President’s Column
Marylène Cloitre, Ph.D.
President

The recent earthquake in Japan turns our attention to our colleagues at the Japanese Society for Traumatic Stress Studies (JSTSS) and the people of Japan and of neighboring affected countries. We extend our support to them in the very difficult days and months of rescue, response and recovery. We know that there is remarkable capacity for effective response and resilience in the face of adversity. We wish the best for them.

Planning for ISTSS’s 27th Annual Meeting in Baltimore on November 3-5, 2011, is proceeding at a good pace. The conference theme is “Social Bonds and Trauma Through the Life Span” and it is bringing in an abundance of panel, symposia and poster submissions. The theme of the conference lends itself to diverse topics, not the least of which is the benefit of social bonds among trauma professionals!

Accordingly, we are planning various events to stimulate intellectual inquiry, to lift spirits and to bring about a sense of connection, support and collegiality among our members.

As part of its newly formed strategic goals, ISTSS is giving serious attention to making the society a “professional home” to its members. This includes being responsive to the diversity among our members regarding their professional responsibilities, aspirations for our field and personal preferences.

This is being backed up with a commitment of resources to routinely query our members about their needs and preferences regarding the activities of the society. When you receive a survey from the society, please do fill it out. It really is one of the only ways we can know about what members think and want. We will keep surveys to a minimum and are carefully planning them so that they are not overwhelming or too great a bother.

If you have particular questions or topics you think the society should query, please contact me via email. I will make sure to send it on to the Data Infrastructure Task Force that is currently developing recommendations about how we should proceed regarding our member database, routine surveys and mechanisms for moving from the data to an action plan!

My best wishes to you all as we transition from one season to the next, wherever you are on the globe!
ISTSS Submits Statement to the International Criminal Court

ISTSS has been a leading member of the Victims’ Rights Working Group of the Coalition for the International Criminal Court (CICC). On behalf of the ISTSS, Past President and Senior Representative to the United Nations, Dr. Yael Danieli submitted the statement below to the Ninth Assembly of State Parties (ASP) of the International Criminal Court (ICC) in December 2010.

The International Society for Traumatic Stress Studies (ISTSS) is an interdisciplinary professional organization that promotes advancement and exchange of knowledge about traumatic stress and its victims, and their optimal care.

The ISTSS firmly holds that all disciplines that interface with victims should do their utmost to be healing rather than retraumatizing to victims in their interactions with them. This is all the more true for victims of massive trauma and crimes such as the ones under the jurisdiction of the ICC. Justice professionals are primary in this regard through their commitment to ensuring that, in their interactions with the Court and other mechanisms of justice, victims will experience justice as reparative rather than harmful to them. In truth, if implemented optimally, the Statute and Rules of Procedures and Evidence of the ICC contain many of the elements for reparative justice to occur. But the ongoing commitment to their implementation remains the major challenge.

Reparative justice (1) insists that every step throughout the justice experience -- from the first moment of encounter of the Court with a potential witness through the follow-up of witnesses after their return home to the aftermath of the completion of the case (2) -- presents an opportunity for redress and healing, a risk of missing or neglecting the opportunity for healing victims and reintegrating them into their communities and societies, or, worse, causing revictimization and retraumatization. Thus, while restitution, rehabilitation or compensation may only come after the process has concluded, there are still opportunities along the way.

The ICC should maintain reparative justice as an overall principle for both its policies and for their implementing activities. This applies both to the Court's relationship with and obligations toward victims/witnesses, to all who interface with them, including their families and [affected] communities as a whole -- in their unique cultural context, to all Member States, to the Court's own community of all judicial workers, and to NGOs and others who mediate between, or represent, victims (communities) and/to the Court.

Among others, globally this implies that states that ratified the Rome Statute should adopt and implement all victim/witnesses-related provisions of the Statute in their national legislation (3).

It also implies full multidisciplinary (for example, psychology and mental health, socio-cultural anthropology) involvement in the justice process (i.e., maintain at least one permanent full-time psychologist position at the ICC).

It must be also emphasized that the Court should take into account the cultural traditions and sensitivities and the physical and social needs of victims and witnesses particularly when they are required to be in The Hague or outside their country of origin to take part in Court proceedings (4).

Last but not least, the commitment to reparative justice has to include the assurance of the physical and psychological welfare of all actors involved, including the Court’s own community of all judicial workers, to be ongoing and budgeted as such.

