medical Center PTSD/Trauma Clinic, and diagnosed with PTSD secondary to combat trauma, participated in the study. Veterans completed the Combat Exposure Scale, The Trauma Symptom Inventory, the Relationship Questionnaire and the Experiences in Close Relationships Questionnaire. The distribution of attachment styles in this population is described. The ability of attachment style to predict PTSD severity among combat veterans was replicated. Exploratory analyses of the relationship between attachment style and specific TSI subscales are also presented. Conclusions: Attachment style is an important predictor of PTSD severity among veterans with combat trauma. In addition, attachment theory holds promise for increasing understanding of differential symptom presentation among veterans with chronic PTSD.

0434 **clin res**

Coping Self-Efficacy and Cognitive Functioning Following MVA Trauma

Cristin Oue, University of Colorado at Colorado Springs; Charles Benight, University of Colorado at Colorado Springs; Lesley Johnson, University of Colorado at Colorado Springs; Alexandra Harding, University of Colorado at Colorado Springs; Casey Sacks, University of Colorado at Colorado Springs; Tina Markowski, University of Colorado at Colorado Springs; Claire Thomas, University of Colorado at Colorado Springs; Nik Maslow, University of Colorado at Colorado Springs; Erin Lackey, University of Colorado at Colorado Springs; Donna Loy, University of Colorado at Colorado Springs

Perceived capability for managing posttraumatic recovery demands (i.e.,Coping self-Efficacy, CSE), is predictive of posttraumatic symptoms and symptom severity. We examined CSE 4 to 7 days after a motor vehicle accident (MVA) as a predictor of cognitive dysfunction at 1 month and 3 months following an MVA. The interaction of self-evaluative judgments during posttraumatic recovery and difficulties with abstract reasoning provide a possible negative feedback process that exacerbates posttraumatic distress. Fifty-nine individuals (20 males, 39 females) were evaluated who had a mean age of 36.41 years (SD = 14.15) and average FSIQ (M = 107.17; SD = 9.53). Inclusion criteria included: no history of chronic alcohol or substance abuse, posttraumatic amnesia of < 10 minutes, transport to local emergency room post-MVA, and a Glasgow Coma Scale score of > 14. Hierarchical multiple regression analyses found that CSE predicted cognitive dysfunction measured by the Wisconsin Card Sorting Task and verbal fluency when age, IQ and education were controlled. Acute CSE perceptions (4 to 7 days post-MVA) significantly predicted percent perseverative responses (B = .30; R2 delta = .29; p = .03), percent perseverative errors (B = .32; R2 delta = .29; p = .02), and trials to complete (B = -.32; R2 delta = .27; p = .02) in the WCST at 3 months. CSE perceptions at 1 month significantly predicted percent perseverative responses (B = .31; R2 delta = .08; p = .03), percent perseverative errors (B = .36; R2 delta = .11; p = .01) and trials to complete (B = -.42; R2 delta = .15; p = .00) for 3-month WCST. Low CSE perceptions serve as a significant longitudinal predictor of subsequent abstract reasoning capability. Important implications of these findings for adaptive coping following MVA will be discussed.

0435 **clin res**

Relationship Between PTSD Severity and Cognitive Reactions to Trauma

Gina Owens, University of Kentucky; Kathleen Chard, University of Kentucky

The purposes of this study were to gather data on undergraduate and graduate level students' experiences of trauma and their cognitive reactions. In addition, the relationship between cognitive reactions to trauma and severity of posttraumatic stress disorder (PTSD) was examined. Participants were 197 undergraduate and graduate students enrolled in an education course or who responded to posted fliers. Participants completed a demographic sheet and the Cognitive Distortions Scale (CDS; Briere, 2000). Individuals who indicated they had experienced a trauma also completed the PTSD Symptom Scale (Foa, Riggs, Dancu, and Rothbaum, 1993). Fifty-two percent of the sample had not experienced a trauma, while 48% had experienced at least one type of trauma. Results indicated that individuals who had experienced at least one type of trauma significantly differed from those who had not experienced a trauma on cognitions related to self-blame and preoccupation with danger. For individuals who experienced a traumatic event, a multiple hierarchical regression was conducted to determine factors predicting PTSD severity. Number of traumas experienced ($p < .001$), type of trauma (e.g., sexual trauma, physical victimization by another, or accident/natural disaster) ($p < .05$), and the cognitive distortion of preoccupation with danger significantly predicted severity of PTSD ($p < .05$). Findings emphasize the importance of safety distortions in working with survivors of traumatic events.

0436 **clin res**

A 10-Year Evaluation of Interventions to Address Workplace Violence

Angelea Panos, Intermountain Health Care

On September 20, 1991, seventy hospital employees were directly affected by an incident of violence. A gunman planted bombs, murdered a nurse, and held patients and employees hostage for eighteen hours. Qualitative and quantitative follow-up studies of seventy employees over a ten-year period are reported. At six months, 23% met the criteria for the PTSD diagnosis, while an additional 67% of the population reported some symptoms of PTSD. Studies were accomplished at the six-month, one-year, five-year, seven-year, and ten-year time periods. At the ten-year follow-up, 3% met the criteria for the PTSD diagnosis, while an additional 13% had some symptoms of PTSD, although every participant in these categories had post-event exposure to additional traumatic events. The healing process as reported by the victims is described. Participants rated the effectiveness of the interventions offered to them. Support from peers during the two to six-month time period was rated as the most helpful factor. This presentation will examine all interventions offered, and their helpfulness rated by the participants.

0437 **clin res**

Cognitive-Behavioral Treatment as a Prevention for Chronic PTSD

Nenad Paunovic, Traumacenter, Danderyds Hospital

A randomized treatment outcome study with a cognitive-behavioral intervention was conducted with crime victims suffering from acute PTSD. One group received CBT immediately and the other group waited for six months until they received the treatment. The purpose was to see how much the patients that received CBT immediately could improve over and above spontaneous recovery in the wait-list control group. The results showed that CBT was effective in preventing chronic PTSD in the present acutely traumatized group. Furthermore, associated psychopathology was also significantly improved including anxious symptomatology, depression and social adaptation.

0438 **clin res**

Psychopathy, Personality and PTSD in Combat Veterans

Rebecca Prestel, National Center for PTSD, Boston VAMC; Jason Hall, National Center for PTSD, Boston VAMC; Jennifer Greif, National Center for PTSD, Boston VAMC; Mark Miller, National Center for PTSD, Boston VAMC; Catherine Kutter, National Center for PTSD, Boston VAMC

Research on criminal offenders has identified two separate dimensions of psychopathic behavior: emotional detachment and impulsive/aggressive behavior. In this study we examined the association between each of these dimensions, PTSD symptomatology, and personality traits in combat veterans. We predicted an association between the impulsive/aggressive dimension of psychopathy and measures of overall PTSD, and a more specific relationship between emotional detachment and emotional numbing symptoms. 79 combat veterans (37 with PTSD), completed the Levenson Self-Report Psychopathy Scale (LSRP), the PTSD Checklist, and the Multidimensional Personality Questionnaire (MPQ). Results showed that PTSD was positively correlated with LSRP items assessing impulsivity/aggression but not with items assessing emotional detachment. Veterans who scored high on impulsivity/aggression produced low scores on Harm Avoidance and high scores on the Negative Emotionality scales of the MPQ. These findings suggest an overlap between aspects of the behavioral expression of PTSD in combat veterans and the impulsivity/aggression dimension of psychopathy. Implications for our understanding of the high rates of comorbid PTSD and Antisocial Personality Disorder in combat veterans and for future research on the assessment of psychopathy in veteran samples will be discussed.

0439 **clin res**

MMPI-2 Trauma Profile Validation in a Dutch Combat-Related PTSD Sample

Arthur Rademaker, Central Military Hospital; Miranda Meijer, Central Military Hospital; Eleonore Ploeg van der, Utrecht University; Eric Vermetten, University Medical Center/Central Military Hospital; Ferdi Unck, Central Miltary Hospital

Several researchers have investigated MMPI-2 scores across PTSD samples. The present study focused on MMPI-2 scores in a Dutch combat-related PTSD sample. One hundred nine cases were selected retrospectively from test-files of soldiers that served in UN-peacekeeping missions and were referred to the Dutch Central Military Hospital for treatment. Assignment to either the PTSD (n=79) or non-PTSD (n=30) group was based on scores on the Dutch PTSD-scale (ZIL). METHOD: Multi- and univariate analyses were conducted to compare MMPI-2 scores of 1) PTSD vs. non-PTSD groups 2) Lebanon vs. former Yugoslavia veterans. Frequencies of 2- and 3-point code-types were investigated. RESULTS: Significant differences were found between non-PTSD and PTSD sample with a mean 278 3-point profile for the latter. Scale 2 occurred as the most frequent highpoint. MANOVA comparing Lebanon vs. former Yugoslavia groups across MMPI-2 scales was non-significant. CONCLUSION: The mean profile(s) for PTSD groups resembled those found in Vietnam-veteran samples although differences occurred. Elevations tended to be less high across all scales and scale 8 especially; suggesting that symptoms like re-experiencing and dissociation were less predominant. Negative symptoms as measured by scale 2 and 4 were relatively more indicative of PTSD in the current sample.

0440 **clin res**

Specialized Programs for Combat Veterans: Who Improves?

Moira Ripley, Antioch New England Graduate School; Candice Monson, Dartmouth Medical School; Benjamin Rodriguez, Brown University School of Medicine; Jennifer Price, Dartmouth Medical School/National Center for PTSD; Reid Warner, Dartmouth College

For many veterans, traumatic military experiences create a complex picture of PTSD that becomes chronic and treatment-resistant, resulting in significant psychological and psychosocial impairment. Specialized PTSD treatment remains a priority within the VA; however, results from effectiveness studies have been generally disappointing. This has led some researchers and clinicians to recommend a shift in treatment focus from intense trauma exploration to skills-focused, problem solving approaches, and to demand better criteria for selecting patients for trauma focused treatments. Thus, the purpose of this study was to examine how pre-treatment variables might predict differential response to type of treatment (i.e., intense vs. moderate trauma-focused, vs. skills-focused). We examine treatment response in 149 combat veterans, who completed one of three VA-based PTSD programs, differing in length, setting, and/or treatment focus. Standardized assessments were conducted at intake, discharge, and four months post treatment. Preliminary analyses show significant differences in outcome measures of PTSD symptoms, violence, and drug and alcohol abuse, related to treatment focus. Two pretreatment variables (combat exposure and participation in atrocities) were identified as significantly predictive of outcome, depending on treatment focus. Results are discussed in terms of their theoretical and clinical implications. Recommendations are made for program changes and patient-treatment matching.

0441 **clin res**

The Contribution of CSA and Family Environment to Adult Symptomatology

Ana Rodriguez, Nova Southeastern University; Lisa Gore, Nova Southeastern University; Alfred Sellers, Nova Southeastern University; Steven Gold, Nova Southeastern University

This study examined childhood sexual abuse (CSA), family environment and their contribution to adult psychological symptomatology. Eighty-six women ranging in age from 18 to 63 participated. The women completed the Symptom Checklist 90—Revised (SCL-90 R), a psychological symptom self-report scale, the Exposure to Abusive and Supportive Environments—Parenting Inventory (EASE-PI), a self-report measure of abusive and supportive parenting behaviors, and a structured clinical interview which included questions about sex abuse characteristics. We combined the twelve mother and father variables from the EASE-PI into six parenting independent variables (IVs). Four measures of sexual abuse severity also served as IVs. These were then used in a stepwise regression procedure to select those that uniquely explain the variance of the SCL-90-R's Global Symptom Index (GSI). The final model, which included sexual abuse accompanied by physical abuse and the EASE-PI's Emotional Abuse scale, achieved an R of .37 ($p < .01$). The results further revealed that the two IVs were nearly equivalent in explaining unique variance components of GSI, and that GSI was negatively correlated with physical abuse accompanying sexual abuse ($r = -.29$, $p < .01$), and positively correlated with emotional abuse ($r = .27$, $p < .01$).

0442 **clin res**

Risk Factors for the Development Versus Maintenance of PTSD

Paula Schnurr, National Center for PTSD and Dartmouth Medical School; Carole Lunney, National Center for PTSD; Anjana Sengupta, National Center for PTSD and Dartmouth Medical School

PTSD can be a chronic mental illness. However, we know little about what factors are associated with the development of PTSD, as compared with the maintenance of PTSD. This study addressed the issue by using data from the National Vietnam Veterans Readjustment Study and the Hawaiian Vietnam Veterans Project, which was modeled on the NVVRS. Participants were Vietnam veterans: 78 women and 429 men (96 Whites, 66 Blacks, 82 Hispanics, 90 Native Hawaiians, and 95 Japanese Americans). A continuation ratio logistic regression model was used for univariate analyses predicting PTSD outcome from premilitary, military, and postmilitary risk factors. To identify risk factors for the development of PTSD, veterans who never had PTSD were compared with veterans who had lifetime PTSD. To identify risk factors for the maintenance of PTSD, veterans who had PTSD in the past were compared with veterans who had current PTSD. We also tested whether the effects of risk factors on these two outcomes differed. Almost all variables were related to the development of PTSD. Different risk and pro-

tective factors emerged for the maintenance of PTSD. Multivariate analyses identified different models for the development versus maintenance of PTSD. Practical and theoretical implications will be presented.

0443 **clin res**

Posttraumatic Meaning-Making: Toward a Clearer Definition

Yonit Schorr, University of Massachusetts Boston; Lizabeth Roemer, University of Massachusetts Boston

The experience of trauma often leaves people with a sense of meaninglessness in the world. Many researchers have suggested that an important component of the healing process includes restoring a sense of meaning to one's life. Davis (2000) suggests that people find meaning in two distinct and independent ways: making sense of their experience and perceiving benefit in the aftermath. Tedeschi and Calhoun (1995) have referred to experiencing benefits after trauma as Posttraumatic Growth. This study seeks to better understand the relationship between these forms of meaning making and their relation to specific traumas and their outcomes. Two hundred participants from an urban commuter campus completed a series of questionnaires that included the Traumatic Events Questionnaire (Vrana and Lauterbach, 1994), the PTSD Checklist (Weathers et al., 1993), the Posttraumatic Growth Inventory (Tedeschi and Calhoun, 1996), and a rationally-derived measure of sense-making. Analyses explore the relationship between these two types of meaning-making and PTSD symptoms, as well as differences in meaning making across trauma types and chronicity. Both research and clinical implications of the results will be discussed.

0444 **clin res**

Integrative Diagnostic Schema and Indication for Trauma-Treatment

Annemarie Smith, Centrum '45; Alan Ralston, Psychiatric Hospital Duin en Bosch; Wim Kleijn, Centrum '45, Leiden University

First results are presented of empirical validation of the Integrative Diagnostic Schema and Indication for Trauma-treatment (IDSIT). IDSIT was developed to structure the process of diagnosis and treatment-planning and treatment-evaluation for patients with chronic and/or complex Posttraumatic Stress Disorder (PTSD). The three elements of IDSIT are the DSM-IV diagnosis, a developmental schema and a dynamic schema for coping with PTSD. IDSIT was scored independently by three experienced clinicians for 34 patients that consecutively took part in the observational phase of the day-treatment. The sources of IDSIT scores were clinical reports of observations by different therapists and in different treatment modes. IDSIT proved to be helpful as a clinical instrument in the discussion on treatment-planning. Interrater reliability for DSM-axis I diagnosis and the occurrence of important life events was moderate to good, for the coping schema moderate to poor. The results on interrater-reliability on the coping schema point to the necessity of more precise description of the concepts used, and of training of the raters. Nevertheless IDSIT seems to offer a clinically useful and promising schema for further development as a diagnostic and evaluative tool in the treatment of patients with PTSD.

0445 **clin res**

Transmitting Trauma in Addicted Families: A Longitudinal Perspective

Nancy Smyth, University at Buffalo School of Social Work; Brenda Miller, University at Buffalo School of Social Work; Gene Maguin, University at Buffalo School of Social Work; Shelly Wiechelt, University at Buffalo School of Social Work; Carolyn Hilarski, Rochester Institute of Technology

Mothers and one randomly chosen child (ages 10-16) (n= 358 pairs) were recruited from alcoholism treatment centers and the community. Families were interviewed twice, six months apart, in an effort to identify mechanisms responsible for the intergenerational transmission of addiction and trauma. Children's trauma symptoms were assessed by Briere's Trauma Symptom Checklist. Mothers' current alcohol and other drug involvement (AODI) was assessed through a composite of DSM symptoms and quantity/frequency. Three types of mothers' trauma symptoms (last 30 days) were measured: SCID PTSD symptom count, Structured Interview for Disorders of Extreme Stress (SIDES-complex trauma), and dissociation (Dissociative Experiences Scale; DES). Protectiveness was assessed by children's reports of maternal monitoring. Mothers' Time 1 AODI and trauma symptoms were significantly correlated. Regression analyses indicated that Mothers' Time 1 AODI and trauma symptoms (PTSD, SIDES, DES) did not predict Child Time 2 trauma symptoms. However, all of Mothers' Time 1 symptoms (AODI, trauma) predicted inadequate monitoring of children, which, in turn, predicted Child's trauma symptoms at Time 2. Findings suggest that simply treating trauma and addiction will not interrupt the intergenerational cycle; parenting skills, especially parental monitoring, should also be addressed. [Note: final poster will utilize structural equation modeling]

0446 **clin res**

Expectations of Survivors of Human Rights Violations in South Africa

Jeffrey Sonis, University of North Carolina at Chapel Hill; Nicolette Jones, University of Michigan; Megan McMillen, University of Michigan; Ellen Moodie, University of Michigan; Semira Ansari, University of Michigan; Monica Patterson, University of Michigan; Wendy Orr, University of Witwatersrand

The purpose of this study was to identify the factors that predicted the expectations of survivors of human rights violations in South Africa who testified in public hearings of the Truth and Reconciliation Commission (TRC). We selected a random sample of 390 (of approximately 1,800) testimony transcripts. Each transcript was analyzed independently by two raters using an instrument developed for this study. Logistic regression was used to identify the best subset of predictors of survivor expectations. The most common requests were monetary reparations or funds for education or health care (40%), information about the victimization, such as how a family member was killed (16%), and punishment or apology of the perpetrators (9%). In the logistic model, three factors were directly associated with requests for monetary reparations or funds (versus all other requests): physical injury from the victimization; African ethnicity; and testifying about one's own victimization (versus a family member's). Discussion of reconciliation or justice at the hearing was inversely associated with requests for monetary reparations or funds. Survivor expectations were influenced by their backgrounds, their victimization experiences and their interactions with the TRC. The needs of survivors are not uniform.