To learn more about the wider context of this statement, the ASP meeting in general and the CICC, you can find the full report on the 9th session of the ASP to the Rome Statute of the ICC here.

References
(2) As acknowledged by Supreme Court Justice Albie Sachs of South Africa, “Justice is also the process, not only in the outcome.” See Justice Albie Sachs, the Raul Wallenberg Memorial Lecture at the International Human Rights Symposium to educate leaders of tomorrow. Osgoode Hall Law School, York University, Toronto, Canada (17 January 2005).
(3) Resolution on the Impact of the Rome Statutes on Victims and Affected Communities, para 1. (“encourages states to consider implementing those provisions of the Rome Statutes relevant to victim/witnesses, where applicable, through national legislation or appropriate measures”)
(4) See Rule 18 (Responsibilities of the [Victims and Witnesses] Unit) (d) “Ensure training of its staff with respect to victims’ and witnesses’ security, integrity and dignity, including matters related to gender and cultural sensitivity.” Rule 19 Expertise in the Unite (e) Gender and cultural diversity.
Do you know of ISTSS members who have been recognized for significant achievements?

Please send announcements to Editor Anne DePrince, adeprinc@du.edu, for the Members on the Move feature.

Members on the Move

ISTSS would like to congratulate long time member, past president and Robert S. Laufer Award recipient Dr. Sandy McFarlane who was appointed Officer of the Order of Australia in Australia Day Honours List. The Officer of the Order of Australia is awarded for distinguished service of a high degree to Australia or humanity at large. Read more about this honor at http://www.adelaide.edu.au/news/print42981.html.

ISTSS would also like to congratulate members to whom the American Psychological Association, Division 56, bestowed the following awards:

- Outstanding Contributions to Practice in Trauma Psychology: Barbara Rothbaum & JoAnn Difede
- Outstanding Contributions to the Science of Trauma Psychology: John Briere
- Outstanding Service to the Field of Trauma Psychology: Judith Armstrong
- Lifetime Achievement in the Field of Trauma Psychology: Edna Foa
- Outstanding Dissertation in the Field of Trauma Psychology: Erika Wolf

ISTSS 27th Annual Meeting – Travel Grant Program

A limited number of travel grants are available each year to support conference attendees coming from developing countries and experiencing financial hardship with fees or travel costs. The travel grants are supported by voluntary contributions from ISTSS members. The application form should include a statement of need that explains the impact or importance of attending this meeting, a current curriculum vitae, estimate of expenses (in U.S. dollars) to travel to the ISTSS 27th Annual Meeting in Baltimore, Maryland, USA.

Apply Now!

Application deadline: June 17, 2011

Applicants selected to receive an ISTSS Travel Grant will be notified in writing by August 3, 2011.
ISTSS Releases New Strategic Plan

ISTSS is pleased to release its new Strategic Plan. This plan has been in the works for more than two years and in that time, the association clarified the vision and mission for the organization and identified six major goals for our society including:

**Goal #1: Professional Community**
ISTSS inspires innovation in the various activities of traumatic stress professionals. We provide a unique forum for respectful exchange among a diverse membership.

**Goal #2: Dissemination and Collaboration**
ISTSS is a diverse and inclusive organization that emphasizes collaboration in the exchange of knowledge and in the development, dissemination and implementation of evidence based and emerging best practices for all different types of trauma and populations.

**Goal #3: Societal Impact**
ISTSS contributes to the health and resilience of people and communities in the face of traumatic events.

**Goal #4: Promotion of Science and Clinical Practice**
ISTSS engages its members in advancing traumatic stress science and uses research to improve prevention, and clinical care, promote resilience, and inform public education and public policy.

**Goal #5: Global Relationships**
The ISTSS operates within a new business model that is responsive to issues, members and stakeholders from all nations.

**Goal #6: Organizational Excellence**
As a scientific and clinical society, the ISTSS operates within a model that is inclusive, transparent and sustainable.

Go the ISTSS website to review the final plan and watch the video with Past President Ueli Schnyder and current President Marylène Cloitre further explaining these six goals and the related strategies to accomplish these goals. We look forward to continuing to make ISTSS the premier home for professionals in the field of traumatic stress studies.

Introducing the ISTSS Webinar Series
The leading professional society for traumatic stress is now offering Webinars. Join us in April for:

**PTSD From Combat Trauma: Frequent Issues That Emerge in Cognitive Therapy**

Thursday, April 14, 2011 – 1:00–2:30 p.m. EST
Presenter: Patricia A. Resick, Ph.D.

Sign up for this Webinar to learn how to:

- Evaluate issues related to war and being in the military and how they may affect recovery from traumatic events
- Recognize frequently observed differences between combat traumas and other types of traumatic events
- Incorporate military sexual trauma issues in therapy with patients with combat-related PTSD

*Earn 1.5 continuing education credits without leaving your desk!*

ISTSS member rate: $59 • Nonmember rate: $79

Your registration fee includes one telephone connection, one set of materials and one evaluation for continuing education credits. An unlimited number of people can listen in on the Webinar with you and purchase continuing education credits for $25 each. Webinars combine the educational experience of a live conference session with the convenience of learning at your desk.

Register today!
Disclosures of Trauma: How Friends and Family Can Respond More Supportively

By Melissa Ming Foynes, Ph.D.
National Center for PTSD at VA Boston Healthcare System

Trauma survivors often tell others about their experiences in order to express themselves, clarify needs, make sense of what happened, seek validation or support or gain information or tangible support (e.g., Ahrens et al., 2007). Although disclosure can facilitate recovery and adjustment following difficult life events (e.g., Coker et al., 2002), it is not the act of disclosure in and of itself that is the most helpful for recovery. Rather, these benefits are largely dependent upon the quality of the responses received (e.g., Ahrens et al., 2007; Coker et al., 2002; Figueiredo et al., 2004; Lepore et al., 1996). When people do not respond supportively, the psychological effects are worse than if the information is not shared (Figueiredo et al., 2004; Lepore et al., 1996). Negative reactions to first disclosures may also perpetuate skepticism about the effectiveness of future disclosures and increase feelings of self-blame and self-doubt (Ahrens et al., 2006). In turn, survivors may choose to stop disclosing, which may not only prevent harm from unsupportive responses but may also prevent the positive benefits associated with supportive responses.

Through various initiatives, recently mental and physical health care providers have been educated in asking about trauma and responding more empathically to disclosures of trauma (e.g., McColgan et al., 2010; Rhodes, Frankel, Levinthal, Prenoveau, Bailey, & Levinson, 2007). Although these efforts are an important first step, additional work with the general public is needed.

Anywhere from 60 to 79 percent of trauma survivors’ initial confidants are friends and family members (Kogan, 2004; Ahrens et al., 2007). In fact, survivors are more likely to make a first disclosure of trauma to friends and family than to a mental health or social service professional (e.g., Coker et al., 2002; Ullman & Filipas, 2001). Unfortunately, many non-professionals have not received education or training in responding supportively to disclosure and are not naturally able to provide support in a helpful way. In a recent study evaluating the effectiveness of skills training in improving empathic responding in lay people, approximately two-thirds of participants reported low to moderate levels of prior exposure to this kind of information (Foynes & Freyd, 2011).

Therapists and other professionals who have been trained in responding supportively to disclosures can also serve a role in this psychoeducational process. For instance, if therapists are able to identify and operationalize helpful and unhelpful responses, they can facilitate the process of educating lay people in being more supportive and provide guidance and support to trauma survivors in session when they share that others have responded negatively to their disclosures. However, this work must be done carefully. Prior medical research suggests that physicians’ increased levels of training in communicating with patients and greater self-confidence in empathic abilities are unrelated to patients’ ratings of physicians’ empathic responses (Pollack et al., 2007). Thus, it is essential not only to gain insight into the discloser’s perspective, rather than assuming that certain responses are helpful (Ahrens et al., 2007), but also to provide professionals and non-professionals with training in enhancing supportive responses that translates into actual behavioral changes that can be observed by survivors.