0447 **clin res**

I Will Dance Again: Resilience in Survivors of Limb Loss

Beth Sperber Richie, Private Practice; Angela Ferguson, Consultant; Zahabia Adamaly, Landmine Survivors Network Research Associate; Dalia El-Khoury, Landmine Survivors Network Research Assistant; Maria Gomez, Consultant

Coping strategies and resilience characteristics of survivors of limb loss in the U.S. and 6 landmine affected countries were determined using qualitative methods. Sample consisted of 55 participants. Data was gathered by interviewing 55 participants using a semi-structured protocol in the U.S. and an open-ended format in the 6 landmine affected countries. Of the 55 participants, 38 were limb loss survivors, 10 were survivors' family members, and 7 were service providers. Data analysis used grounded theory analytic strategies (Glaser and Strauss, 1967; Strauss and Corbin, 1990) to determine country specific and universal factors which lead to resilience. A six-factor model of resilience in survivors of limb loss emerged from the participants' stories. The six factors which promote or detract from an individual's recovery from trauma are: Self, Family, Social Support, Professional Treatment, Personal Context, and Society. This presentation will describe the overall model, detail its six factors using concrete examples, and highlight similarities and differences across all countries. Comprehensive and coordinated rehabilitation

programs for survivors of limb loss needs to be comprehensive and address the person's physical and psychological needs, and social needs within the context of family, community, country, and socio-cultural environment at large.

0448 **clin res**

Provider Quality of Life: Telehealth Intervention to Prevent Secondary Trauma

B. Hudnall-Stamm, Institute of Rural Health, Idaho State University; Stephen Weeg, Institute of Rural Health, Idaho State University; Barbara Cunningham, Institute of Rural Health, Idaho State University; Kelly Davis, Institute of Rural Health, Idaho State University

Workers worldwide faces healthcare workforce challenges with severe workforce shortages, geography and climate, inadequate infrastructure, and isolation, which induce negative consequences such as burnout and vicarious trauma leading to high turnover and increased medical error. Telehealth Idaho uses telehealth as an intervention to reduce these risks. This poster reports on Phase 1, a two-year process to create a program centered on the provider. Data are drawn from public and private provider meetings, focus groups, key informant interviews, and proposed projects. Results were consistent; professionals feel cut off from the resources to adequately provide care within the standards of practice. They report difficulty obtaining consultations, educational opportunities, and peer networking, and coverage for personal and professional leave. They also report an interest in and willingness to use technology to combat isolation and improve quality of care and professional quality of life, coupled with lack of knowledge of how to use or fund technology. The culmination of Phase 1 was the selection, through a competitive process, of 30 community partners who will be linked with four university departmental partners (Pharmacy, Clinical Psychology, Medical Library, and Dental Residency) through the Telehealth Idaho system. Preliminary quantitative results of Phase 2 will also be presented.

0449 **clin res**

Unique Effects of PTSD and Social Support on Quality of Life

Jennifer Strauss, Duke University/Durham VA Medical Centers; Patrick Calhoun, Durham VAMC/Duke/Durham VA Medical Centers; Michelle Feldman, Durham VAMC; Jean Beckham, Duke/Durham VA Medical Centers

This study examined the unique association of PTSD symptom severity and quality of life (QOL) after accounting for common co-morbid factors known to negatively impact QOL. This study also examined whether social support buffers the negative relation between PTSD and QOL. Data were collected on a sample of male veterans (N = 218) diagnosed with PTSD at a VAMC specialty clinic. Hierarchical regression analyses were computed to (1) examine the relation between PTSD severity and QOL, controlling for demographic factors and co-morbid major depression, substance abuse, and medical conditions; and (2) examine whether perceived social support moderates the relation between PTSD and QOL. PTSD was associated with decreased QOL, Beta = -.04, $p < .001$, accounting for 10% of outcome variance after controlling for demographic and co-morbid factors. Increased medical morbidity, Beta = -.21, $p = .006$, and age, Beta = .04, $p = .03$, also were significantly associated with QOL. Social support did not moderate the relation between PTSD severity and QOL. Results provide further evidence that PTSD severity is negatively and uniquely associated with quality of life. The failure of social support to buffer this relationship is surprising and merits further study.

0450 **clin res**

Childhood Sexual Abuse History and Shame as Predictors of Dissociation

Jean Talbot, Department of Psychiatry, University of Rochester School of Medicine; Nancy Talbot, Department of Psychiatry, University of Rochester School of Medicine

This study examined linkages among childhood sexual abuse history (CSA), shame-proneness, and dissociation. Research indicates that CSA predicts heightened dissociative tendencies. Emotion theorists argue that shame-proneness may also be implicated in the genesis of dissociation: Shame-prone individuals may often resort to dissociation to escape the global, aversive self-state that shame represents. These considerations have prompted some researchers to propose a model whereby CSA is linked to dissociation partly through its connection to shame. CSA is seen as fostering shame-proneness, which in turn promotes the use of dissociation. This study tested the hypotheses that CSA and shame-proneness would each predict dissociation, and that shame-proneness would mediate the effect of CSA history on dissociation. Participants were 99 women hospitalized in a psychiatric inpatient unit or partial hospital. Forty-six reported CSA. Measures included the Life Experiences Scale, a shame-proneness measure derived from the Differential Emotions Scale-IV, and the Dissociative Experiences Scale. Preliminary multiple regressions indicated that after controlling for effects of non-CSA trauma, CSA and shame-proneness each made significant, independent contributions (9% and 17% respectively) to the variance in dissociation. Shame-proneness did not mediate CSA's impact on dissociation. Implications of findings for treatment and for understanding CSA's links to dissociation are discussed.

0451 **clin res**

Stress, Coping Self-Efficacy and Coping in Motor Vehicle Accidents

Claire Thomas, University of Colorado at Colorado Springs; Charles Benight, University of Colorado at Colorado Springs; Tina Markowski, University of Colorado at Colorado Springs; Lesley Johnson, University of Colorado at Colorado Springs; Casey Sacks, University of Colorado at Colorado Springs; Chrissy Oue, University of Colorado at Colorado Springs; Alex Harding, University of Colorado at Colorado Springs; Nik Maslow, University of Colorado at Colorado Springs; Cherice Wells, University of Colorado at Colorado Springs

This study examined the mediational relationship between acute distress levels and coping self-efficacy (CSE) in predicting 1 month coping behaviors for motor vehicle accident (MVA) victims. Participants (N = 68) completed the Impact of Event Scale-Revised (IES-R) and MVACSE inventory 4-7 days after their accident. One month later, participants completed the COPE inventory, assessing 15 different coping behavior subscales that are grouped into problem- and emotion-focused coping behaviors. Mean CSE scores and IES-R scores, respectively, were entered into two hierarchical multiple regressions. CSE was entered first into the mediational model followed by IES scores. Results supported a mediational model for acute distress levels mediating between acute CSE perceptions and problem-focused coping 1 month later. The relationship between CSE and problem-focused coping became insignificant when IES-R scores were entered into the equation. CSE perceptions were not significantly correlated with emotion-focused coping, thus making a mediational examination impossible. Individual subscales for the COPE will be examined in-depth to provide a richer evaluation of the relationships between acute distress, CSE and coping behaviors. Additionally, CSE appraisals at 1 month will be examined in order to investigate the importance of self-evaluative judgments assessed at the same point in time for understanding coping behaviors

0452 **clin res**

Coping Style and Functioning of Veterans with PTSD

Quyen Tiet, VAPA HCS/Stanford University.; Craig Rosen, VA National Center for PTSD; Mark Greenbaum, VA VISN 21 Mental Illness Research Education and Clincal Center; Helen Chow, VA VISN 21 Mental Illness Research Education and Clincal Center; Jerome Yesavage, VA VISN 21 Mental Illness Research Edcation and Clinical Center and Stanford University

The chronic disease model of PTSD patient care strives to enhance patients' functioning despite persisting psychiatric symptoms. This study examined the relationship between coping style and functioning in veterans diagnosed with PTSD. One-quarter of all PTSD patients receiving services in three VA health care systems during a one-month period were randomly selected (n = 522) for a study of patients' functioning. A total of 254 patients (49%) completed mailed surveys including the Impact of Events Scale-Revised, Symptom Checklist-6 (depressive and anxiety symptoms), Coping Responses Inventory, alcohol and drug composites of the Addiction Severity Index, and an aggregate measure of social/role functioning based on items from the SF-12V and the Health and Daily Living Questionnaire. Positive Coping was associated with higher levels of functioning whereas Acting Out Coping was related to lower levels of functioning, even after controlling for the effects of psychiatric symptoms and substance use. Adaptive coping styles may enable PTSD patients to get along with family and friends and function adequately despite continuing psychiatric symptoms and some substance use. Further longitudinal studies are necessary to examine the directionality of the relationship of coping styles and functioning in PTSD patients.

0453 **clin res**

Early Maladaptive Schemas, Trauma and PTSD Among Substance Abusers

Elisa Triffleman, The Public Health Institute; Celeste Monnette, The Public Health Institute

Dysfunctional cognitions are believed to be common among those with trauma exposure and PTSD. This study examined the association of the Young's Early Maladaptive Schema questionnaire (YSI, short form-version) with childhood sexual abuse, having witnessed or experienced violence during childhood, and PTSD among substance abusers. YSI subscales were identified a priori as being most likely to be associated with sexual abuse or PTSD. Subjects were applicants for a treatment trial of subjects with PTSD-substance abuse. Inclusion criteria was ability to read English at >5th grade level and a Mini-mental State Exam >26. Results: The 87 subjects were 52% female; 47% African-American, 11.5% Latino; 73% unemployed. No associations were observed between YSI results, and either self-report substance abuse indices or urine toxicology screens. On MANOVA, associations were observed between a history of childhood sexual abuse (with or without subsequent adult rape) and YSI total and several subscale scores. Among subjects who had witnessed or experienced violence, after excluding those who experienced childhood sexual abuse, increased total YSI scores and YSI subscales were observed as was also true among those with current PTSD on the CAPs. In a logistic regression model, both childhood sexual abuse and total YSI scores predicted current PTSD diagnosis. Conclusion: The YSI appears to measure schemas without regards to substance-related effects. Whether the association between the YSI and PTSD represents trait vs. state effects requires further study.

0454 **clin res**

Depression/PTSD: Paxil Affects Autonomic Reactivity and Cortisol

Phebe Tucker, Department of Psychiatry, University of Oklahoma; Katherine Beebe, GlaxoSmithKline, Clinical Research and Development; Akm Hossain, Department of Psychiatry, University of Oklahoma; Richard Trautman, Department of Psychiatry, University of Oklahoma; Dorothy Wyatt, Department of Psychiatry, University of Oklahoma

Purpose: Effects of paroxetine treatment of depression with PTSD on subjective symptoms, physiological reactivity and diurnal cortisol secretion were assessed. Methods: Baseline assessments compared 22 patients with depression + PTSD, 22 with depression alone, and 20 controls with prior trauma but no mental illness. Psychometric measures included the SCID-IV for Axis I diagnoses; CAPS, IES and TOP8 for PTSD; and BDI for depression. Autonomic measures assessed heart rate and blood pressure responses (Lablink Modular Instrument System) to individualized trauma scripts. Salivary cortisol was measured at 8 am and 4 pm. Bonferroni-corrected T-tests compared groups. Findings: Patients with depression + PTSD had higher baseline autonomic reactivity than depressed and traumatized control subjects on all measures. Discriminant analyses found combined autonomic variables to correctly classify 86% of depressed + PTSD patients (sensitivity) and 95% of subjects without PTSD (specificity). The depression + PTSD group's cortisols differed from the other two groups only in having a flattened diurnal pattern. The depression + PTSD group recieved 10 weeks of open-label paroxetine, 20-50mg/day, with all psychometric and physiological reactivity measures decreasing significantly. Treated patients acquired a robust diurnal pattern of cortisol secretion. Conclusions: The presence of PTSD with depression caused greater autonomic reactivity and different patterns of diurnal cortisol secretion compared with depression alone and with previous trauma experience without illness. Physiological and neuroendocrine measures as well as subjective symptoms normalized with paroxetine treatment of depression with PTSD, underscoring the biological nature of comorbid PTSD and its treatments.

0455 **clin res**

Injury Severity and PTSD: A Pilot Study with a Multicultural Sample

David Victorson, University of Miami; Kent Burnett, University of Miami; Rebecca Delgado, University of Miami; Kristen Bauer, University of Miami; Kelly Travis, University of Miami; Karen Macaluso, University of Miami; Marielena Palomino, University of Miami; Victoria Hernandez, University of Miami; Lorie Farmer, University of Miami; Destiny St. John, University of Miami

Injury severity, as a predictor of post-injury psychiatric development, has received scrutiny within the traumatic injury literature. Some studies have reported a predictive relationship between injury severity and posttraumatic stress (See Blanchard, Hickling, Mitnick, Taylor, Loos, and Buckley, 1995) while others have not (See Bryant and Harvey, 1995). An investigation was undertaken to examine the relationship between injury severity and PTSD symptomatology among a multicultural sample of fifty-two traumatically injured adults (19% African American, 19% Caucasian, 8% Caribbean, 48% Hispanic/Latino, 6% other). Patients were recruited from the orthopedic hand, trauma and burn units at a large, southeastern level 1 trauma center. During the first days of hospitalization, patients were administered the Trauma Symptom Checklist-40 (TSC-40) by trained assessors and were also assigned an Abbreviated Injury Scale Score (AIS) by attending surgeons. All participants signed an informed consent form and the confidential nature of the study was discussed. A simple regression analysis revealed that AIS scores could not significantly predict TSC-40 total scores ($p>0.05$). Given the conflicting position of injury severity within the traumatic injury literature, as well as the pilot nature of this current study, continued effort should be made to examine this relationship among traumatically injured populations.

0456 **clin res**

PTSD, Substance Abuse, Health Status and Utilization in HIV+ Adults

Melanie Vielhauer, Boston Medical Center, VA Boston Healthcare System; Deborah Brief, VA Boston Healthcare System, Boston University School of Medicine; Andreas Bollinger, VA Boston Healthcare System, Boston University School of Medicine; Carlos Cuevas, Boston Medical Center; Erin Morgan, Boston Medical Center; Lisa Buondonno, Boston Medical Center; Terence Keane, Boston Univerity School of Medicine, VA Boston Healthcare System

Recent research has documented high rates of substance abuse and psychiatric problems in the HIV population, as well as their adverse impact on adherence to medication regimens, health outcomes, and use of health care services. Of these studies, only a small number have investigated trauma exposure and PTSD, with results indicating higher prevalence rates of PTSD than in the general population. To date, there has also been limited empirical work evaluating the relationship between trauma, PTSD, and health status in people living with HIV. The current study examines these relationships in HIV-infected adults with substance abuse disorders who were recruited at an urban medical center as part of a larger, ongoing study of HIV/AIDS treatment adherence, health outcomes, and health care costs. Trauma exposure and PTSD symptoms were assessed with the Life Events Checklist and the Clinician-administered PTSD Scale. Health status was assessed with the SF-36 and portions of a semi-structured interview focused on HIV medication adherence and use of medical and mental health services. Data will be presented on health status as a function of PTSD severity, severity of substance abuse, HIV clinical stage, and comorbid health problems.

0457 **clin res**

A Two Dimensional Model of Combat-Related PTSD

Karla Voncken, Central Military Hospital, Utrecht, The Netherlands; Eric Vermetten, University Medical Center; Ferdy Unck, Central Military Hospital; Rolf Kleber, Utrecht University

Background: Some studies suggest that distinguishing between the responses of denial and re-experiencing is an alternative and potentially more useful approach for understanding posttraumatic stress disorder (PTSD) and its origin in war trauma than the comprehensive model proposed in DSM-IV. No conclusive evidence has been found however to support these notions. Objective: We wanted to assess whether the dimensionality of both denial and re-experiencing could be confirmed in an outpatient population of combat-related PTSD. Method: We used several questionnaires (MMPI, BDHI and ZIL) to retrospectively assess the existence of this dimension in Dutch Veterans with combat- related PTSD (n=40). Results: Dimensionality of denial and re-experiencing could not be confirmed. Our results are suggestive of a differentiation in two other categories: personality characteristics and symptom profiles. The longer the duration of PTSD symptoms, the more they have an impact on personality characteristics. Conclusion: There is no supportive evidence for understanding PTSD along a dimensionality model of denial and re-experiencing. Our data suggest personality characteristics and symptoms profiles to be more valid categories, which add their relative weight in function of the duration of PTSD symptoms.

0458 **clin res**

Vicarious Traumatization of Therapists: Risk and Resiliency Factors

Laura Wagner-Moore, University of Massachusetts Boston; Ester Shapiro, University of Massachusetts Boston

The primary objective of this research was to identify risk and resiliency factors for vicarious traumatization (VT) A sample of trauma therapists were administered measures of VT, psychological distress, and measures of personality and coping style. Hierarchical multiple regression were used to test whether certain aspects of therapists' exposure to patient traumatic material, as well as internal (e.g., aspects unique to the therapist) and external factors (e.g., amount of professional support or supervision) of the therapist were predictive of VT. This study failed to find a statistically significant relationship between a) the severity and degree of therapist exposure to patient traumatic material and VT and b) the therapist's history of abuse and the development of VT. An unexpected finding was that participants who reported greater amounts of supervision and professional support tended to report higher levels of VT. A statistically significant relationship was found between a) avoidant coping styles and VT and b) personality factors such as neuroticism, agreeableness, affect regulation style, boundary style and VT. The findings suggest a) that the current VT empirical literature's emphasis on factors external to the therapist need to be reconsidered, b) that inter-individual therapist personality characteristics may play an important role in the differential response to trauma work and c) that more complex theoretical models are needed to accurately understand the processes which mitigate risk or promote resiliency in VT.