Only a few studies to date have examined either skills-training interventions aimed at enhancing supportive responding or components of broader interventions that are focused on improving these skills (e.g., Ancel, 2006; Cordova, Ruzeck, Benoit, & Brunet, 2003; Hansen, Resnick & Galea, 2002; Hatcher, Nadeau, Walsh, Reynolds, Galea & Marz, 1994; Taylor, Cook, Green, & Rogers, 2001). Common methodological limitations include small sample sizes, lack of control groups, inattention to random assignment, inclusion of descriptive data rather than inferential statistics that empirically assess the interventions’ effectiveness, and overreliance on self-report data. Only one of the aforementioned
studies utilized the perspective of someone other than the participant in assessing the intervention’s effectiveness (Taylor et al., 2001) and this study examined professional relationships (e.g., academic administrators in supervisory roles). Of the two studies examining skills enhancement in non-professionals (Hatcher et al., 1994; Cordova et al., 2003), only one incorporated family members and friends into the intervention; furthermore, that intervention was not tested empirically (Cordova et al., 2003).

In an attempt to eliminate some of the methodological confounds associated with past research (e.g., retrospective report bias and artificiality of disclosure to researchers), two recent studies were conducted (with Institutional Review Board approval) examining disclosures of stressful life experiences, as they occurred, in the context of real relationships (Foynes & Freyd, under review; Foynes & Freyd, 2011). These studies utilized observational and experimental designs that integrated the perceptions of disclosers, listeners, and trained coders who observed the disclosure interactions via videotape. In addition, disclosers’ perspectives were used to assess the impact of listeners’ nonverbal and verbal behavior, operationalize supportive responses to disclosure, and evaluate the effectiveness of a brief set of skills-training materials (STMs) in enhancing supportive responses to disclosures of mistreatment (STMs; Foyes & Freyd, 2010; STMs can be found at http://dynamic.uoregon.edu/ jlf/disclosure/ and may be copied, distributed, or otherwise reused or modified by first contacting the author listed on the website for reprint permission.) These STMs were developed based on findings from prior research and were shown to significantly improve supportive responses compared to a control group of participants that studied materials describing healthy lifestyle improvements (see Foyes & Freyd, 2011 for a complete list of the research used to inform these materials). The STMs described nonverbal and verbal ways of supportively responding to disclosure in three domains: body language, content/structure of verbal responses, and manner of responding. For each suggestion, examples of statements or behaviors were given in parentheses for illustrative purposes and to guide participants’ learning.

First, suggestions were given regarding attentive body language (e.g., facial expressions, posture, eye contact) based on nonverbal indices of support (e.g., Foyes and Freyd, under review). This was chosen as an emphasis area given prior research indicating that nonverbal behavior is central to conveying empathy. Prior research suggests that 45 percent of the variance in empathy is accounted for by nonverbal behavior, while 22 percent is accounted for by verbal behavior and 33 percent by the interaction between verbal and nonverbal behavior (Haase & Tepper, 1972).

Second, verbal skills meant to encourage the speaker to continue talking were also emphasized. Examples of such skills included refraining from changing the topic, reflecting back the emotion being described, allowing for silence, using brief encouraging statements to demonstrate active listening and asking open-ended questions. Research with oncology patients suggests that when oncologists respond to indirect or direct expressions of patient emotion with “continuers” or statements that encourage (rather than discourage) continued disclosure and expression of emotion, patients not only have less anxiety and depression but also are more satisfied with and more likely to adhere to treatment (Pollak et al., 2007). Examples of these “continuers” include labeling emotion, empathizing with and validating emotion, showing respect and support and encouraging patients to elaborate on their emotional experience (Pollak et al., 2007, p. 5749).

Finally, participants were encouraged to respond to the disclosure of mistreatment in a supportive manner. Suggestions included refraining from providing reassurance in a way that could be perceived as minimizing, striving to be nonjudgmental, validating emotions in a genuine tone, pointing out the person’s strengths, abstaining from offering unsolicited advice, and focusing on the discloser’s experience rather than the listener’s. One situation in which this
information may be particularly relevant is the use of self-disclosure as a form of support. Prior research examining peer support for breast cancer survivors suggests that self-disclosure is typically perceived as helpful only if it occurs in the context of high empathy, such that self-disclosure in and of itself is not sufficient for others to feel supported (Pistrang, Solomons, & Barker, 1999). In addition, it is likely that some forms of self-disclosure may help convey empathy, whereas other forms may be perceived as dismissive, suggest a lack of understanding, or even hinder communication. Expression of “too much” empathy may also be unhelpful in so far as disclosers may feel worried about the listeners’ well-being or felt the need to comfort listeners at the expense of meeting their own needs for support (Ahrens, 2006). These findings emphasize the need to acknowledge individual differences in perceptions and definitions of helping behavior and to take overall context of support into account (e.g., pre-existing relationship, nature of disclosure, relational and cultural norms for self-disclosure) when deciding how to be supportive.