0459 **withdrawn**

0460 **clin res**

The Frequency and Impact of Trauma in Older Adult Females

Robyn Walser, Mental Illness Research, Education and Clinical Center, VAPACS; Joan Cook, University of Pennsylvania and Philadelphia VA Medical Center; Josef Ruzek, National Center for PTSD; Javaid Sheikh, VAPAHCS and Stanford University

Research on the frequency and impact of trauma in younger female veterans exists; however, there is little information about the prevalence, impact, and characteristics of military trauma in older adult female veterans. For instance, exposure to military trauma, including but not limited to sexual assault, physical sexual harassment, and verbal sexual harassment, in younger female veterans is common and has many harmful consequences. However, we currently know little about the consequences of trauma in older women. The purpose of the current study was to assess trauma, physical functioning, and coping styles in older women in order to better understand the relationship among these variables. Women in the military and non-military women were investigated. To date, data have been collected on 43 subjects, average age = 79.26. A description of trauma history as detailed by the Trauma History Questionnaire is presented. Preliminary data analyses indicate low to moderate levels of PTSD symptoms for 12 subjects as measured by the PCL. There were no significant differences on PCL scores between military and non-military subjects. PCL scores were unrelated to number of doctor visits in the past year for the group of subjects as a whole, however, for non-military subjects there was a significant positive relationship between PCL scores and number of doctor visits in the past year. Furthermore, PCL scores were significantly positively related to disengagement (non-emotion focused) as a coping strategy for military subjects, whereas the same was not true for non-military subjects. The relationships among trauma history, current physical functioning and coping style in older women are discussed. Implications for future research and treatment issues are addressed.

0461 **clin res**

The Role of Relationship Functioning in Treatment Outcomes for PTSD

Reid Warner, Dartmouth College; Candice Monson, Dartmouth College; Benjamin Rodriguez II, Brown University Medical School; Moira Ripley, Antioch New England Graduate School

Minimal research has addressed the effectiveness of various treatments for combat-related PTSD, or how certain variables influence treatment effectiveness. Moreover, there has been little research on how psychosocial variables, and specifically relationship functioning, might relate to these outcomes. The goals of this study were to investigate these psychosocial variables as they related to the effectiveness of intensive group treatment in a VA-based PTSD program. Using data from 150 veterans who received PTSD treatment, analyses indicated that pre-treatment perceptions of the stability and functional support of extended relationships, and the level of intimacy in their significant

relationships, were not associated with four-month treatment outcomes. However, perceptions of the stability and functional support of intimate relationships at admission were significantly related to violence perpetration at four-months, with more favorable perceptions leading to decreased post-treatment violence perpetration. There was also an interaction between type of treatment (i.e. trauma versus skills focused) and this relationship variable. Interestingly, more favorable perceptions led to decreased violence for patients receiving skills focused treatment, and increased violence for patients receiving trauma-focused treatment. Results are discussed as they relate to future treatment implications and how and when trauma survivor's intimate partners might be integrated into treatment to improve outcomes.

0462 **clin res**

Predicting ECT Response Using the Dexamethasone Suppression Test

Bradley Watts, Dartmouth Medical School Department of Psychiatry; Christian Meko, Dartmouth Medical School

While it appears clear that there is no role for the dexamethasone suppression test in determining which patients with major depression will benefit from ECT, to our knowledge there have been no investigations into whether the dexamethasone suppression test (DST) can be utilized to predict which patients with both depression and posttraumatic stress disorder (PTSD) would benefit from ECT. A chart review was conducted to compare treatment response of patients meeting DSM IV criteria for both depression and PTSD who received ECT. The patients were grouped based upon response to the dexamethasone suppression test: non-suppressers (N=5), normal response (N=11), and hyper-suppressers (N=10). Using a response definition of a 50% reduction in symptoms and a final Montgomery Asberg Depression Rating Scale score of ten or less, the non-suppressers all responded to ECT. Five of the eleven normal DST responders responded to ECT. None of the DST hyper-suppressers responded to ECT. These findings indicate the dexamethasone suppression test may play a role in identifying which patients with depression and PTSD will respond to ECT.

0463 **clin res**

Gender Differences in Trauma and Cohesion among Military Personnel

Julia Whealin, National Center for PTSD, Pacific Islands Divison; Wayne Batzer, Tripler Army Medical Hospital; Matthew Friedman, National Center for PTSD, Executive Division; Paula Schnurr, National Center for PTSD, Executive Division; Noela Yamamoto, National Center for PTSD, Pacific Islands Divison; Stacey Yim, National Center for PTSD, Pacific Islands Division; Charles Morgan, Yale University/Va National Center for PTSD

Cohesion is a vital component in maintaining morale among military personnel. Research indicates that the extent to which soldiers feel a part of a group and desire to remain in the group predicts superior performance. Recent investigations suggest trauma may interfere with one's ability to function as part of a cohesive group. Childhood abuse, for example, predicted poorer perception of peers and leaders among 1,051 male and 305 female soldiers (Rosen and Martin, 1996). The objective of the present research was to examine the impact of trauma history upon cohesion among active duty personnel. The WRAIR Cohesion Scale and the Brief Trauma Questionnaire were administered to 127 female and 170 male soldiers participating in a 2-week training deployment. Results showed that warzone, accident, disaster, and illness trauma were more frequently endorsed by men than women; whereas child abuse, sexual assault, and witnessing trauma were more frequently reported among women. Regression analyses indicated that, among men, disaster trauma related to poorer perception of peers, NCO's, and officers, while "other trauma" was related to poorer perception of officers. Among women, only "other trauma" was related to poorer perception of peers. The mediational role of gender upon trauma sequelae is discussed.

0464 **clin res**

Quality of Life as a Function of Social Avoidance in PTSD Veterans

Erika Wolf, National Center for Posttraumatic Stress Disorder, VA Boston Healthcare System; Barbara Niles, National Center for Posttraumatic Stress Disorder, VA Boston Healthcare System

The purpose of this investigation was to determine the relationship between self-reported social avoidance, trauma avoidance and quality of life in Veterans who suffer from re-experiencing symptoms associated with Posttraumatic Stress Disorder (PTSD). It was hypothesized that 1) low social avoidance would predict better quality of life, 2) high trauma avoidance would predict better quality of life, and 3) the interaction of low social avoidance and high trauma avoidance would predict better quality of life. Re-experiencing symptoms, social avoidance, and trauma avoidance were measured with relevant items from the PTSD Checklist. Quality of Life was measured with the Boston Life Satisfaction Inventory. Participants included 163 male Veterans (mean age = 53, 51% White, 10% Black, 46% Vietnam-era, 98% met DSM-IV criteria for PTSD) who underwent evaluation for PTSD. Regression analyses revealed that low social avoidance was related to better quality of life (beta = -.53, adjusted r2 = .28, p <.001), supporting the first hypothesis. The importance of staying connected to one's social network was further supported by subsequent analyses. Neither trauma avoidance nor the interaction variable was a significant predictor of quality of life. Key findings will be discussed in relationship to the coping and social support literature.

Posters in Track 6

Complex Trauma and Interpersonal Violence (complex)

Presented: **Saturday, 1:00 p.m.–2:15 p.m.**

Poster Numbers 0601–0646

0601 **complex**

Disclosing the Unspeakable: Intergenerational Dilemmas

Mary Armsworth, University of Houston; Karin Stronck, Loyola University, Chicago

Self-disclosure and its impact on healthy interpersonal relationships and self-development has been recognized for decades. Revealing one's self to another facilitates development of intimate, fulfilling relationships to mitigate isolation, disconnections, and loneliness. Jourard's work, however, points to the dilemma frequently voiced by survivors of atrocity or abuse related to the difficulty of disclosing their histories to their own children. "Distress disclosures" of negative or difficult situations have been found to carry costs, such as rejection, loss of social support, self-alienation, and loss of speaking one's own reality. The current study sought to understand issues related to disclosing a history of abuse to one's own children. 42 women who had self-reported histories of incest completed a semi-structured interview on parenting issues, with the focus for this report on disclosure or non-disclosure of the mother's incest history, reasons the mother chose to disclose or not, and how the child responded. Interviews were transcribed and data were subjected to qualitative and descriptive analysis. Results indicated that all aspects of the process of disclosure were complex, with nearly equal frequencies of positive (e.g., empathy, relief, understanding) and negative responses (anger, fear, distress, confusion, distancing). Suggestions for generational interventions and further research are presented.

0602 **complex**

Marital Rape: Single Case Design of Two Cognitive Behavioral Therapies

Jennifer Bennice, Center for Trauma Recovery, University of Missouri-St. Louis; Patricia Resick, Center for Trauma Recovery, University of Missouri-St. Louis

Fourteen percent of married women and nearly 50% of battered women have experienced marital rape. Extant research has described the posttrauma consequences of marital rape, including posttraumatic stress disorder (PTSD), depression, fear, helplessness, negative attitudes toward men, self-blame, guilt, and shame. In addition, empirical studies have found that the majority of marital rape victims report being raped more than once, and multiple experiences of marital rape seem to lead to more serious consequences for the victims. Despite these findings, marital rape has not been taken as seriously as other forms of rape. As a result, research that might help to improve services to marital rape victims has been impeded. Although it seems likely that effective therapies for rape victims would also be helpful to victims of marital rape, the effectiveness of such techniques must be formally evaluated in this population. The present study will begin this process by completing single case analyses of two marital rape victims who were treated with either Cognitive Processing Therapy or Prolonged Exposure. Each case will be evaluated on measures of PTSD, depression, and trauma-related guilt at pre-treatment, post-treatment, 3-month, 9-month, 2-year, and 5-year follow-up assessments. These findings will be discussed along with their potential clinical implications.

0603 **complex**

Trauma Art: A Nonverbal Technique to Reduce PTSD Symptoms

Lyndra Bills, Community Works Inc.

Trauma art is a nonverbal cognitive exposure technique used in practice to reduce PTSD symptoms. It has been applied to both simple and complex PTSD from many different types of trauma including physical and sexual abuse, medical procedural trauma, burn trauma, traumatic brain injury, motor vehicle accidents, emotional abuse, domestic violence, traumatic grief, etc. Trauma art was developed as a method to help patients process painful reexperiencing images or sensations difficult to describe verbally. It is based upon the neurobiology of trauma theory, which describes our brains ability to be overstimulated by a traumatic event and process information more nonverbally. The trauma art technique uses five basic steps: safety before, safety after, transition point before, transition point after, and the traumatic event. The technique will be described with its five basic steps along with pertinent clinical examples.

0604 **complex**

Prevalence of Sexual Assault Among Active Duty Air Force Women

Deborah Bostock, Uniformed Services University of Health Sciences; James Daley, Indiana School of Social Work, Indiana University

Sexual assault in the military is a highly sensitive, volatile issue with scant data as to the extent or outcome of the event(s). This study was conducted to quantify sexual assault rates within the Air Force and to provide a direct comparison to the available civilian data. A random probability sample of active duty Air Force (ADAF) women were interviewed in a structured telephone survey using the previously validated National Women's Survey (NWS) instrument. The participation rate for the survey was 77.1% with 2018 completed interviews. Lifetime prevalence data related to sexual assault and associated health outcomes (posttraumatic stress disorder (PTSD), depression and suicide) were evaluated. We found that the lifetime prevalence of rape among ADAF women is more than twice as high as that of civilian women as reported in the NSW (28% vs. 13%). More than half of the women who have been victims of rape have been raped more than once. Most rapes involved attacks by civilians on Air Force women when they were also civilians. There are statistically significant differences in the associated outcomes of PTSD, depression and suicide between ADAF women who have sexually assaulted and those without such experience(s).

0605 **complex**

Group CBT for Treatment of Aggression Among Veterans with PTSD

Patrick Calhoun, Duke University Medical Center, Durham VA Medical Center; Timothy Wampler, Durham VA Medical Center; Strauss Jennifer, Duke University Medical Center; Jean Beckham, Duke University Medical Center, Durham VA Medical Center; Rhonda Karg, Durham VA Medical Center; Taft Casey, Durham VA Medical Center

Interpersonal violence and aggression are prominent concerns for many veterans with PTSD. The aims of the current project were to examine the feasibility and validity of a newly developed 12-week group cognitive-behavioral intervention for treatment of anger and aggression among veterans with PTSD. Vietnam veterans (n=19) with severe anger problems were randomly assigned to one of two treatment conditions. A 12-week group cognitive-behavioral therapy targeted at aggressive behavior (CBT-A) was compared to a cognitive-behavioral intervention focused on anxiety management. The primary outcome variable, interpersonal violence, was assessed pre-post and 3-months following treatment using the Conflict Tactics Scale (CTS). All 11 patients (100%) assigned to CBT-A completed the intervention. Five of eight patients (63%) completed the comparison intervention. Results examining treatment completers revealed no significant group differences pre, post or three months following treatment. Both groups demonstrated trends toward reduced aggression at 3 months follow-up, however, only patients assigned to anger management demonstrated significant decreases in both verbally aggressive ($t=5.3$, $p<.001$) and physically violent behavior ($t=2.7$, $p=.02$). Group cognitive-behavioral therapy for treatment of aggression is feasible in a population of veterans with severe PTSD. Following 12-week cognitive behavioral treatment, Vietnam veterans with PTSD demonstrated a significant reduction in interpersonal violence and verbally abusive behavior.

0606 **complex**

Is Memory a Prerequisite to PTSD? The Case of Traumatic Head Injury

Yael Caspi, Division of Psychiatry, Rambam Medical Center and Rappaprt Faculty of Medicine; Sharon Gil, Division of Psychiatry, Rambam Medical Center and Rappaprt Faculty of Medicine; Irit Zilberman Ben-Ari, Division of Psychiatry, Rambam Medical Center and Rappaprt Faculty of Medicine; Danny Koren, Department of Psychology, University of Haifa; Ehud Klein, Division of Psychiatry, Rambam Medical Center and Rappaprt Faculty of Medicine

Studies of the relationship between memory of the traumatic event and Posttraumatic Stress Disorder (PTSD) are inconclusive. The goal of this study was to examine the role of memory for the details of the traumatic event in the development of PTSD. Data on traumatic experiences, past and current SCID-based DSM-IV psychiatric disorders, symptoms of PTSD, depression, and dissociation, and neurocognitive indices were collected in a retrospective study of 120 participants who experienced traumatic events involving head injury. Out of the 48 participants with memory for the traumatic event, 16 (33%) developed PTSD, whereas only 6 (8%) developed PTSD out of the 72 participants without memory ($c2=24.2$; $p<.001$). Logistic regression analysis revealed that, accounting for age, symptoms of anxiety and depression in the week preceding the study, and cognitive functions—memory for the traumatic event was highly and positively associated with the diagnosis of PTSD (OR=2.8, CI=1.8, 8.9). However, of the 22 (18%) participants diagnosed with PTSD, six (27%) had no memory of the event. Confirming previous reports, our study substantiates that memory for the traumatic event is a strong predictor of PTSD. However, lack of memory does not completely preclude the possibility of its occurrence.

0607 **complex**

Factor Analysis of the Sexual Abuse Questionnaire-III

Bryan Castelda, Binghamton University; Adam Krantweiss, Binghamton University; Patricia Rourke, Binghamton University; Donald Levis, Binghamton University

The present study is part of an ongoing series of research projects to assess a newly constructed brief paper-and-pencil self-report instrument, the Sexual Abuse Questionnaire—III (SAQ-III). This questionnaire is unique in that many of the discriminating items on the inventory were derived from extensive clinical experience, as opposed to solely relying on clinical symptomatology, in treating survivors of childhood sexual abuse. The items have also been proven capable in discriminating between males and females. Previous versions of the Sexual Abuse Questionnaire (SAQ-II) have been shown to classify self-reported survivors of sexual abuse from self-reported non-abused subjects, and have demonstrated good test-retest reliability and internal consistency as well as convergent and discriminant validity (Locke, 1997). The focus of the present study was to obtain further estimates of internal reliability and to determine the factor structure of the SAQ-III using exploratory factor analysis. To avoid spurious factors that sometimes result when factor analyzing dichotomous data, a G-coefficient was used. Internal reliability, as indexed by the Kuder-Richardson formula for dichotomous data was found to be .96. Split-half reliability was found to be .93. Two factors were extracted using Maximum Likelihood extraction with orthogonal varimax rotation. The first factor, labeled abuse, accounts for 30.99% of the variance. The second factor, labeled anxiety/depression, accounts for 15.04% of the variance.

0608 **complex**

Health Care Utilization Associated with PTSD and Personality Disorder

Serena Chu, Mental Illness Research, Education and Clinical Centers; Nancy Dunn, Houston Veterans Affairs Medical Center; Joseph Hamilton, Houston Veterans Affairs Medical Center; Lynn Rehm, University of Houston; Julianne Souchek, Houston VA Center for Quality of Care and and Utilization Studies; Jeanne Schillaci, Palo Alto National Center for PTSD; Elisia Yanasak, University of Houston; Terri Menke, Houston VA Center for Quality of Care and Utilization Studies

In a VA HSR&D funded study, health care utilization among veterans with comorbid PTSD, depression and at least one personality disorder was examined. This area of research is particularly valuable given the complexity of treating three very prevalent, chronic, and complex psychiatric conditions that may have synergistic effects on each other with regard to treatment outcome. Participants included 115 male combat veterans recruited from a VA medical center. The Clinician-Administered PTSD Scale (CAPS-1) and SCID-I and II were administered to diagnose PTSD, depression, and personality disorders, respectively. The mean CAPS-1 score was 74.6 (SD=16.8), which is indicative of severe PTSD symptomatology. Approximately 45.2% of this sample had one or more personality disorders. Health care utilization data were extracted from a computerized database of all clinical visits. Findings indicate that patients with comorbid PTSD/depression, and a personality disorder were more likely to utilize inpatient psychiatric services than patients with PTSD/depression and no personality disorder. However, there were no differences between the two groups with respect to utilization of medical services and outpatient psychiatric services. Overall, veterans with a diagnosis of PTSD, depression, and at least one personality disorder are higher utilizers of inpatient psychiatric services than similar patients without a personality disorder.

0609 **complex**

Characteristics of Complex Trauma with Child Abuse Samples

Anne Dietrich, University of British Columbia

The construct of Complex PTSD includes symptoms of PTSD, affect dysregulation, dissociation, alterations in self capacities, altered relationships with others, somatization, and altered systems of meaning. Data are presented on these characteristics of traumatized individuals with self-reported childhood maltreatment histories. Over 200 participants were recruited from prisons (n = 108), the internet (n = 90), and a community outpatient centre (n = 20). Participants completed the Child Maltreatment Interview Schedule to assess for types of childhood maltreatment, the Detailed Assessment of Posttraumatic States (DAPS) to assess for PTSD symptoms, and the Self-Inventory of Disorders of Extreme Stress (SIDES-SR), the Inventory of Altered Self Capacities (IASC), the Multiscale Dissociation Inventory (MDI), and the Somatoform Dissociation Questionnaire (SDQ-20) to assess for complex posttraumatic sequelae. Psychometric data on these various instruments are presented, as well as descriptive data on characteristics of complex PTSD for these samples. Participants are compared to available normative samples on each of these measures. In addition, statistical methods were utilized to determine if the IASC, MDI, and the SDQ-20 tap into domains over and above the construct of Complex PTSD as explicated by the SIDES-SR. Results are discussed in terms of validity of the Complex PTSD construct.

0610 **2001 Student Research Award Winner Research Update**

Posttraumatic Sequelae as Potential Mediators Between Childhood Abuse and Revictimization

Anne Dietrich, University of British Columbia

Researchers have studied a range of post-traumatic correlates of revictimization of adults with abuse histories, including characteristics of the original abuse, PTSD, and various features of Complex PTSD or Disorders of Extreme Stress Not Otherwise Specified (DESNOS). These data suggest PTSD and Complex PTSD/DESNOS may play mediating roles between childhood abuse and revictimization. In the current study, PTSD (as per the Detailed Assessment of Posttraumatic States or DAPS), DESNOS (as per the Self-Inventory for Disorders of Extreme Stress, or SIDES-SR), cognitive distortions (as per The Cognitive Distortions Scale or CDS), dissociation (as per the Multiscale Dissociation Inventory or MDI), impaired self-capacities (as per the Inventory of Altered Self Capacities or IASC), and somatoform dissociation(as per the Somatoform Dissociation Questionnaire or SDQ-20) were examined as potential mediators between childhood abuse and revictimization. Two hundred and sixteen subjects with self-reported abuse histories were recruited from a community counselling centre, correctional facilities, and email discussion lists. Logistic regression analyses were conducted using Barron and Kenny's guidelines for testing for mediation effects. The results are discussed in terms of treatment of specific posttraumatic sequelae with a view to preventing revictimization, as well as implications for future treatment outcome research.

0611 **complex**

Victimization, Psychopathy and Comorbidity in Juvenile Sex Offenders

David Eakin, Auburn University; Ohiana Torrealday, Auburn University; Barry Burkhart, Auburn University

The spectrum of pathology arising from childhood traumatization is complex and often misunderstood. These victims suffer maladaptive attachments, disrupted identity formation, and personality disorders that may increase risk for repeated future victimization by or of others. This preliminary investigation compared victimization patterns, psychopathy, and comorbidity in juvenile sex offenders who were victims of sexual abuse (n=16), physical abuse (n=19), or both (n=12), with those of sexual offenders without any history of interpersonal traumatization (n=50). Sex offenders who were victims of either sexual or physical abuse committed their offenses against younger, predominantly female victims; committed offenses that were more intrusive; victimized family members; and committed offenses at an earlier age than those who had no history of abuse. Offenders with a history of both types of abuse victimized equal numbers of males and females. Those with no abuse history were more likely to victimize non-family members. Juveniles incarcerated for non-sexual offenses scored significantly higher on a psychopathy measure, while sex offenders with a history of physical abuse scored higher than individuals with a history of sexual abuse or both types of

abuse. There was substantial diagnostic comorbidity among offenders, with abused individuals reporting greater levels of psychopathology within several diagnostic categories.

0612 **complex**

Peritraumatic vs. Trait Dissociation and Risk for PTSD

Catherine Ehrlich, Los Angeles County and University of Southern California Medical Center; John Briere, University of Southern California Keck School of Medicine; Frank Weathers, Auburn University

Several studies suggest that peritraumatic dissociation is a risk factor for PTSD. The purpose of this study was to further investigate the relationship between generalized (or trait) dissociation, peritraumatic dissociation, and PTSD. We hypothesized that, in contrast to previous findings, the general trait of dissociation would better predict PTSD. The project involved two studies. In Study 1, 52 community participants and mental health outpatients were administered the Peritraumatic Dissociative Experiences Questionnaire (PDEQ), the Dissociative Experiences Scale (DES), and the Clinician-Administered PTSD Scale (CAPS). In Study 2, 387 general population participants were administered the Detailed Assessment of Posttraumatic Stress (DAPS) and the Multiscale Dissociation Inventory (MDI). In both studies, both trait and peritraumatic dissociation emerged as predictors of PTSD diagnoses in univariate analyses, but on the multivariate/discriminant level, while trait dissociation continued to be a meaningful discriminator of PTSD, peritraumatic dissociation was no longer related. As hypothesized, it appears that the general trait of dissociation predicts PTSD, and does so better than peritraumatic dissociation—results which were replicated in two different populations using different sets of diagnostic instruments. We suggest that the relationship between peritraumatic dissociation and PTSD may be primarily the activation during a trauma of preexisting dissociative capacities.

0613 **complex**

The Current State of Assessment and Treatment of Complex PTSD

Charles Figley, Florida State University (FSU)—FSU Traumatology Institute

The discovery, assessment, and treatment of complex trauma has a short history. This poster will review this history and discuss the importance of personality and the subconscious in traumatology generally. The majority of time, however, will be devoted to discussing an important innovation in the assessment and treatment of Complex Trauma: The use of the Intrapsychic Treatment Team metaphor.

0614 **complex**

Complex Psychiatric Disorders in Rwandan Post-Genocide Orphanages

Richard Gakuba, Medical student

Following the 1994 Rwandan genocide, there has been an enormous increase in the number of orphaned children in the country. Some among these have had the opportunity of being adopted into families or orphanages while many others still roam the streets. There is no doubt some of them suffer a complexity of psychiatric disorders. OBJECTIVES of the study were; to determine the prevalence of PTSD among orphans living in different orphanages in Kigali, to identify other complex psychiatric disorders and make recommendations towards management of the complex psychiatric disorders. A total of 280 orphans aged 10-18 years from seven orphanages in Kigali city were assessed for different psychiatric disorders using a clinical interview; a combination of the Distressing Event Questionnaire and Traumatic Event Questionnaire. RESULTS showed 151(54%) children had PTSD and 182(65%) had at least one psychiatric disorder. The prevalence of PTSD and different other psychiatric disorders varied depending on age at time of trauma event (Genocide) and sex with 60% females. Due to the high prevalence of a complexity of psychiatric disorders, counseling services should be reinforced in orphanages. Street children should be adopted into families and orphanages for proper assessment and management of psychiatric disorders.

0615 **complex**

Complex Trauma in Refugees: Establishing a Conceptual Framework

Sonali Gupta, Cambridge Hospital/Harvard Medical School

As a group, refugees and displaced persons have undergone multiple and severe traumatic experiences including war, torture, and ethnic cleansing. In addition to and compounding the impact of the original trauma(s), the refugee endures the stressors of forced migration and the challenge of acculturating to the host country. As a consequence of their complex trauma history, refugees often present with a spectrum of symptoms (e.g., depression, prolonged dysphoria, anxiety, panic, somatic complaints) that may not fit the diagnostic requirements for or are not adequately represented by a specific disorder as defined by DSM-IV. This presentation describes a conceptual framework which incorporates a multifactorial and multidimensional approach to understanding the dynamic between the refugee's traumatic experiences and symptom formation and presentation. The proposed framework merges an understanding of the refugee's premorbid functioning, the social, political, and individual contexts in which the trauma occurred, the beliefs and meanings the individual has ascribed to the traumatic events, and the impact of migration, culture, and acculturation. Finally, the manner in which this conceptual framework can guide therapeutic intervention will be discussed in the context of working with refugees from Lebanon and Togo.

0616 **withdrawn**

0617 **complex**

Working with Survivors of Torture During the Asylum Process

Karen Hanscom, Advocates for Survivors of Torture and Trauma; Mary Cogar, Advocates for Survivors of Torture and Trauma; Estela Abosch, Advocates for Survivors of Torture and Trauma; Susan Eroraha, Advocates for Survivors of Torture and Trauma

Working with survivors of torture who are seeking asylum offers unique opportunities for mental health interventions. Focus of the presentation will be on psychological assessment and treatment during preparation for asylum proceedings. Specific topics will include diagnostic assessment, education of the attorney and court regarding the psychological consequences of torture, and influence of cross-cultural issues. Psychotherapeutic interventions throughout the process are illustrated and explored.

0618 **complex**

The Actual Condition and Issue of Domestic Violence Victims in Japan

Takako Konishi, Musashino Women's University, Faculty of Human Studies

Recently, several official researches described the high prevalence rate of Domestic Violence (DV) in Japan. Considerable number of researches has been done on the actual number and the demographic features of women's DV victims. Only a few, however, have focused on the minute profile of the actual circumstance and the mental difficulties and damage of DV victims, nor on the systematic support system. We have conducted an interview research with 53 women of DV victims in 11 major cities of Japan since Feburuary to March, 2001. All women were assessed their DV experience and associated psychological change with a semi-structured interview. They were also asked what kind of resource they used. This is the first nation-wide study ever conducted in Japan on the actual profile, background and the clinical course of the DV victims as well as their support system. It is hoped to embody the augmented social concern with the evidence so as to improve the actual support and care of the DV victims and establish the more effective social sys-

tem for the prevention and continuing care of the DV damage. Cultural-bound aspects of the coping style and the survival strategy of the Japanese victims will be also dicussed.

0619 **complex**

Gender Roles, Stereotypes and Self-Discrepancies in Response to Abuse

Elizabeth Krause, Duke University, Department of Psychology; Susan Roth, Duke University, Department of Psychology

Recent studies have found a history of child abuse to be associated with identity disruption, negative self-representations, and discrepant models of self. One aspect of self-concept that may be affected by abuse and associated with vulnerability to posttraumatic stress for female survivors is gender identity. Case studies have suggested that treatment-seeking female survivors often endorse stereotyped beliefs about women, describe feeling disconnected from other women, and/or over-identify with many of the negative attributes associated with femininity. In addition, survivors often report painful discrepancies between their posttraumatic self-concept as a woman and the woman they would ideally be or believe they ought to be (Krause et al., 2002). The current study examines quantitatively the impact of child abuse on survivors' gender role identification, self-discrepancies, and stereotyped beliefs about women. In addition, it investigates the impact of these variables on symptomatology. Fifty women with and 35 women without a history of childhood physical or sexual abuse completed self-report measures. Compared to women without a history of abuse, abuse survivors reported possessing more attributes stereotypically associated with femininity than masculinity. In addition, group differences in the correlations between self-discrepancies and gender role attributes suggested that self-ideals may be associated with femininity for the abuse group but masculinity for the control group. A significant relationship between the actual-ideal discrepancy and symptomatology however, did not depend on abuse history or level of gender role identification. Finally, although the two groups did not differ in terms of overall gender stereotype endorsement, the extent to which abuse survivors endorsed negative stereotypes about women was associated with posttraumatic stress symptomatology.

0620 **complex**

Creating Safe Places: Assessing the Needs of Haitian Abuse Survivors

Rachel Latta, Boston College; Lisa Goodman, Boston College

This qualitative study evaluated 1) the extent to which existing domestic violence services in an urban city were culturally competent, particularly with respect to Haitian culture 2) the extent to which Haitian immigrant women had access to existing services, and 3) the types of services that would work best for these women. Qualitative interviews were conducted with three groups: domestic violence service providers; service providers that did not focus on domestic violence exclusively, but did provide some domestic violence-related services; and English-speaking Haitian agencies and Haitian community leaders that did not have any services related to domestic violence. Data were coded following a grounded theory approach, using a constant comparative method of data analysis. Findings show that most traditional domestic violence services are meeting, if not, exceeding standard cultural competency requirements. Secondary services do not appear to be meeting cultural competency requirements. Cultural, legal, and knowledge-based barriers to access still exist for Haitian women. Literacy and community outreach are two important services that should be expanded for Haitian women. Also, training through religious organizations in the community may be an effective way to increase access. Finally, an increase in funding and services specifically for Haitian women is needed.

0621 **Withdrawn**

0622 **complex**

Surviving Discotheque Fire Disaster—a 24-Year Follow Up

Tom Lundin, Deptartment of Psychiatry, Uppsala University Hospital

In June 1978 a disastrous fire broke out in a restaurant and discotheque of Borås city hotel. Twenty young people were immediately killed and 140 survived with more or less somatic injuries. This survivors where followed up in a two year study with questionnaires and personal interviews. It is now possible by help of registers to identify those survivors, now at 40–45 years of age, who are still alive. In May 2002 each survivor will be followed up by help of questionnaires and self rating scales such as GHQ-28, IES-r and personality inventories. This study will cover areas such as post traumatic psychiatric morbidity, aspects of quality of life and social adjustment. We will also include data obtained from official registrers concerning sicklisting, hospital care an so on. Data will be presented concerning the first studies in 1980 and the 24 year follow up.

0623 **Withdrawn**

0624 **complex**

Intrafamilial Adversity and Psychopathology in a Community Youth Sample

Christian Menard, Johns Hopkins Bloomberg School of Public Health

The present study identifies patterns of intrafamilial risk and protective factors that predict lifetime psychopathology. Risk factors pertain to maltreatment, parental loss, and parents' psychopathology. Protective factors pertain to warm, consistent and responsible parenting. Outcomes include depression, GAD, ASPD, SUD and suicidality. Data were collected from a community sample of youth with balanced demographic representation. Data were collected annually during elementary school and when respondents were 20. Latent class analysis is used to empirically identify classes of respondents with similar histories with respect to inter-related intrafamilial exposures. Preliminary findings support a four class model. Sixty four percent of respondents belong class one and have low probabilities of endorsing all items except divorce. Nineteen percent belong to class two and have moderate probabilities of endorsing all items. Fifteen percent belong to class three and have elevated probabilities for physical and emotional maltreatment only. Two percent belong to class four and have exceptionally high probabilities for all items. Class two, three and four are associated with increased odds of psychopathology relative to class one. Odds ratios for class four exceed ten. The findings indicate that exposures that surround an index exposure strongly affect the risk of lifetime psychopathology.

0625 **complex**

A Trauma-Based Treatment Intervention for Domestic Violence Victims

Amanda Midboe, University of Pittsburgh; Charles Benight, University of Colorado, Colorado Springs; Alexandra Harding, University of Colorado; Sachie Iwaishi, University of Colorado; Lesley Johnson, University of Colorado

Twenty-four participants from a local domestic violence center were self-selected into an individual therapy-plus-standard advocacy group (P/SA) or a standard advocacy (SA) group. The center's advocacy staffed administered treatment for the SA group and the P/SA group. In addition to the SA treatment received by individuals in the P/SA group, there were also six licensed therapists who provided a manualized treatment incorporating CBT and EMDR. Symptoms of PTSD, depression, CSE, self-esteem, and coping skills were assessed. Additionally, saliva sample measurements were taken to examine the effect of treatment on the regulation of salivary cortisol. Results indicate that participants in the P/SA treatment condition experienced a significantly greater reduction in intrusive symptomatology and overall level of PTSD symptom severity, as well as a greater increase in CSE over time

than those individuals in the SA condition. Moreover, changes in CSE were related to changes in psychological symptoms in individuals in the P/SA group from pretreatment to posttreatment and at follow-up. Almost no linear relationship between changes in CSE and other psychological variables in the SA group emerged. A minimal impact of treatment on coping skills was observed. There was a move towards a greater regulation of salivary cortisol at posttreatment in the P/SA group.

0626 **complex**

Manualized Treatments for Women with Addictions and Complex PTSD

Gloria Miele, St. Luke's Roosevelt Hospital Center/Columbia University P&S; Lisa Litt, Women's Health Project, St. Luke's Roosevelt Hospital Center; Denise Hien, St. Luke's Roosevelt Hospital Center/Columbia University School of Social Work

Prevalence estimates suggest that as many as 80% of women seeking treatment for chemical dependency report lifetime histories of sexual and/or physical assault. Rates of PTSD, which often include the signs and symptoms of complex PTSD, are as high as 44% to 59% in addiction settings. Further, rates of comorbid PTSD in female substance abusers are two to three times higher than for male substance abusers. Clearly there is a need to address issues of trauma in the treatment of substance abusers, particularly women. Seeking Safety (SS) is a short-term, manualized treatment specifically designed to integrate the treatment of both PTSD and substance abuse. This presentation will focus on issues related to utilizing the SS intervention in an outpatient treatment program for women with addictions who also have complex PTSD and related co-morbid disorders. We will address the benefits and challenges implicit in the "technology transfer" of this manualized treatment in our community treatment program. Utilizing clinical examples, we will illustrate how variables such as other co-morbid diagnoses, treatment modality, treatment intensity and compliance impact the effectiveness of this program for women with addictions and complex PTSD.