While some materials for enhancing supportive responding exist in the community (e.g., New Jersey Self-Help Group Clearinghouse, n.d.), to the best of our knowledge none have been evaluated empirically. Since the recommendations provided above have preliminary empirical support, they can serve as an initial step toward educating the general public in responding more supportively to disclosures of trauma. These STMs are meant to provide guidance that will help make the task of supportive responding more attainable and address assumptions about what is helpful. Although it does take energy and forethought to be compassionate, convey support, and listen well, it is our hope that increased awareness of the importance of supportive responding can facilitate the creation of a more supportive environment for survivors.

References


Foynes, M. M., & Freyd, J. J. (under review). Evaluating responses to the disclosure of stressful life experiences as they occur in real time.


Disclosures of Trauma continued from page 7


Trauma and World Literature: *A Soldier of the Great War*, by Mark Helprin

Submitted by Eric Aronson
Chelmsford, MA

The following two passages are from former infantryman Mark Helprin’s monumental novel, *A Soldier of the Great War* (Harcourt, 1991).

In the first passage (pp. 809), a veteran reflects on the loss of his own son in battle:

“My son was given to me full blown, whole, as if from nothing, the most beautiful child I had ever seen, my own. At first I despaired that he should live as I had, and then, eventually, I was resigned to it, as I had to be, for he never came back. He is the reason that I exhaust myself with all these questions, and cannot die in peace. He and the others are the reason I have vainly fought for an opening into another world. I cannot trade that unlikely chance for happiness in this life, because I remember too well those who have fallen. I keep myself on edge -- though, all these years, I have done it indirectly, and saved immediate recollection for the very last, both to honor it and to preserve it forever.”

In the second passage (pp. 852), a veteran advises a young man on how he can honor those who perished in the war:

“It’s simple. You can do something just, and that is to remember them. Remember them. To think of them in their flesh, not as abstractions. To make no generalizations of war or peace that overrides their souls. To draw no lessons of history on their behalf. Their history is over. Remember them, just remember them -- in their millions - - for they were not history, they were only men, women and children. Recall them, if you can, with affection, and recall them, if you can, with love. That is all you need to do in regard to them, and all they ask.”

Reference
StressPoints

Media Matters: Journalism Trauma Training and Research Expands in International Classrooms

By Meg Spratt
University of Washington

Efforts to nurture collaborative relationships between mental health experts, survivors of stress and trauma reactions and media professionals have become increasing apparent in journalism education. Innovative projects designed to study and teach about trauma can now be found in a variety of international academic settings. Training ranges from updates, to one of the original journalism and trauma training programs at University of Washington, to a creative “Dealing with Death Day” for media students at the University of South Australia.

I asked several journalism instructors how they are using trauma education and psychological concepts as they work with students and colleagues. Here’s what they said:

Barbara Hans, University of Hamburg, Germany, Masters in Journalism and Communication Studies:

In our program, we offered a unit on media ethics, which dealt with the dilemmas of the profession – but did not teach students how to act in difficult situations, how to practically solve the dilemmas. They were lacking a toolkit for demanding situations. In establishing a unit on “Reporting Catastrophes,” I incorporate both into the curriculum: knowledge of trauma and its psychological and physiological backgrounds, and questions of a journalist’s daily life. From my perspective, such courses must have an interdisciplinary approach. Psychological knowledge is crucial in understanding and dealing with trauma. Support is offered by members of faculty of the department of psychology and experts dealing in different fields – such as a trauma-expert of the German Army. Media education has to deal with the special needs of the sources: What kind of person am I interviewing? Why does a person react in a certain way? How do I, as a journalist, deal with such situations? Psychological expertise helps students gain an understanding of what is going on – it helps them to protect the interviewees and themselves. Incorporating psychological concepts enables my students to reflect on their work and gain a certain control. It helps them to prepare for exceptional circumstances.