0627 **complex**

PTSD as a Barrier to Health Care Among Battered Women

Megan Murphy, Georgetown University Medical Center, Department of Psychiatry; Mary Ann Dutton, Georgetown University Medical Center, Department of Psychiatry; Lisa Goodman, Boston College, Lynch Graduate School of Education; Rachel Somberg, Georgetown University Medical Center, Department of Psychiatry

Recent literature has suggested that culture plays an important role when examining health care and intimate partner violence. PTSD has been found to have important consequences for health care and health behaviors. Battered women (n = 405) recruited from metropolitan courts and shelter participated in this longitudinal study. Levels of PTSD were assessed using the PCL-S. A Likert-type scale was developed to assess obstacles to disclosure in a health care setting. Overall, 64% of the sample that had been previously screened for abuse by a health care provider indicated that they disclosed it. Obstacles to disclosure most frequently rated as "high" were: 1) "Felt too embarrassed" (37.3%), 2)"Didn't want to get upset"(32.9 %), 3)"Thought it was private" (32.5 %), 4) "Don't think there is anything they could do to help" (28.2 %), and 5) "Afraid someone would call the police" (27.4%). Further, PTSD predicted disclosure ($B = -1.05$, $p < .05$); women with PTSD are nearly 3 times (OR = 2.9) more likely NOT to tell their health care provider about abuse, even after controlling for level of violence. Contrary to previous research, participants race and ethnicity did not significantly predict if they chose to disclose to a health care provider after being screened. However, African-American battered women endorsed "privacy" as a reason not to disclose more often than did white women ($F = 4.85$, $df = 1, 256$, $p < .05$).

0628 **complex**

Adult Assault and Alcohol Problems: Examining the Association

Madhabika Nayak, Public Health Institute Alcohol Research Group; Thomas Greenfield, Public Health Institute Alcohol Research Group

Research has consistently demonstrated an association between victimization by violence and problematic alcohol use. However, much of this research has focused on childhood victimization or on sexual abuse, is often been limited to women, and does not include detailed examination of patterns and consequences of drinking. Assessment of alcohol use that does not include such details can underestimate problematic alcohol use. We will present data from the 1990 US National Alcohol Survey, a general probability in-person household survey (N=2058), that included both adult men and women. One in five (20.4%) men and women reported a criminal assault in adulthood. Specifically, 419 individuals reported experiencing an adult physical or sexual assault or an injury due to interpersonal violence. Examination of associations among assault and alcohol variables indicated that individuals who had experienced a recent (past year) assault were most likely to report heavy episodic drinking, greater volume of consumption, frequent intoxication, alcohol dependence, and several negative consequences of alcohol use in the past year. We will also present findings from analyses examining the impact of recency of the assault, victim drinking during the most recent assault, and ethnicity on alcohol use and problems in models estimated separately for men and women.

0629 **complex**

Revictimization and Self-Harm in Females who Experienced Sexual Abuse

Jennie Noll, University of Southern California and The Catholic University of America; Lisa Horowitz, Lab School of Washington; Penelope Trickett, University of Southern California, School of Social Work; Frank Putnam, Cincinnati Children's Hospital Medical Center

Lifetime trauma histories were ascertained for females with confirmed histories of childhood sexual abuse and comparison females participating in a longitudinal, prospective study. Child sexual abuse was defined as sexual contact involving breasts or genitals between a child under 14 years of age and a family member (i.e., parent, stepparent, mother's live-in boyfriend, or other relative). Abused subjects reported twice as many subsequent rapes or sexual assaults ($p=.07$), 1.6 times as many physical affronts including domestic violence ($p=.01$), almost four times as many incidences of self inflicted harm ($p=.002$), and over twenty percent more subsequent significant lifetime traumas ($p=.05$) than did comparison subjects. Sexual revictimization was positively correlated with PTSD symptoms, peritraumatic dissociation, and sexual preoccupation. Physical revictimization was positively correlated with PTSD symptoms, pathological dissociation, and sexually permissive attitudes. Self harm was positively correlated with both peritraumatic and pathological dissociation. When other self-reported maltreatment types were examined, emotional abuse was the only significant predictor of rape or sexual assault, neglect and dissociation were significant predictors of physical victimization or domestic violence, sexual abuse and dissociation were significant predictors of self-harm, and physical abuse and neglect were significant predictors of the number of significant lifetime traumas.

0630 **complex**

Traumatic Experiences, Personality, Coping, and Maladaptive Schemas

Maureen O'Connell, Southern Illinois University; Rebekah Bradley, Southern Illinois University; Angela Heiligenthal, Southern Illinois University

The range of responses to traumatic experiences is broad and can include long term, maladaptive patterns including symptoms consistent with DSM-IV personality disorders. Although the mechanism for this connection is not clear, trauma may lead to the development of maladaptive schemas in childhood which may be related to later development of maladaptive coping

which may manifest in more extreme forms in Axis II disorders. However, the relationship among these variables is unclear. The purpose of this research is to investigate the relationship among these variables. The current study presents results of a self-report study conducted with a sample of 231 undergraduates (39% males and 61% females, 80% Caucasian and 17% African American) at a mid-size Midwestern University. Participants were given the Wisconsin Personality Disorders Inventory-IV, the Life Stressors Checklist, COPE, and Schema Questionnaire. There were significant associations between symptoms of personality disorders and past traumatic events (e.g., avoidant personality style with childhood neglect, and borderline personality style with emotional abuse/neglect and childhood sexual abuse). There were also significant relationships between trauma experience and reported maladaptive schemas and dysfunctional coping patterns. The role of these variables in moderating the relationship between traumatic experiences and disordered personality will be discussed.

0631 **complex**

Cigarette Use Among Female Sexual Assault Victims

Alyssa Rheingold, National Crime Victims Research and Treatment Center, Medical University of South Carolina; Heidi Resnick, National Crime Victims Research and Treatment Center, Medical University of South Carolina; Ron Acierno, National Crime Victims Research and Treatment Center, Medical University of South Carolina; Robin Minhinnett, National Crime Victims Research and Treatment Center, Medical University of South Carolina; Dean Kilpatrick, National Crime Victims Research and Treatment Center, Medical University of South Carolina

Research indicates a positive relationship between trauma, PTSD, and smoking behavior. Specifically, several studies have found that interpersonal violence increases the risk of cigarette use. This study examined lifetime and current smoking behaviors in a sample of approximately 150 rape victims. In addition, smoking behaviors were compared in victims who received a brief video-based preventive intervention designed to reduce the risk of developing post-rape psychopathology, with victims who did not receive a video intervention. Specific smoking behaviors were assessed 6 weeks and 6 months post rape. Eighty-six of 141 rape victims (69%) reported lifetime history of smoking. Fifty-six percent of women at 6 weeks post rape reported current cigarette use and 53% of the victims at 6 months post rape reported current cigarette use. Of those rape victims who smoke, 60% reported an increase in smoking since the assault at 6 weeks post rape, and 40% reported an increase in smoking from 6 weeks to 6 months post rape. Preliminary chi-square results indicated that the intervention may have some effects on subsequent smoking behaviors. The implications of the present findings were discussed.

0632 **complex**

Dissociation Decreases Psychophysiological Arousal During Imagery

Martin Sack, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine; James Hopper, The Trauma Center, Brookline, Massachusetts; Lucienne Nickel, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine; Friedhelm Lamprecht, Hannover Medical School, Department of Psychotherapy and Psychosomatic Medicine

Though dissociative reactions have been characterized as involuntary coping mechanisms that protect organisms from overwhelming physical and emotional pain, little empirical work exists on the physiological concomitants of dissociative reactions to traumatic reminders. We hypothesized that dissociation during recall of a traumatic memory would inhibit cardiovascular arousal. 103 consecutive patients of an outpatient trauma clinic were assessed with diagnostic interviews (SCID-PTSD, SCID-D) and psychometrics (PDS, IES, DES, BSI). A sub-sample of 62 underwent additional psychophysiological evaluation with a modified script-driven imagery paradigm including assessment of script-provoked heart rate changes and symptoms of reexperiencing, avoidance, numbing, and dissociation. Subjects with dissociative disorders were over-represented in the sample (56%). Hyperarousal symptom severity during the script correlated positively with HR ($r = .49$, $p < .001$), while dissociative symptoms correlated negatively with HR ($r = -.28$, $p < .029$), and a group comparison (median split) revealed significantly lower HR change from baseline in the dissociation group during the script (6.3 bpm vs. 12.7 bpm, $p < .02$). However, dissociative diagnosis was not associated with less HR reactivity. These results suggest that dissociative reactions to trauma-related reminders diminish cardiovascular arousal, but that such responses are not reliably associated with dissociative diagnosis.

0633 **complex**

PTSD Symptoms and Self-Injurious Behavior in Traumatized Adolescents

Kasey Saltzman, Stanford University Department of Psychiatry; Victoria Tichenor, San Francisco VA Medical Center; Victor Carrion, Stanford University Department of Psychiatry

Significant levels of self-injurious behavior in traumatized adolescent populations have been documented, but few studies have quantitatively documented their prevalence and function or relationship to symptom severity. Using the newly developed Self-Injurious Behavior Scale (SIBS), we assessed self-harm in a sample of adolescents both with and without a history of interpersonal trauma and subsequent Posttraumatic Stress Disorder (PTSD) symptoms. Specifically, the frequency and severity of six prevalent self-injurious behaviors, as well as endorsement of eight proposed motivations (both dissociative and non-dissociative) for such behavior, were examined. Self-injurious behavior rates and patterns were compared between the traumatized and non-traumatized adolescents. Within the traumatized group, scores were examined in the context of PTSD diagnosis, PTSD symptoms, PTSD individual symptom clusters, and the subcluster of emotional numbing. Additionally, self-injurious behavior was correlated with sympathetic (heart rate, respiration rate, blood pressure, and skin conductance) and parasympathetic (cardiac vagal tone) physiological responses to both neutral and non-traumamimetic distressful stimuli. Results and implications are discussed.

0634 **complex**

Adult Attachment, Complex PTSD Symptoms, and Acute Stress Reactions

David Sandberg, California State University; Nicole Corso, California State University; Melissa Johnson, California State University; Jennifer Paraso, California State University; Chris Traylor, California State University; LeeAnn Rush, Santa Clara University

This 6-month, prospective study examined whether adult attachment (Experiences in Close Relationships Inventory; ECRI), PTSD symptoms (Posttraumatic Checklist; PCL-C) and Complex PTSD symptoms (Self-Report Version of the Structured Interview for Disorders of Extreme Stress; SIDES) were predictive of acute stress reactions (SASRQ) among 115 ethnically diverse college women. Multivariate analysis revealed that PTSD symptoms, alterations in attention and consciousness, and attachment avoidance were significantly related to subsequent distress. Results suggest that individuals with posttraumatic symptomatology who have difficulty forming or maintaining close interpersonal relationships may be at increased risk for acute stress reactions when exposed to negative life events.

0635 **complex**

Interpersonal Revictimization and Loss Among Substance Using Women

Jeremiah Schumm, Kent State University; Stevan Hobfoll, Kent State University

Due to the interpersonal nature of childhood abuse (CA), CA was hypothesized to result in interpersonal trauma and losses in adulthood. These were, in turn, hypothesized to result in posttraumatic stress disorder (PTSD). Women were recruited from an inner-city drug and alcohol treatment center (N = 105). Adulthood rape and physical assault mediated the impact of CA on PTSD, and interpersonal losses were independently predictive of PTSD. Findings demonstrate that CA results in specific vulnerabilities in adulthood related to women's interpersonal ties. Results suggest that inter-

ventions for women seeking substance use treatment should include prevention of abuse, treatment for PTSD, and building of interpersonal coping resources.

0636 **complex**

Sexual Harassment, Sexual Assault and the Health of Reservists

Jane Stafford, Women's Health Sciences Division, National Center for PTSD; Ann Hendricks, Center for Health Quality, Outcomes and Economic Research (CHQOER); Tamara Bruce, Women's Health Sciences Division, National Center for PTSD; Clare Mahan, Department of Veterans Affairs Environmental Epidemiology Service; Paula Schnurr, Executive Division, National Center for PTSD; Erica Sharkansky, Women's Health Sciences Division, National Center for PTSD

In recent years, the negative impact of psychological trauma and PTSD on physical health has become increasingly apparent. Along with increases in health problems, victims of trauma have been found to seek more healthcare than non-victims. In the present study we interviewed a National sample of former members of the Reserve Components of Armed forces about their experiences of military sexual trauma (sexual harassment and sexual assault) and about their physical health (N = 4500). This investigation offers a unique opportunity to compare Reservists with a history military sexual trauma to Reservists who do not have such a history on a variety of physical health outcomes and on healthcare utilization. In addition, this talk will examine the relationship between mental health and physical health outcomes and will explore gender differences among these variables. We also assessed Reservists' non-military trauma history and will present findings related to the impact of trauma history on the outcomes mentioned above. Finally, we tested a model of sexual harassment to identify the characteristics of harassment that are associated with poor physical and mental health outcomes.

0637 **complex**

Childhood Sexual Abuse, Interpersonal Resources, and PTSD in Women

Lisa Stines, Kent State University; Stevan Hobfoll, Kent State University

The signature of abuse hypothesis suggests that the interpersonal nature of childhood abuse will cause interpersonal deficits in adult victims, and such deficits will mediate the relationship between childhood abuse and current PTSD. This loss of interpersonal resources decreases the victims' abilities to cope with further traumatic experiences, thereby leading to an increased vulnerability for ongoing resource loss. We examined the following hypotheses: (1) Women with history of childhood abuse will have fewer interpersonal resources and greater PTSD symptoms in adulthood than women with no history of abuse and (2) Interpersonal resources will mediate the relationship between childhood sexual abuse and PTSD as well as childhood physical abuse and PTSD. Women seeking treatment for substance abuse and trauma were interviewed. Child abuse survivors were found to have relationship vulnerability that increased their risk for PTSD symptomatology and diagnosis. Specifically, general interpersonal loss, but not relationship adjustment in their main romantic relationship, mediated the relationship between childhood physical abuse and PTSD. Interpersonal resource loss also mediated the relationship between childhood sexual abuse and PTSD. Child physical abuse was the stronger predictor of negative long-term mental health deficits when compared to child sexual abuse.

0638 **complex**

The Prevalence of Military Sexual Trauma Among Reservists

Amy Street, Women's Health Sciences Division, National Center for PTSD; Jane Stafford, Women's Health Sciences Division, National Center for PTSD; Tamara Bruce, Women's Health Sciences Division, National Center for PTSD; Clare Mahan, Department of Veterans Affairs Environmental Epidemiological Service; Ann Hendricks, Center for Health Quality, Outcomes and Economic Research (CHQOER); Deborah Bostock, Uniformed Services University of Health Sciences; Paula Schnurr, Executive Division, National Center for PTSD; Matthew Friedman, Executive Division, National Center for PTSD

Previous research has suggested that military sexual trauma is a significant problem among Active Duty Armed Forces. However, there is a paucity of available information on rates of military sexual trauma among members of the Reserve Components of the Armed Forces. The current project, a Congressionally-mandated investigation, is the first large-scale survey (N = 4500) to investigate prevalence rates of sexual harassment and sexual assault victimization experienced during Reservists' training experiences. This presentation will identify the prevalence rates of military sexual trauma victimization in this population, including differences in these prevalence rates by gender, time period of service, and specific component of the Reserves. In addition, victims of sexual harassment and assault will be compared with non-victims on mental health outcomes including posttraumatic stress disorder (PTSD), depression, substance abuse/dependence, and subjective quality of life. We will also examine gender differences among these outcomes. Finally, we will explore qualitative aspects of the military sexual trauma, including relationship with perpetrator, emotional reaction at the time of the trauma, organizational response to the traumatic experience, and prior victimization experiences, that are predictive of better and worse mental health outcomes.

0639 **complex**

Military vs. Civilian Sexual Assault: Service Utilization and Outcomes

Alina Suris, VA North TX Healthcare System, University of TX Southwestern Medical Center; T. Michael Kashner, University of Texas Southwestern Medical Center; Lisa Radika-Lind, VA North TX Healthcare System

Despite recognized clinical and therapeutic differences between combat- and civilian-based sexual assault, there has been little written in the scientific literature that compares military and civilian sexual trauma. In this study, we examined the differential effects of these two types of trauma on diagnosis of PTSD, psychiatric symptoms, health functioning, and quality of life. 270 women veterans were interviewed and stratified into groups with history of no sexual assault, military sexual assault, or civilian sexual assault. Preliminary analyses showed a strong and significant effect of military sexual assault on the development of PTSD even when controlling for relevent demographic characteristics, and previous assault in childhood. Significant differences at $p < .001$ were also found among the three groups on most of the Brief Symptom Inventory subscales, all nine subscales of the SF-36, and at $p<.05$ for 9 of Lehmans Quality of Life subscales. Our findings show that experiencing a military sexual assault has a significant effect upon a woman's chances of developing PTSD. Women who experienced childhood and/or civilian sexual assaults were less likely to report PTSD than those who were raped in the military. Results of this study highlight the need for additional research into the unique characteristics of rape in the military.

0640 **complex**

Longitudinal Analysis of Partner Abuse, Mental Health and Employment

Richard Tolman, University of Michigan-School of Social Work; Hui-Chen Wang, University of Michigan, Poverty Research Training Center

Partner abuse can interfere with women's ability to work and adversely affect their physical and mental health, further complicating their employment efforts. Cross-sectional analyses of the relationship between partner abuse

and employment have shown inconsistent results, and few studies have examined its economic and psychological impact over time. Using data from three waves of the Women's Employment Study, a longitudinal study of low-income women, we examine the relationship of domestic violence and women's employment, as measured by annual work hours, as well as the effect of domestic violence on psychiatric disorders. We compare two methods of estimating the effect of partner abuse on employment: OLS and fixed effects regression, controlling for demographic, human capital (such as work skills, previous work experience, education), and health status and mental health disorders. Our fixed effects models demonstrate that partner abuse has a significant and negative effect on annual work hours. Comparison of the two approaches suggest that it is important to account for unobserved characteristics of domestic violence victims, supporting the use of fixed-effects models for longitudinal analyses. Both fixed effects and logistic regression models demonstrate that partner abuse is associated with increased risk of psychiatric disorders.

0641 **complex**

Prior Trauma, Age Effects on Immigrants' PTSD Symptoms After Terrorism

Richard Trautman, University of Oklahoma Health Sciences Center; Phebe Tucker, University of Oklahoma Health Sciences Center Department of Psychiatry; Debby Doughty, University of Oklahoma Health Sciences Center Department of Psychiatry; Robert Nisbet, University of Oklahoma Health Sciences Center Department of Psychiatry; Betty Pfefferbaum, University of Oklahoma Health Sciences Center Department of Psychiatry; Buksh Azra, Catholic Charities of Oklahoma; Peteryne Miller, University of Oklahoma Health Sciences Center Department of Psychiatry

Objectives: Effects of the 1995 Oklahoma City bombing and prior trauma on immigrants living in the Oklahoma City community at the time were assessed 1 1/2 to 2 years later as part of a disaster mental health outreach program. Methods: 45 adult Asian and Middle Eastern immigrants were surveyed to assess demographics, physical and interpersonal bombing exposure, initial physiological and emotional responses to the bombing, exposure to prior trauma, and posttraumatic stress symptoms associated with Oklahoma's disaster and with prior trauma. Multiple regression using stepwise backward elimination determined the best model for predicting initial response and bombing-related PTSD symptoms. Analysis of variance (with post-Hoc Tukey multiple comparisons) assessed group differences. Differences between PTSD symptoms from the bombing and from prior trauma were assessed with dependent sample t-tests (significant at $p<0.05$). Findings: Most surveyed (41) had experienced prior trauma in their homelands. PTSD symptoms from earlier trauma was most predictive of initial response and later bomb-related PTSD symptoms. (94% of variance) Bomb-related PTSD symptoms increased with current age, (73% of variance) and was inversely related to age at prior trauma, with those traumatized before age 20 having higher symptomatology. Conclusion: Results underscore the importance of providing long-term disaster assistance to immigrants with previous trauma experience, especially those traumatized when young or those who were older when re-traumatized. Such individuals may be overlooked as mental health services target more direct victims of terrorism in a community.

0642 **complex**

Gender Differences in Sexual Abuse and Reactions to Disclosure

Sarah Ullman, University of Illinois at Chicago; Henrietta Filipas, University of Illinois at Chicago

Most studies of sexual abuse have focused on female victims with less attention to males in terms of disclosure experiences and reactions from social network members. Purpose: This study's purpose is to compare male and female students' child sexual abuse experiences and their experiences of disclosure and reactions from social network members. Methods: Data from a sample of male and female college students at an urban university are presented who completed a survey about sexual abuse experiences and social reactions received from others told about their experiences in either childhood or adult life phases. Findings: Significant gender differences in prevalence of sexual abuse experiences and the types of reactions they experience are reported. Analyses examine how abuse characteristics that typically vary by gender, such as duration of abuse and victim-offender relationship relate to both disclosure experiences and social reactions reported by male and female students. Conclusions: Further study is needed of the social context of disclosure of sexual abuse incidents in both child and adult life phases in males and females in community samples to better understand the gender differences in these experiences and how others react to them.

0643 **complex**

Alexithymia in Battered Women: Increasing our Understanding

Eve Valera, Harvard Medical School; Massachusetts Mental Health Center; Howard Berenbaum, University of Illinois at Urbana-Champaign

Alexithymia is a personality characteristic whose features include the diminished abilities to identify and verbally communicate ones own emotions. Elevated levels of alexithymia have been linked to trauma as well as mental health problems such as depression and posttraumatic stress disorder. Further, research suggests that assessing alexithymia may be valuable for understanding and treating psychological disturbances. Surprisingly however, there appears to be no research examining levels of alexithymia in battered women, or how alexithymia relates to battered women's trauma (e.g., partner abuse) or emotional functioning. Thus, in this study we assessed ninety-nine battered women using the Toronto Alexithymia Scale-20 and a battery of psychopathological and abuse history measures. Women were recruited from both shelters and community-based programs. Correlational analyses revealed that elevated levels of alexithymia were related to partner abuse severity over the past year. Further, alexithymia was also highly associated with general distress, worry, anxious arousal, anhedonic depression, and PTSD symptomatology. The relationship between alexithymia and partner abuse severity was significant independent of its relationship to these measures of psychopathology. These findings stress the need for more research examining alexithymia in battered women as well as the role alexithymia may play in the efficacy of intervention techniques.

0644 **complex**

Treating Trauma Survivors with Substance Abuse Problems

Laurie Weber, Women's Health Project, St. Luke's/Roosevelt Hospital Center

Many women presenting for treatment at urban mental health clinics have comorbid trauma-related and substance abuse disorders. The Women's Health Project (WHP) at St. Luke's—Roosevelt Hospital Center was founded in order to address the unique problems facing women with trauma histories and substance abuse problems. This talk will address the complicated constellation of issues that arise in this population as well as describe the WHP's approach to dual-diagnosis treatment. The patients we treat suffer from PTSD, anxiety and panic disorders, and depression, with multiple diagnoses being the norm. Substance abuse problems range from marijuana abuse to heroin addiction; many of our patients are polysubstance abusers. In addition, most of our patients face multiple social problems. My presentation will focus in detail on the treatment approach at the WHP, which is based on the Seeking Safety model. Issues covered will be how to create a lasting treatment alliance and a stable treatment frame; how to address case management issues; integrating relapse prevention techniques; the benefit of concurrent group and individual psychotherapy; the role of psychoeducation and coping skills development; common themes arising in treatment; and finding the optimal zone to work within.

0645 **complex**

Chronic Childhood Trauma, Maternal Attitudes and Health Problems

Agnieszka Widera-Wysoczanska, Institute of Psychology, Wroclaw University

In presented study the correlates between chronic childhood trauma (alcoholism, physical, sexual abuse), maternal attitude, and somatic problems, in a non-clinical sample (150) of men and women, not addicted to alcohol or drugs, were investigated. The checklist of health problems was developed. To recognize the types of chronic trauma, the Intimate Situations Questionnaire was used. To study the perception of the mother's attitude towards the investigated person, a standardized interview was used. The results of the study show that 99% of respondents had at least one of somatic problems. The short and long term health problems reported by survivors have been classified according to the body area affected. Types of somatic problems most likely to affect people from alcoholic families, victims of physical abuse, victims of sexual abuse, will be presented. Two kinds of the sources of somatic problems, emerged from the data: the concentration on the primary causes; the concentration on present problems. The bigger distance between mother and a child, the earlier appearance of the somatic problems, the longer the problems last and the more intensive they are. Nobody indicated beating or conflicts in the origin family as a cause of the health problems. People rather do not connect their health problems with the chronic childhood trauma, and do not seek the psychological help to cure them. The prevention issue will be discussed.

0646 **complex**

The Factors Determining the Long-Term Effects of Traumatic Loss

Sahika Yuksel, Istanbul Medical Faculty, Psychiatry Department; Tuba Olgun Ozpolat, Bakirköy State Hospital

90 people who lost a relative were accepted to the study. They were divided into groups according to the way of loss; 1- those whose relatives had died in a military fight; 2- those whose relatives were killed/still dissapeared, 3- those who lost their relatives because of leukemia. The subjects were evaluated through Semi Structured Interwiev Form, (HAM-D), (HAM-A), DSM-III-R (SCID), Inventory of Complicated Grief (ICG), and IES-R. The mean age of the participants are 39. 60% of them were women. 50% of the bereaved relatives were the ones who lost their siblings, 25% were mothers and 13% were fathers who lost their children. Psychiatric disorder of the ones whose relatives had died in a military fight is significantly more severe than the other groups. ICG and IES-R scores of the two groups who lost their relatives in a traumatic manner, were higher. The severity of the psychiatric illnesses and ICG tend to decrease in time. The bereaved mother, the women, the ones with low educational level, the ones who have a history of an affective or somatoform disorder and the ones who have chronic physical illness are found to have a higher score in psychiatric disorders and ICG.

Posters in Track 7

Culture, Diversity, Social Issues and Public Policy (culture)

Presented: **Friday, 4:00 p.m.–5:15 p.m.**

Poster Numbers 0701–0707

0701 **culture**

Concept Analysis of Acculturation in Refugee Mental Health

Seeba Anam, University of Chicago, University of Illinois at Chicago; Stevan Weine, University of Illinois at Chicago

Objective: To systematically examine applications of the concept of acculturation in the literature on refugee mental health as a basis for proposing a model consistent with post-modern/post-colonial views of culture. Methods: 27 articles (17 research studies and 10 review articles) were selected through computer-assisted searches and analysis of reference lists. Key words in the search included: acculturation; refugee; immigrant; family; youth; social adjustment; social adaptation; cultural competence; and mental health. Results: The review identified limitations in the application of acculturation in refugee mental health. Eight of 17 research papers endorse Berry's 1988 fourfold model of acculturation which emphasizes that the non-dominant culture can opt for: assimilation, integration, separation, or marginalization. Eleven of 17 studies of acculturation were limited to readily quantifiable cultural behaviors. Acculturation was merged with psychopathology and intergenerational conflict in 9 articles. Ten articles represented acculturation as unidirectional cultural exchange favoring the dominant culture. Conclusions: The current applications of acculturation in refugee mental health theory and research approach culture as a "thing" that is a basis for constructing categorical distinctions between cultural groups. Alternatively, acculturation can be viewed from the perspective of "critical multiculturalism" as interacting cultural differences, without presumptions of pathology.

0702 **culture**

Revictimization Among Lesbian, Gay, Bisexual and Heterosexual Adults

Kimberly Balsam, Esther Rothblum, University of Vermont

A large national sample of lesbians, gay men, and bisexual women and men were recruited along with their heterosexual siblings as a comparison group. 1,274 participants completed surveys regarding their experiences with childhood abuse and domestic violence and sexual assault in adulthood. Odds ratios were calculated to examine childhood physical abuse and childhood sexual abuse as predictors of adult domestic violence and adult sexual assault for each group. Significant gender and sexual orientation differences were found. Childhood physical abuse significantly predicted domestic violence for heterosexual and lesbian women, and sexual assault for heterosexual and gay men. Childhood sexual abuse predicted domestic violence for heterosexual and lesbian women, and adult sexual assault for gay men, heterosexual women, and lesbians. Number of lifetime victimization experiences was also calculated and compared in a 2(gender) X 3 (sexual orientation) ANOVA. Lesbian, gay, and bisexual participants reported significantly higher levels of victimization ($p < .001$) than heterosexual participants, with bisexuals reporting the highest levels of trauma among both male and female participants. Pearson's correlations revealed that number of victimization experiences significantly predicted current psychological distress among heterosexuals but not lesbian and gay participants.

0703 **culture**

The Psychophysiology of Orthostatic Panic Among Cambodian Refugees

Devon Hinton, Massachusetts General Hospital, Harvard University; Scott Orr, Massachusetts General Hospital, Harvard University; Roger Pitman, Massachusetts General Hospital, Harvard University

A high incidence of orthostatically induced panic has been reported in the Khmer, or Cambodian, refugee population (Hinton et al 2000). This high rate of panic may result from culturally specific catastrophic cognitions and/or an impaired blood pressure response to orthostasis. We examined heart rate and blood pressure responses during orthostatic challenge in 59 female Khmer refugees. Three groups were compared: patients with posttraumatic stress disorder (PTSD) and comorbid orthostatic panic, patients with orthostatic panic and no comorbid PTSD, and patients having other mental disorders but not PTSD or orthostatic panic. The group suffering PTSD with comorbid orthostatic panic had a significantly higher mean resting heart rate as well as an increase in systolic blood pressure during a part of the rest period when the other two groups showed a blood pressure decrease. During the orthostatic challenge, the group with orthostatic panic and no comorbid PTSD showed a blunted systolic blood pressure response to orthostasis compared to the other mental disorder group. Orthostatically induced dizziness and panic among Cambodian refugees likely involve a dynamic interaction of biology and culture.

0704 **culture**

Social Attitudes Toward Traumatized Men and Women

Michaela Mendelsohn, University of North Texas; Kenneth Sewell, University of North Texas

In general population studies, the risk of developing Posttraumatic Stress Disorder (PTSD) is approximately twice as high among women than men, even when controlling for sex differences in trauma exposure. Sex differences in prevalence emerge more consistently in response to some traumatic events than others. This study explored the potential contribution of gender-related beliefs about appropriate posttraumatic reactions by investigating the impact of victim sex and trauma type as well as participant sex, sex-role orientation, and personal trauma history on attitudes toward victims. Ninety-three male and 179 female students were administered the Bem Sex Role Inventory, the Trauma History Questionnaire, and a vignette measure of attitudes toward victims. Participants evaluated male victims significantly less favorably than female victims. Women had more positive attitudes toward victims than men. Feminine sex-typed and androgynous women rated victims more favorably than masculine sex-typed men and women. Participants regarded female criminal violence victims significantly more positively than male criminal violence victims, but did not differentiate between male and female natural disaster victims. There was a positive relation between personal trauma exposure and attitudes toward male victims among male participants. These findings contribute toward a theoretical understanding of gender and PTSD, and have important clinical applications.

0705 **culture**

Meanings of "Trauma" and "Refugee" for Bosnian Refugee Families

Nerina Muzurovic, University of Chicago; Stevan Weine, University of Illinois at Chicago; Jasmina Muzurovic, University of Illinois at Chicago; Yasmina Kulauzovic, University of Illinois at Chicago; Aida Mujagic, University of Illinois at Chicago; Sanela Besic, University of Illinois at Chicago; Suzanne Feetham, University of Illinois at Chicago; Ivan Pavkovic, University of Illinois at Chicago

Objective: To examine the meanings and uses of the key concepts of "trauma" and "refugee" as they pertain to children amongst refugee families based upon their discourse in multi-family groups. Method: Ethnographic data was gathered on 12 multi-family groups (of 9 sessions each) of Bosnian refugees in Chicago as a part of the CAFES (Coffee and Family Education and Support) Program. Qualitative analysis and textual coding of the key terms of "trauma", "refugee" and "children" was performed using Atlas/ti software in the Bosnian language. Results: Refugee families described two overall patterns of trauma and refugee histories affecting children: those who had a direct trauma exposure and forced migration; those who experienced forced migration and had indirect trauma exposure. Families articulate the consequences of refugee and trauma experiences for children in multiple dimensions, including: (1) Little explicit family communication on trauma in Bosnia; (2) Much focus on children's endangerment in urban America; (3) Concerns regarding children's losing their Bosnian identity; (4) Concerns that children grew up so fast and lost their childhood. Conclusion: This preliminary analysis of ethnographic data from refugee families demonstrates the multi-dimensional nature of traumas' consequences upon children. Further research should investigate the ways in which the affects associated with war trauma get expressed in the family experience.

0706 **culture**

Hidden from View: Hunger in Refugees and Those Seeking Asylum

Linda Piwowarczyk, Boston Center for Refugee Health and Human Rights, Boston University School of Medicine

Thousands of individuals as refugees and asylum seekers enter the United States each year seeking protection. Some are eligible for financial assistance—others must wait until submitting asylum claims and obtaining eligibility for work authorization. In this interim period, however, they are often subjected to severe conditions out of their inability to contribute financially to households. They may have to move from place to place, and must rely on others for food and subsistence. Having in many cases been survivors of torture and other trauma, this social dynamic recreates undue hardship and may rise to the level of "cruel and unusual punishment." Information will be shared regarding the experience of the International Mental Health Program of the Boston Center for Refugee Health and Human Rights in its effort to provide treatment for the whole person.

0707 **culture**

Developing Culturally Competent Interventions for Refugee Youth

Stevan Weine, University of Illinois at Chicago; Yasmina Kulauzovic, University of Illinois at Chicago; Jasmina Muzurovic, University of Illinois at Chicago; Alma Lezic, University of Illinois at Chicago; Sanela Besic, University of Illinois at Chicago; Aida Mujagic, University of Illinois at Chicago; Suzanne Feetham, University of Illinois at Chicago; Ivan Pavkovic, University of Illinois at Chicago

Objective: To develope family-focused intervention for refugee youth and their families through analysis of ethnographic materials pertaining to the piloting of the Youth CAFES intervention. Method: This study analyzed ethnographic material from Youth CAFES, including the initial intervention manual, field notes from three groups meetings of seven session each, and field notes from weekly supervision meetings. This material was transcribed from handwritten notes and audio-recordings. Textual coding and analysis was conducted using ATLAS/ti for Windows. Results: Overall, families perceive the CAFES intervention as very helpful, in that groups provide support, problem solving, and information. Single parent families report finding CAFES especially useful. Trauma is a less pressing problem for families then their children's difficulties in school and city life, as is reflected in the intervention manual. The groups reveal additional dimensions that call for further revisions of the manual, including addressing financial worries, improving family dialogue, proposing new beliefs regarding freedom and opportunity, and providing more school information. Conclusion: Ethnographic evidence can assist refugee mental health in making interventions more culturally competent through providing evidence of context, meaning, and interaction that can be used to revise intervention models and practices.

Posters in Track 9

Disaster, Mass Trauma, Prevention, and Early Intervention (disaster)

Presented: **Friday, 1:00 p.m.–2:15 p.m.**

Poster Numbers 0901–0923

0901 **disaster**

Emotional and Cognitive Predictors of Distress Following 9/11/01

Lisa Butler, Stanford University School of Medicine; Jay Azarow, Stanford University School of Medicine; Juliette Desjardins, Stanford University School of Medicine; Andrew Hastings, Stanford University School of Medicine; David Spiegel, Stanford University School of Medicine

Previous research indicates that emotional expression and cognitive processing, including meaning-finding, are essential to healing from traumatic experience. We examine these factors in a nonclinical sample (N = 1000) that is part of a large Internet-based prospective study of distress and resiliency in response to the terrorist attacks of 9/11/01. We predicted that Americans at most risk for long-term traumatic stress symptoms and other distress following the attacks would be those who: (1) manifest a repressive defensive style; (2) tend to suppress expression of primary negative affect (anger, fear, sadness); (3) live in social environments that constrain their ability to discuss (and thereby delineate and work through) their thoughts and feelings about their experience; and (4) report negative changes in existential outlook following the attacks. We will test these hypotheses using: (1) data on predictor variables from the baseline assessment (2-12 weeks after the attacks); and (2) data on outcomes (including posttraumatic stress disorder symptoms and general distress) that were collected both at baseline and at 6-month follow-up (which is currently underway). Findings from these analyses may further illuminate how inhibited engagement of the emotional and cognitive aspects of traumatic experience affect longer-term adjustment.