Dan Williams, Lyndon State College, Vermont, Department of English:

At Lyndon State College, we call it the Disaster Class. For the past few years, Assistant Professor of Psychology Peggy Sherrer and I have joined forces to teach trauma to my budding journalists and her psychology and human services majors. The one-credit class culminates in a full-scale disaster exercise. So far, we’ve put on a dorm fire, a shooting and a health crisis. Despite 25 years as a journalist, I wouldn’t dare teach the course solo. Professor Sherrer brings a scholarly expertise in psychological trauma to the class that I cannot match. My students learn to recognize traumatic stress and interview individuals who have experienced trauma. Professor Sherrer’s students come away with a deeper understanding for the role and relevance of journalists. See http://dartcenter.org/content/practicing-disaster for more information about the program.

Meg Moritz, University of Colorado at Boulder, School of Journalism and Mass Communication:

My research area is crisis reporting and I’ve been particularly interested in the coverage of school shootings. In 2009, I began collaborating with Klas Backholm, a young scholar who is completing his doctorate in psychology and who is in charge of the Dart Centre program in Finland. We have combined data derived from our first person interviews with both Finnish and U.S. journalists to compare media’s treatment of victims in school shooting cases. In Finland, a small country with strong free press and public service broadcasting traditions, the very definition of victim differs from that in the U.S. system. Journalists share a strong commitment to protect the privacy not only of those who were injured but also of witnesses to crimes.
In my classes, I try to emphasize the fact that cultural norms and values impact reporting practices. Students need to understand that U.S. practices are not universal and indeed other cultures have markedly different practices and sensitivities to trauma reporting.

**Ian Richards, University of South Australia, School of Communication:**

Our program for “Dealing with Death Day” incorporates presentations from a range of professionals who deal with death, dying and bereavement as a regular part of their working lives. Our experience over many years is that the presentations with the greatest impact on students are those from experienced journalists, and those from grief counselors. The journalists can inform students about the practical realities in the field, and the issues raised by these realities, but they are not trained to explain, interpret and understand the psychological implications. Qualified counselors can introduce students to an understanding of these implications. This understanding is vital because covering traumatic events can have psychological effects for journalists, which they simply fail to understand. While it is impossible to prevent such effects from occurring, training which draws on both the field of psychology and the professional practice of journalism can significantly reduce their impact.

**Joanne Silberner, NPR correspondent and Artist in Residence at University of Washington's Department of Communication:**

I'm new to teaching, and during Winter Term 2011 I co-taught Advanced Reporting with Roger Simpson (founding director of the Dart Center for Journalism and Trauma and winner of the 2008 ISTSS Frank Ochberg Award for Media and Trauma Study). Roger pioneered journalism and trauma training in the classroom, focusing on both stress reactions in interviewees, and the effect that trauma has on the journalists themselves. He has actors come into class and play the roles of various people involved in a fatal fire. Students interview the actors, and write stories and discuss the effects on themselves of those stories.

This year, I contacted Jennifer Stuber, a University of Washington assistant professor in sociology and founder of a statewide coalition to improve mental health reporting (see [http://depts.washington.edu/mhreport/](http://depts.washington.edu/mhreport/)) about doing a unit on mental illness. She came into class and gave a terrific session on good and bad media coverage of mental illness, and drew the students out into a discussion. And she introduced me to a member of the mental health advocacy community, who was able to find four people with diagnoses who were willing to come into class and be interviewed by groups of four students. The students got the experience of using some of the lessons Jenn taught them, and the people who came in (all of whom had media training) got experience in dealing with the media. Everybody learned something.

**Roger Simpson, Founding Director of the Dart Center and Dart Professor at University of Washington:**

Our use of actors in training for interviews goes back 17 years, and continues to be influenced by trauma science. We are now adding more knowledge about emotions and mental health to our teaching about both interviewing and self-care in difficult situations, drawing from the rapidly evolving neuroscience. This work bridges our focus on journalists' mental health and our collaboration with the social work discipline to help journalists report in ways that attack social stigma around mental illness.

See [http://dartcenter.org/content/simulated-trauma-0](http://dartcenter.org/content/simulated-trauma-0) for more information about the University of Washington trauma training program.
It is estimated that 18.5 percent of the 1.64 million U.S. troops deployed to Iraq and Afghanistan since October of 2001 have Posttraumatic Stress Disorder (PTSD) and/or major depression (Schell & Marshall, 2008). In comparison, rates of PTSD in active duty Canadian Forces members appear to be lower. In one study they are reported as 2.8 percent for current PTSD and 7.2 percent for lifetime PTSD (Richardson, Thompson, Boswall & Jetly, 2010). The reasons for the varied rates of PTSD/depression between the American and Canadian forces are not clear.

When in a combat or war zone almost everyone the soldier sees is a potential enemy, even civilians. Is that really a harmless pregnant civilian walking towards him, or is it a suicide bomber with an Improvised Explosive Device who is going to blow them both up when in close enough proximity? These military members walk around in a constant state of high adrenalin, always hyper vigilant for danger. They cannot easily distinguish threat from non-threat under these conditions, and this may persist. This difficulty with stimulus discrimination — distinguishing between a threatening and a non-threatening stimulus — is experienced by persons who suffer from PTSD from various sources, and is not limited to military veterans.

**Emotional Memory and the Fear Structure**

Edna Foa and colleagues (2007) apply conditioning theory concepts to explain PTSD symptoms, where trauma memory involves a “fear structure” that includes representations of stimuli that were present during the actual trauma, the individual’s physiological and behavioral responses that occurred during the trauma and the meanings that the individual associates with these stimuli and responses. These associations between stimulus, response and meaning, may be realistic or unrealistic.

Over time, stimulus generalization may result in a large number of innocuous stimuli becoming associated with danger, leading to extensive Fight/Flight/Freeze (FFF) reactions to, and subsequent avoidance of, a large number of non-dangerous situations. According to Foa et al.’s model, recovery involves repeated activation of the trauma memory (emotional engagement) and the incorporation of corrective information about the world and the self. Effective processing changes the unrealistic associations, not the realistic ones, and erroneous cognitions in PTSD are corrected (Foa, Hembree & Rothbaum, 2007).

**Neurobiological Correlates of PTSD and the FFF Reflex**

PTSD correlates with increased amygdala activity as well as activity of the Prefrontal Cortex (PFC) (Dickie, Akerib, Brunet & Armony, 2010). According to DeBellis (2010) a “fear detector circuit” is contained within the amygdala and limbic structures of the brain. These structures underlie emotional memory, including traumatic memory (Bremner, et al., 2010). The PFC modulates the physiological and emotional response of the individual to stressful stimuli (Bremner, Vermetten & Lanius, 2010), where the medial portion of the PFC normally inhibits activation of the fear circuit; however, severe stress can turn off this inhibition (DeBellis, 2010), resulting in hyper arousal and impaired behavior.

Functional MRI brain scans show that, when a person is re-experiencing a traumatic event, such as when having a flashback or when hearing a script of their own traumatic experiences, there is an increased activation of the amygdala and the PFC (Hopper, Frewen, van der Kolk & Lanius, 2007; Lanius, Williamson & Densmore, 2001). Moreover, levels of amygdala activity may relate to treatment outcome. Individuals who showed an increase in amygdala activity at pre-treatment, had a poorer response to an eight session cognitive behavioral therapy (CBT) treatment protocol for PTSD than those without increased arousal responses.
amygdala reactivity at baseline (Felmingham, 2010), and heightened amygdala activity appears to be directly associated with trauma exposure (Van Wingen, Geuze, Vermetten & Fernandez, 2010).

**Postulated Relationship Between Neurobiology and Behavior**

When presentation of a perceived stressor occurs repeatedly in situations that are not threatening the fear response may be sensitized or desensitization may occur, and the fear response is extinguished. It is postulated that, when there is dysfunction of the inhibitory aspects of the PFC, there is a concomitant failure of extinction to perceived stressors (Bremner, et al., 2010). When the PFC’s inhibitory function is not effective, it may result in reflexive, impulsive and aggressive behaviors to perceived threats (van der Kolk & d’Andrea, 2010). According to DeBellis (2010) CBT probably functions to strengthen the inhibitory connections of the PFC to the amygdala, thereby lessening amygdala activity and thus, hyper arousal. However, even when desensitization has occurred, given the right conditions fear can be rapidly reinstated (Bremner et al., 2010).

This may explain why, even when treatment for trauma has been successful, the individual can become temporarily vulnerable to symptom reactivation under specific circumstances, such as situations that are highly similar to the original traumatic event.

As individuals are experiencing the fear and/or other emotions that were associated with the original traumatic event, they may (in varying degrees of severity), have difficulty putting the feelings into the appropriate context, and may make source attribution errors. There is a failure at stimulus discrimination and innocuous stimuli may be misperceived as threatening stimuli. Some persons may become paralyzed with terror when they misperceive an innocuous threat as a real threat, others may run away in fear and yet others may become aggressive.