0902 **disaster**

The World Trade Center Disaster on the Trauma of Holocaust Survivors

Thomas Demaria, South Nassau Communities Hospital; Minna Barrett, South Nassau Communities Hospital

The World Trade Center affected many Americans especially those suffering direct loss or who had exposure to the event. Previous research has noted an increase in re-experiencing as holocaust survivors grow older. This poster will review reactions of Holocaust survivors who reported a significant increase in distress and symptoms of post traumatic stress disorder following 9/11.

0903 **disaster**

Traumatic Grief Among Adult Siblings of WTC Victims

David Flomenhaft, South Nassau Communities Hospital; Bobbie Comforto, South Nassau Communities Hospital

The adult siblings of the WTC victims identify themselves as the "forgotten ones". Their profound distress and traumatic grief often left them isolated and unable to attend to their psychological needs. In their families they were called upon to care for grieving parents, bereft sisters and brothers in-law and to step in as surrogate parents for their nieces and nephews. A dynamic Adult Sibling Group Psychotherapy program was started soon after the WTC tradegy at the South Nassau Communities Hospital WTC Family Service Center. The center is based in Rockville Centre, NY on Long Island, a suburb of NYC. The weekly Sibling Group has 50 members. The group is led by three social work psychotherapists. Child care and activity therapy programs are offerred for the attendees children. The unique elements of the WTC victims are there ethnic and religous commonalities. Many were from large Irish Catholic families with broad extended family relationships. Many of the deceased males were significant male figures among their siblings and often functioned as surrogate parents for their siblings. These extensive family ties contributed to group themes that included the broken circle in the family, the sense of not being acknowledged as mourners, and difficulty of managing grieving parents. The "competition of grief" theme where others minimized their grief reactions was also a divisive element in their mourning process. The traumatic grief elements were compounded by the absense of a body, and the later retraumatization for some when body parts were returned to the families. A consistent membership of male and female sibling group members processed their grief as well as PTSD and depressive symptoms. Psychoeducation by group leaders addressed coping strategies for anger expression, the members need for details and retraumatization via excessive media exposure, apathy, alcohol abuse, isolation and withdrawal from their families. Sibling group members also completed the PENN Inventory (a PTSD assessment tool) and the QOLI (Quality of Life Inventory) to assess function and symptomolgy. This poster session will describe the Adult Sibling group psychotherapy format, the psychoeducation goals to process complicated and traumatic grief and the outcome of research instruments that assess PTSD and quality of life satisfaction.

0904 **disaster**

Psychiatric Patients' Vulnerability After the September 11 Attacks

Laurel Franklin, Department of Psychiatry and Human Behavior, Brown University; Diane Young, Department of Psychiatry and Human Behavior, Brown University; Mark Zimmerman, Department of Psychiatry and Human Behavior, Brown University

The September 11th (9/11) terrorist attacks led to speculation about the vulnerability of psychiatric patients to psychological distress following such events. This study examined the impact of national terrorist attacks on psychiatric and medical outpatients living approximately 100 to 150 miles from the attack sites (N = 308). Two to three weeks following 9/11, patients were given questionnaires assessing background information and psychiatric symptoms, including the Posttraumatic Diagnostic Scale (PDS). Psychiatric patients (33%) were significantly more likely than medical patients (13%) to report distressing symptoms meeting the PDS cutoff for PTSD (except for the duration criterion), despite no differences in learning about the attacks or personal involvement with the victims. Patients meeting the PDS cutoff for PTSD were more likely to schedule an appointment to speak with their physician about their reactions. Psychiatric patients may therefore be at increased risk for experiencing distressing symptoms following national terrorist attacks.

0905 **disaster**

Responding Psychiatrically to the Medically Injured of September 11th

Geoffery Grammer, Walter Reed Army Medical Center; Harold Wain, Walter Reed Army Medical Center; John Stasinos, Walter Reed Army Medical Center; Shannon Boyer, Walter Reed Army Medical Center

On September 11, 2001 our nation endured a trauma that left us more vulnerable than one expected. Our sense of invincibility was shattered. The need to mobilize our resources to care for the medically and psychiatrically injured was a prominent goal. The role that The Psychiatry Consultation Liaison Service (PCLS) at Walter Reed played in helping patients and staff recover from the disaster will be discussed. The reason and the administrative issues in visiting the injured and transporting the mechanics of the PCLS to other local hospitals where patients were being treated will be described. The Therapeutic Debriefing Approach used will be described and contrasted with the Critical Incident Debriefing approaches. Some of the tools of attempting to Prevent Post Traumatic Distress is these patients will be highlighted. The Counter Transference and Transference issues associated with working with the patients, staff and family will also be described. The organization of the

service in order to attempt to handle the conflicts of the patients and the staff will be reviewed. Procedures in maintaining follow up with the injured patients will also be described.

0906 **disaster**

Interventions in a Workplace After September 11, 2001

Are Holen, Norwegian University of Science and Technology

In a high-rise building in Mid-Manhattan on September 11, 2001 at an international trade bank, 81 employees watched the developments at the World Trade Center. Two of the employees had spouses and several had close friends in the towers. After the buildings collapsed in front of their eyes, it was almost impossible for days to get any work done at the bank; the level of distress was too high. The presenter was called in for help. All consenting employees were screened by questionnaires with regard to PTSD-symptoms, distress, and manifestations of bereavement. Individual and group sessions according to RITS principles (RITS—Reconstruction and Integration of Traumatic Stress; an intervention developed in Scandinavia) were offered, especially to those with high scores on the screening instruments. Shortly after the intervention, work in the bank returned to normal. The approach used will be discussed, some of the quantitative results based on the questionnaires will be presented and discussed together with qualitative findings from the RITS sessions. Also, issues related to Complex PTSD will be touched upon.

0907 **disaster**

The Mandala and STS: Debriefing 9-11 Crisis Counselors

Marianna Janicelli, MCP Hahnemann University; Nancy Gerber, MCP Hahnemann University

This qualitative, phenomenological study was conducted with crisis intervention counselors, active in New York following the September 11 attack. Its purpose was to develop an understanding of the "essence" of two related experiences: the experience of being a crisis intervention counselor, and the experience of making a mandala drawing as a potential protocol for trauma counselor debriefing. The study was based on current literature, which supports the existence of secondary traumatic stress (STS), during and following the counseling experience (Figley, 1995; Saakvitne and Pearlman, 1996). Literature also supports the use of the mandala for integration and transformation (Jung, 1973; Kellogg,1978; Lusebrink, 1988). Data was analyzed for the essence of both experiences overall, and for each individual circumstance, in order to provide an overview, and an examination of possible etiologies. Findings indicate that STS responses were immediate, and remained, in some form, six months later, regardless of individual circumstance. Variations of circumstance, and resultant severity of symptomology were examined. The making of a mandala was found to provide a safe environment for insight, integration, and transformation of crisis intervention material, regardless of individual circumstance. It yielded positive physical, emotional, and cognitive gains, and may have potential as a debriefing protocol.

0908 **disaster**

Attack on America: Initial Reactions, Memory, and PTSD Symptoms

Mindy Korol, Mount St. Mary's College; Rhonda Korol, Lyndon State College; Korol Donna, University of Illinois, Champagne-Urbana

This study explored initial memories and ways of responding to the September 11 Attack on America. The participants consisted of approximately 100 students and 40 faculty and staff at each of three different sites (Washington DC area, northern New England, and mid-west) for a total of about 300 students and 120 faculty and staff. The students were recruited from various classes and faculty and staff were recruited through inter-campus mail. The research protocol consisted of a short demographics form and three questionnaires. The first questionnaire, modeled after questionnaires used previously in flashbulb memory research, inquired about vividness and certainty of memory relating to the September 11 attacks. The second questionnaire, the Impact of Event Scale (IES)—Revised was used to assess PTSD symptoms. The third scale, the Coping Strategies Inventory assessed coping of a stressful event along 8 dimensions. Data was collected approximately 2-3 weeks post-trauma. A three-way ANOVA (geographic location x age x gender) is being conducted to compare the three sites, young and middle age adults, and males and females in terms of both memory processes and emotional responses. Also, a regression analysis is being used to assess factors (memory, media exposure, coping) that predict acute PTSD symptoms.

0909

Predictors of Psychological Distress Following 9/11

Eric Kuhn, University at Albany, State University of New York; Dianna Rowell, University at Albany, State University of New York; Rebecca Gusmano, University at Albany, State University of New York; Edward Blanchard, University at Albany, State University of New York

This investigation examined the causal relationships among variables antecedent to (e.g., number of past traumatic events) and concurrent with (e.g., level of exposure) the events of September 11th and acute stress, posttraumatic stress, and depressive symptoms, and participation in reparative activities (e.g., donated blood or money) following these events. Five-hundred-seven undergraduates at the University at Albany anonymously answered a series of questions prepared for this study and several well-standardized questionnaires. The theoretical path model was evaluated with LISREL 8.5 using the sample covariance matrix as input and maximum likelihood solution. A variety of global indices of model fit were examined, in addition residuals and modification indices for specific points within the model which might elucidate ill-fit were inspected. Overall, the theoretical model fit the data moderately well; however, specific fit indices suggested that model modifications would significantly improve model fit. A theoretically justified, post-hoc model alteration was conducted which significantly improved model fit. Both the theoretical model and the final model are presented. These models support both direct and/or indirect effects of gender, level of exposure, connectedness, past traumatic events, and past depression on past acute stress symptoms, current posttraumatic stress and depressive symptoms, and engagement in reparative acts.

0910 **disaster**

The Effect of Proximity to Ground Zero on Posttraumatic Distress

Eric Kuhn, University at Albany, State University of New York; Dianna Rowell, University at Albany, State University of New York; Rebecca Gusmano, University at Albany, State University of New York; Edward Blanchard, University at Albany, State University of New York; Rebbeca Rogers, Augusta State University; David Wittrock, North Dakota State University

North et al. (1994) showed the proximity to the area where a mass shooting occurred clearly predicted eventual presence of PTSD. Additionally, Sprang (1995) found little or no reaction among adults 900 miles away from Oklahoma City bombing site in comparison to residents of Oklahoma City assessed 6 months after the attack. The present study sought to examine if proximity to "ground zero" would lead to differences in acute stress, posttraumatic stress, and depressive symptomatic responses and in diagnosable reactions. This study compares data collected at a proximal site, Albany, NY to those collected using the same instruments, at the same time, at two locations remote from the attacks, Augusta, GA, and Fargo, ND. Additionally, we examined differences in acute stress symptoms (ASS), posttraumatic stress symptoms (PTSS), and depressive symptoms (DS) within the Albany sample as a function of proximity of the students' residences to NYC. As predicted, between site differences were found in probable ASD and PTSD as well as ASS, PTSS, and DS. Finally, within the Albany site, proximity differences were found with respect to PTSS: participants from NYC and the connecting counties evidenced higher PTSS than those from the more distal counties.

0911 **disaster**

Chronic Stress and Physical Activity in Relief and Development Workers

Linnea Larson, Headington Program in International Trauma, Fuller Graduate School of Psychology; Leslie Ross, Headington Program in International Trauma, Fuller Graduate School of Psychology; Anne Turk, Headington Program in International Trauma, Fuller Graduate School of Psychology; Gladys Mwiti, Headington Program in International Trauma, Fuller Graduate School of Psychology; Cynthia Eriksson, Headington Program in International Trauma, Fuller Graduate School of Psychology; David Foy, Headington Program in International Trauma, Fuller Graduate School of Psychology; Jeffrey Bjorck, Fuller Graduate School of Psychology; John Fawcett, World Vision International

Stress management is a key issue for humanitarian aid staff because they are exposed to cumulative traumatic stress, chronic stress due to difficult living situations, and organizational stress. Psychological support, training, and time for leisure and recreational activities have been recommended to relieve stress among relief and development workers. In other populations physical activity has been found to be associated with lower perceived stress; however, these variables have not been studied in relief and development settings. This study examined links between participation in physical activity and stress among 78 international relief and development personnel in field locations worldwide. Staff completed an email survey and telephone interview assessing exposure to 18 chronic stressors (e.g., separation from family, feeling powerless, and travel difficulties), the level of distress from these stressors, and physical activity levels. Participation in physical activity was negatively associated with reported level of distress from chronic stressors, but was not related to the number of chronic stress items that were endorsed. Although a causal relationship cannot be determined, these results suggest that encouraging relief and development staff to participate in regular physical activity could help ameliorate distress levels related to the inevitable stressors that occur during relief and development work.

0912 **disaster**

Social Work Israeli Students' Responses to Terrorist Attacks

Rachel Lev-Wiesel, Department of Social Work, Ben Gurion University; Nancy Slater, Department of Social Work, Ben Gurion University

The study aimed to analyze social work Israeli's responses to the September 11th events compared to their responses to the terrorist attacks within Israel. Two groups of MA students (n=24) were asked to reflect their responses, either to the September 11th events (Group S) or to the terrorist attacks in Israel (Group TA), through drawing, narratives, followed by a discussion and a group drawing. The drawings were analyzed according to the following categories, line, color, style, and forms; the narratives were analyzed according the following categories, main themes, symbols, associations, feelings and emotions, coping defenses and coping strategies. Results indicated a strong association between themes and feelings toward the September 11th events and terrorist attacks within Israel, yet several differences regarding the dissociation mechanisms were found, whereas for example, human figures drawn by Group S were ruined,human figures drawn by Group TA remained complete, yet filled with blood and tears.

0913 **Withdrawn**

0914 **disaster**

Memories, Emotions and Beliefs About the 9/11 Attack

Kevin Ochsner, Stanford University, Department Psych.; John Gabrieli, Stanford University, Department Psych.

In the aftermath of the terrorist attacks of 9/11/2001, many people said they would never forget the traumatic and historically important events of that day. How does the expectation that this event has been indelibly stored as a flashbulb memory influence beliefs about, and emotional responses to, what took place? Researchers at Stanford, Harvard, Yale, NYU, Georgetown, Washington University and UCSC collaborated to address this question. A questionnaire distributed at all sites between 9/17 and 9/23 assessed memory for 1) the specific content of the events, and 2) the circumstances in which one learned about them, 3) six types of emotional responses, 4) interpretations of the personal and cultural meaning of the Attack, and 5) forecasts of future feelings about, and the ability to remember, the Attack. 1503 surveys were returned from the initial sampling, of which 546 were from residents of New York City or its surrounding area. Analyses examine the extent to which memory, emotion, interpretation, and beliefs about their durability, differ as a function of proximity to, and experience of, the Attack. Affective forecasts of future emotions may provide insight into judgments of the ability to cope with traumatic events over time.

0915 **disaster**

Impact of September 11 on Refugees and Those Seeking Asylum

Linda Piwowarczyk, Boston Center for Refugee Health and Human Rights (BCRHHR), Boston University School of Medicine (BUSM); Terence Keane, BCRHHR, National Center for PTSD, BUSM; Aida Cajdric, BCRHHR, National Center for PTSD

September 11 had has a profound effect on the families and workers intimately involved, as well as those living in America. Refugees and those seeking asylum fled their countries of origin to come to the United States in an effort to find safety and protection. Many have become re-traumatized by the events which they witnessed on television, in addition to the wave of sentiments distrustful of those of foreign origin or "seemingly foreign origin." Some have had to change their lifestyle out of fear. In addition, they have reported deterioration in their emotional and physical health. Qualitative and quantitative information will be shared regarding those who have sought treatment at the International Mental Health Program of the Boston Center for Refugee Health and Human Rights.

0916 **disaster**

Social and Moral Disruption in Children's Representations of Trauma

Sandra Rafman, Department Psychology, McGill University Health Center-Montreal Children's Hospital

Disruptions experienced by children in contexts in critical medical and social events include fragmentation and loss in the moral as well as the physical, relational and social order. This conceptualization may account for the potentially traumatic impact of these experiences. We hypothesized that a) the loss of a rule-governed moral universe would be reflected in the representations of the children who had encountered such contexts, and c) different critical experiences would present different socio-moral dilemmas and c) the ability to address these dilemmas would distinguish clinical from non-clinical children. Fifty children (aged 3-11 years) from community based, prevention and therapeutic settings and their families participated. Fifteen children had experienced war, fifteen had experienced parental loss in war, ten face a life-threatening illness and ten have lost a sibling to illness or injury. Play representations and interviews of the children and their families are analyzed and compared in terms of dominant motifs. Dilemmas related to good and evil, trust and betrayal, protection and aggression are prevalent in children's representations yet death looms as the consequence of a wrong choice. Children's ability (in parallel to their parent's ability) to address these issues affected their clinical status. The difficulty in mourning the loss of a moral universe as well as a relational one contributes to traumatic grief. This dimension is essential in addressing children's concerns regarding the attacks of September 11.

0917 **disaster**

Functioning of Veterans with PTSD Following 9-11-01 Terrorist Attacks

Craig Rosen, VA National Center for PTSD; Quyen Tiet, VA Center for Health Care Evaluation; Mark Greenbaum, VA VISN 21 Mental Illness Research Edcation and Clinical Center; Helen Chow, VA VISN 21 Mental Illness Research Edcation and Clinical Center; Jerome Yesavage, VA VISN 21 Mental Illness Research Edcation and Clinical Center and Stanford University

Purpose: Prior PTSD is often considered a risk factor for poor adjustment to new traumatic events. This study assessed functioning of California veterans with pre-existing PTSD before and six months after the September 11 attacks. Methods: PTSD patients (n = 254) participating in a longitudinal study of VA care in California were re-contacted six months after the September 11 attacks to assess changes in their functioning. Results are reported for the first 99 respondents. Results: Patients' mean symptoms (Impact of Events Scale-Revised, Symptom Checklist 6), substance use (Addiction Severity Index), and social/role functioning (items from the SF-12V and Health and Daily Living Questionnaire) did not worsen over time. Few patients (6 of 99) knew anyone injured or killed in the attacks or participated in recovery efforts. Amount of exposure to media coverage of 9-11 events did not predict later symptoms, but did predict whether patients attributed current problems to the terrorist attacks. Conclusions: The acute stress of the September 11 attacks appears to have had little enduring effect on the functioning of PTSD patients who were not directly exposed to the attacks or recovery efforts. Nonetheless, some chronic PTSD patients may attribute current problems to the aftermath of 9-11 events.

0918 **disaster**

9/11: A Comparison of Individuals Near the Pentagon vs. the WTC

Dianna Rowell, University at Albany, SUNY; Eric Kuhn, University at Albany, SUNY; Rebecca Gusmano, University at Albany, SUNY; Edward Blanchard, University at Albany, SUNY; Debra Steckler, Mary Washington College

It is presumed those closest to the World Trade Center and Pentagon attacks were most affected by the events of September 11, 2001. Thus, 507 students in Albany, NY and 59 students from Mary Washington College (MWC) in Fredericksburg, VA completed measures of acute stress (AS) and posttraumatic stress (PTS) disorders, depression, and exposure to the attacks. Considering their respective proximities to the sites of the attacks, students from both locations should resemble each other in their traumatic responses, depressive symptoms, and a variety of exposure and reparative variables. Albany students showed more traumatic symptoms than the MWC sample, but there was no difference in depressive symptoms. The two samples resembled each other in percentages who volunteered and attended services after the attacks. However, Albany students reported more media exposure in the week after 9/11. Also, a greater percentage of Albany students personally knew victims of the attacks, knew someone living in New York City and had been to the World Trade Center. Possible reasons for the discrepancy in traumatic symptoms are discussed including differences in the nature of relationships with victims, media exposure, the students' communities and institutions, and the type of exposure to and targets of the attacks.

0919 **disaster**

Parents Report on Their Children's Reactions to September 11, 2001

Jennifer Specht, University of Wisconsin-Milwaukee; W. Hobart Davies, University of Wisconsin-Milwaukee; Child Stress and Coping Research Group, University of Wisconsin-Milwaukee

One hundred eleven parents (84% mothers; M=36.05 years old) of 5-11 year olds (M=7.87) were interviewed concerning their child's reactions to the terrorist attacks of September 11. The interview was conducted 4-6 weeks after the attacks and utilized the Behavior Analytic Model to assess a wide range of behavioral and emotional concerns beyond a focus on psychopathology. Parents completed the Impact of Events Scale—Revised (IES-R) about themselves and the Pediatric Emotional Distress Scale (PEDS) on their child. The interviews yielded a total of 421 problematic situations. Participants were specifically asked about situations falling in four domains; Emotional Reactions, Behavioral Changes, Relations with Family and Peers, and Media. Parents who report more PTSD symptoms on the IES-R also report significantly more total problems, emotional reactions, and behavior changes in their children following the attack. Additionally, children who were rated higher on the PEDS were also reported to have significantly more total problems, emotional reactions, behavior changes, and mixed/other situations. These findings highlight the importance of taking a family systems perspective in examining the functioning of children exposed to terrorist acts. They also suggest that evaluations that go beyond psychopathology may be necessary for designing ecologically valid interventions.

0920 **disaster**

The Psychological Effects of September 11, 2001, in Japan

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At the time of the terrorist attacks, many people in Japan watched the scene of WTC being destroyed on telecast repeatedly. This study aimed to assess the psychological effects of the attacks. We investigated whether patients with anxiety disorder, affective disorder, and schizophrenia tend to develop posttraumatic stress disorders (PTSD) symptoms. We also investigate whether personality traits and dissociative tendencies contribute to precipitating PTSD symptoms. Twenty-eight non-clinical subjects and 34 psychiatric out-patients; 12 subjects with anxiety disorder, 11 with affective disorder, and 11 with schizophrenia participated in this study. The Impact of Event Scale-Revised (IES-R) was administered at 2 weeks, 4 months, and 6 months after the attacks. In addition, we administered the Maudsley Personality Inventory (MPI) and the Dissociative Experiences Scale (DES) at 6 months after the attacks. At 2 weeks, none of non-clinical subjects (0%), 25% of anxiety disorder, 36% of affective disorder, 27% of schizophrenia scored 25 points or above on IES-R. At 4 months, the results were 0%, 0%, 17%, and 22% respectively. At 2 weeks, the IES-R score of non-clinical subjects was lower than that of anxiety disorder ($p < 0.05$), or that of schizophrenia ($p < 0.01$). But compared with the patients with affective disorder, there was no statistical difference. At 4 months, the score of non-clinical subjects was lower than that of the each three patient groups ($p < 0.05$). And there were no differences on the score among the three groups at 2 weeks and 4 months. Our results suggested that the attacks caused PTSD symptoms even in Japanese population, and that psychiatric disorders, such as anxiety disorder, affective disorder, and schizophrenia should be considered as a predisposition to developing PTSD symptoms. The results of MPI, DES and IES-R at 6 months will also be presented. In light of predisposing factors to PTSD, personality traits and dissociative tendencies will be discussed as well.

0921 **disaster**

Peritraumatic Prescription of Propranolol Decreases Acute PTSD Symptoms

Guillaume Vaiva, University Lille II; Francois Ducrocq, University Lille II; Karine Jezequel, University Lille II; Benoit Averland, University Lille II; Philippe Lestavel, University Lille II; Alain Brunet, McGill University, Douglas Hospital Research Center; Charles Marmar, University of California, VA Medical Center

Aim of the study. Prolonged hyperadrenergy, primarily the tachycardia, was prospectively shown to increase the risk for Posttraumatic Stress Disorder (PTSD). We studied the influence of propranolol prescribed immediately after a traumatic event to victims with an initial tachycardia. Method: the victims were recruited at the Emergency Department, within 24 hours after a motor vehicle accident or a physical assault. We seeked individuals under 30 years old in good physical health, and who had a tachycardia of 90 beats per minute after 20 minutes of rest in a lying position. Among the participants who accepted the medication, 80-120 mg/day of propranolol was given. All participants were assessed by a psychiatrist two months later for PTSD symptoms and diagnosis. Results. Propranolol was first delivered 2-20 hours after the trauma (M=9.5, SD=6). Two months later, 3 participants presented with a complete PTSD and 3 others with a subsyndromal PTSD among the 8 participants having refused the propranolol. Only one participant presented with a PTSD and 3 others with a subsyndromal PTSD among the 11 participants receiving the propranolol. The between group difference was significant for the rate of PTSD (p=.012). Comment: this pilot study suggests that administering propranolol to young and healthy individuals with an elevated peritraumatic tachycardia may be effective and well tolerated in mitigating PTSD symptoms and, perhaps, in preventing PTSD. Propranolol would merit a prolonged double-blind prospective study, with a much larger sample.

0922 **disaster**

The Role of Ethno-Cultural Variables in Response to Terrorism

Katrina Walker, East Carolina University; Dennis Chestnut, East Carolina University

The threat of terrorism is having a profound impact on the lives of Americans. As researchers we are called upon to provide explanations, solutions, and assistance for the relief of emotional trauma perceived, and experienced, resulting from disasters and terrorism. The current study gives attention to ethno-cultural variables of ethnic background, gender, and age in an effort to better understand first reactions to what happened, explanations for what happened, and reactions to what happened on September 11. Data were obtained from a sample of convenience including university students, church and civic group members, and people of the general community. The questionnaire developed by the researchers allowed participants to give free-format responses regarding the attacks. Results suggest variables of ethnic background, gender, and age influence reactions to terrorist acts. Ethnic background and gender influenced causal explanations about the attacks. Particularly strong gender differences were noted in how participants were affected by the attacks. The strongest similarities were observed in reports of first reactions to news of the events with most people experiencing shock and disbelief. Conclusions drawn stress the importance of future mental health interventions and research giving strong consideration to ethno-cultural variables when dealing with victims of terrorism.

0923 **disaster**

Responding to Those Who Respond: Intervention and Research Methods

Jeffrey Yarvis, The University of Georgia and the US Army; Patrick Bordnick, The University of Georgia

This study represents a pilot study on secondary stress in mental health responders associated with the Pentagon disaster. It describes the factors in crisis intervention that make the work with traumatized victims of events such as the September 11th attack on the United States particularly stressful. Past methodological limitations of previous investigations, leading to the development of assessment methods to identify those characteristics and factors that predict negative outcome/responses in individuals post disaster are explicated. An in depth discussion of the prevalence of secondary traumatic stress disorder for this population is presented. A look at previously developed debriefing methods used by crisis workers is adapted especially for use with responders will occur. The ideas and procedures put forward have evolved from a need identified in extensive literature reviews on victims of catastrophic events. An argument that mental health responders, as distinct form other emergency responders, require psychological understanding and integration to be able to function and intervene effectively is made. Findings from a recent pilot study of the military social work responders of Operation Provide Solace-The Pentagon, are detailed.

Posters in Track 11

Miscellaneous (misc)

Presented: **Friday, 1:00 p.m.–2:15 p.m.**

Poster Numbers 1101–1111

1101 **misc**

The Association Between PTSD, Social Support and Physical Health

Casey Bolinske, Washington State University; Paige Ouimette, Washington State University

Research has consistently found that Posttraumatic Stress Disorder (PTSD) is associated with a higher frequency of self-reported physical health symptoms, conditions and a lower rating of perceived global health. This study examined the association between PTSD, social support, and physical health. The primary interest is to determine if social support moderates the relationship between PTSD and physical health. Previous research has found that people with higher levels of social support not only report less physical health symptomatology, but also lower levels of PTSD. 134 male and female participants from VA primary care clinics were assessed on the amount of social support and stressors they received from their spouses and friends. Participants also completed measures on their physical health and PTSD was assessed with a structured interview. Zero-order correlations showed a significant relationship between PTSD and physical health symptoms. Zero-order correlations also showed a significant relationship between PTSD and social support. No association was found between social support and physical health symptoms. Future analysis are planned to examine the moderating effects of social support and gender on the association between PTSD and physical health.

1102 **misc**

The Role of Spirituality in Posttraumatic Growth

Susan Cadell, University of British Columbia

This research was designed to explore the factors that contributed to the post-traumatic growth of people who have cared for someone who has died of Acquired Immune Deficiency Syndrome (AIDS)-related illnesses or complications related to Human Immunodeficiency Virus (HIV) disease. The research consisted of a cross-sectional study of 176 bereaved caregivers. Measures were selected to assess demographics, spirituality, social support, depression, traumatic symptomatology and post-traumatic growth. In addition, interviews were conducted with 15 individuals chosen for their growth scores. 86.4% of the sample experienced symptoms indicative of PTSD. A structural equation model was tested which demonstrated the positive relationship between spirituality and post-traumatic growth. Additional statistical tests and the interview data pointed to the significance of spirituality in the formation of positive outcomes from the traumatic experience of caring for someone who had died of AIDS-related complications. This research highlights the importance of spirituality in the positive outcomes of trauma. The knowledge of factors that can play a role in posttraumatic growth can contribute to the practice of those working with trauma at any level of intervention.

1103 **misc**

Burnout, Compassion Satisfaction and Fatigue in Colorado Caseworkers

David Conrad, JFK Partners/Department of Pediatrics, University of Colorado Health Sciences Center

The Compassion Satisfaction/Fatigue Self-Test for Helpers was used to determine the risk for compassion fatigue and burnout and potential for compassion satisfaction among Colorado caseworkers (CPS) and to identify demographic variables that predict them. The 66 item self-report instrument was administered to 390 front-line staff. Fifty-eight percent of CPS staff scored in the very high or high range of compassion fatigue. No workers scored in the very high range for burnout and only eleven percent scored in the high range. Though only three percent of the workers reported a very high potential for compassion satisfaction, seventy-five percent reported a high or good potential. Of all demographic variables tested only gender was a significant predictor of compassion fatigue. Women had statistically higher levels of compassion fatigue than men. In conclusion, although almost 60 percent of CPS staff suffered from high or very high levels of compassion fatigue, the risk for burnout was considerably lower. Compassion satisfaction appears to protect against burnout. Women are at significantly greater risk for compassion fatigue than men.

1104 **withdrawn**

1105 **misc**

Using Experiential Exercises

Sarah Gamble, Traumatic Stress Institute

The Risking Connection curriculum relies on active involvment of participants. Learning a new way of working with traumatized clients ideally involves doing and feeling as well as listening and thinking. Experiential exercises designed to teach assessment, working with crises, and vicarious traumatization will be described. Strategies for eliciting participation, structuring exercises, and debriefing will be covered.

1106 **misc**

Translating Research to Prevention: Memory Structuring Intervention

Yoram Gidron, Ben-Gurion University

Meta-analyses demonstrate that early psychological interventions rarely reduce risk of posttraumatic stress disorder (PTSD). However, chronological organization and understanding causality between event-segments has been shown to predict better outcomes. Cognitive-neuroscience studies demonstrate that PTSD patients process trauma in a fragmented, somatic, sensoric and affective form of memory. Labeling the experience rather than simply re-experiencing negative emotions has been shown to inhibit limbic regions of the brain, which are overactive in PTSD. We developed the memory structuring intervention (MSI) that aims to shift trauma processing to an explicit, verbal and neocortical processing by teaching patients chronological organization, causality and verbal labeling of symptoms. Two randomized controlled single-blind studies tested the MSI with traffic accident victims. In Study 1 (N = 17) patients receiving the MSI reported significantly less frequent symptoms than controls three months later. In Study 2 (N = 29), women in the MSI reported less frequent symptoms than controls, while unexpectedly, the opposite was found for men. The MSI may prevent PTSD in women only.

1107 **misc**

Case Study of Neonaticide: An Integrative Literature Review

Lori Kalman-McCartney, University Behavioral Health Care, UMDNJ; Elias Vasquez, Rutgers University Newark

The phenomenon of newborn homicide, known as neonaticide, is examined through case study and an integrated review of related theory and research pertinent to understanding the contributory influence of extensive physical, emotional and sexual childhood abuse of a neurologically-impaired, cocaine-addicted, multiparous woman who was incarcerated for the fatal abandonment and neglect of her newborn son, after giving birth to him in a public latrine. It is imperative to understand the comprehensive nature that traumatic stress plays in women who commit crimes against motherhood, in order to ensure therapeutic psychotherapy treatments, not exclusive punishment. Failure to provide a comprehensive picture of a mother/perpetrator might lead to an inequitable delivery of justice, garner woefully inadequate intervention, risk substance sobriety and breach emotional empowerment because important aggravating and mitigating factors were not considered nor recognized. This paper/poster illustrates an association between traumatic childhood history, substance addiction as a mediator of intense internal states, and the crime of neonaticide. Implications to advanced practice nurses, psychotherapists and other patient-care providers are discussed.

1108 **misc**

Psychosocial Functioning Within Two Samples of MVA Survivors with PTSD

Eric Kuhn, University at Albany, State University of New York; Connie Veazey, University at Albany, State University of New York; Edward Blanchard, University at Albany, State University of New York; Edward Hickling, The Sage Colleges

Problems in the psychosocial functioning of traumatized individuals with posttraumatic stress disorder (PTSD) have consistently been reported in the research literature. However, there is a scarcity of studies that have examined the changes over time in the psychosocial functioning of individuals who have been traumatized. Furthermore, little is known about the different courses psychosocial functioning follow depending on PTSD diagnosis. In the present investigation, two samples of motor vehicle accident (MVA) survivors (an assessment-only and a treatment-seeking) were evaluated on psychosocial functioning using the semi-structured Longitudinal Interval Follow-up Evaluation (LIFE Base) interview. Four domains of psychosocial functioning were analyzed: relations with family, relations with friends, major role functioning, and recreation participation. Using repeated measure ANOVAs, it was found that across both samples, survivors diagnosed with PTSD showed lower levels of functioning across all psychosocial domains. In addition, follow-up test showed that survivors with PTSD evidenced a different pattern of changes in psychosocial functioning compared with survivors without PTSD. Specifically, survivors with PTSD, did not exhibit the amount of recovery in their psychosocial functioning as did MVA survivors without PTSD.

1109 **misc**

Is There a Marker for Stress Vulnerability?

Charles Morgan, National Center for PTSD/Yale University; Ann Rasmusson, National Center for PTSD/Yale University

Animal studies have provided evidence that baseline levels of plasma Neuropeptide-Y (NPY) are significantly reduced after repeated exposure to uncontrollable stress. We previously reported that baseline plasma NPY was significantly lower in combat veterans with PTSD but were unable to determine whether reductions were due to the presence of PTSD or due to a history of trauma. The current study addressed this issue by assessing history of trauma exposure, PTSD, and baseline plasma NPY in active duty 41 U.S. Military Special Operations personnel. Plasma NPY, norepinephrine (NE), epinephrine (EPI) were assessed one week prior to participation in combat diver qualification training. PTSD symptoms and history of traumatic event

exposure was assessed using the Impact of Event Scale and the Brief Trauma Questionnaire. Results showed that baseline plasma NPY, but not NE or EPI, was significantly and negatively associated with trauma history in individuals with a history of traumatic stress exposure. Reductions in baseline NPY may serve as a marker for individuals who, in the future, may be at risk for the development of PTSD or stress related difficulties.

1110 **misc**

Social Support, Fear of Intimacy, and Posttraumatic Growth

Christine Pierce, Eastern Washington University; Kelsey Benson, Eastern Washington University; Todd Johnson, Eastern Washington University; Basma Fouad, Eastern Washington University; Brook Graham, Eastern Washington University; Malea Wright, Eastern Washington University; Shawn Pattison, Eastern Washington University; Russell Kolts, Eastern Washington University

Traditionally, research in traumatic stress has focused upon PTSD and other negative consequences of traumatic experiences. Recently, more interest has been shown in the idea that trauma may also result in some positive personal consequences, referred to as posttraumatic growth. While a number of studies have examined the role of social support and interpersonal relationships in mediating the negative effects of traumatic experiences, there is a need for research examining the role of social support and intimate relationships in relation to posttraumatic growth. It has been assumed that there is a positive relationship between social support and the experience of growth following stressful events, but empirical support for this assumption is needed. The current research describes relationships between measures of perceived social support, fears of intimacy, and posttraumatic growth in a sample of trauma survivors. Additionally, findings are presented regarding the ability of measures of social support and intimacy to predict both positive and negative (PTSD) responses to trauma.

1111 **Withdrawn**