**Practical Focus: Preventing the Return of Fear?**

One of the problems with extinction of the fear response is that under certain conditions, such as an increase in stress levels, the fear may return (Schiller, Monfils, Raio, Johnson, Ledoux & Phelps, 2010). Traditional theory held that memory is consolidated once and is permanent, and when retrieved, the original memory gets reconsolidated as that permanent trace. However, recent research has shown that when stored information is retrieved it can be rendered labile or changeable. The reconsolidation hypothesis is that memories are consolidated each time they are retrieved and reflect our last retrieval, rather than an accurate depiction of the original event (Schiller et al., 2010). Thus reconsolidation is viewed as an adaptive process in which new information is incorporated into old memories, possibly changing fear memories permanently. Schiller et al. (2010) conducted a study in which an old fear memory was reactivated and during a reconsolidation window, extinction trials were carried out. This prevented the spontaneous recovery or reinstatement of fear. These findings persisted when tested a year later and were specific to the targeted fear memory only, but not to related fear memories.

In other research summarized by Pitman (2010), administration of the beta-blocker propranolol during memory reactivation prevented elicitation of the fear response elicited by the previously conditioned stimulus; however, the declarative memory of the trauma survived. This suggests that only the fear component of the memory was erased or blocked with administration of the beta-blocker. In another PTSD study, the administration of propranolol at the time of traumatic memory reactivation resulted in a diminished emotional reaction to the memory as evidenced by smaller psychophysiological responses during subsequent script-driven imagery. Although these findings are promising, blocking effects of beta-blockers and other pharmacological agents are not observed for all subjects (Schiller et al., 2010). The extinction trial during reconsolidation in the Schiller study, however, was effective for all subjects in the study and non-invasive extinction techniques were effective during a specific “reconsolidation window,” but not outside of this window. This suggests there is a specific period of time during memory activation in which memories are more amenable to reconsolidation.
Using a different approach, researchers at the Trauma Centre in Boston reported some initial findings from a Randomized Clinical Trial using EEG neurofeedback combined with individual therapy. They found significant reductions in PTSD, avoidance, numbing and affect dysregulation symptoms associated with treatment (Gapen, 2010).

Should the reconsolidation results in the Schiller et al. study be replicated, there are useful implications for treatment. If we view the results of the above studies in terms of the theory of Foa and colleagues, the idea of “corrective information” being incorporated into treatment sessions provides a useful model for treating clients with PTSD. That is, if there is an optimal “reconsolidation window” during memory reactivation in which memories become labile, malleable and more amenable to extinction, various interventions may function as a form of corrective information. Corrective information in Foa’s model largely refers to giving new meanings to the associations, so that non-threatening stimuli are accurately processed as non-threatening, thereby reducing the fear response by way of cognitive mediation; however, this may be easily disrupted by subsequent trauma exposure or even less severe stressors. Recent research suggests that, when the timing of interventions occurs at an optimal time during memory reactivation, traumatic memory may be permanently extinguished. Although largely speculative at this time, it is possible that beta-blockers, formal extinction trials, neurofeedback, and other interventions at the right time may have the effect of preventing the reconsolidation of the traumatic nature of traumatic memory.

References
Upcoming Events

May 29 - June 1, 2011
Violence Against Women - International Conference
Montréal, Quebec, Canada

June 2 - 4, 2011
Canadian Psychological Association 72nd Annual Convention
Toronto, Ontario, Canada

June 2 - 5, 2011
12th European Conference on Traumatic Stress, Human Rights & Psychotraumatology
Vienna, Austria

September 11 - 14, 2011
International Conference on Violence, Abuse and Trauma
San Diego, California, USA

November 3 - 5, 2011
ISTSS 27th Annual Meeting with Pre-Meeting Institutes Nov. 2
Baltimore Marriott Waterfront
Baltimore, Maryland, USA

June 11 - 17, 2012
Canadian Psychological Association 73rd Annual Convention
Halifax, Nova Scotia, Canada

November 1 - 3, 2012
ISTSS 28th Annual Meeting with Pre-Meeting Institutes Oct. 31
JW Marriott Los Angeles at L.A. LIVE
Los Angeles, California, USA

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