

## **Review of Research on Post-Traumatic Stress and Current Treatments**

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On May 6<sup>th</sup>, 2005, approximately 20 SFPA members met at Il Fornaio Restaurant in downtown San Francisco. As we ate a delicious dinner, Victoria Beckner, Ph.D., gave an informal review of the latest research on posttraumatic stress disorder (PTSD) and current clinical treatments.

Dr. Beckner's background includes work at the University of Texas in Austin on cognitive-behavioral therapy (CBT) for anxiety, treatment outcome research, and the neurobiology of stress and memory. In her present work at University of California-San Francisco and the Veteran's Administration, she focuses on PTSD, the neuroendocrinology of stress and psychotherapy.

She has a passionate interest in studying how psychological events generate biological changes. PTSD symptoms are an example of negative effects of this interactive system; successful psychotherapy illustrates the potential for positive effects. Effective treatments extinguish conditioned responses and facilitate emotional processing so that new neurophysiological networks can develop and be strengthened.

Dr. Beckner reviewed biological responses to trauma, including activation of the hypothalamic-pituitary-adrenal (HPA) axis, release of stress hormones, hyperarousal of the limbic system, and decreased activity of the frontal lobes. As a result, the brain is flooded by emotional stimuli that are inadequately processed and organized. Normally, the limbic system is modulated by the frontal lobes, so that experiences are encoded as a coherent whole. During

trauma, memories are encoded as disorganized fragments that dysregulate the emotional context of intense shock and fear. The amygdala also becomes hypersensitive to trauma-associated stimuli and cues that trigger repetitive recall of these fragmented memories and conditioned fear responses.

While most interventions have focused on treating chronic PTSD, another approach is to intervene soon after the trauma in order to prevent this cascade of neurophysiological changes that ultimately lead to PTSD. Unfortunately, there is little research on early interventions, and few psychologists engage in this type of treatment.

Debriefing has gained some prominence as an early intervention technique, however, research shows mixed results. Dr. Beckner reported that research with survivors tested in emergency rooms in the immediate aftermath of trauma showed that those with hearts beating faster than 90 beats per minute were more likely to develop PTSD than those whose heart rates were slower. Debriefing, with its focus on discussing the traumatic experience within hours or days of the trauma, may maintain or enhance this hyperaroused biological state. The alternative is to provide psychoeducation and self-soothing techniques. The intent is to calm the person rather than encourage trauma recall which would stimulate the production of stress hormones and increase activation of biological systems that trigger and maintain PTSD symptoms. Other predictors of PTSD include pre-existing anxiety or depression, and peritraumatic anxiety or dissociation. Over time, maladaptive coping methods (e.g. avoidance, numbing, withdrawal) also become part of the symptom profile.

Dr. Beckner asserted that the results of most studies support the effectiveness of therapy that is conducted several weeks or months after the traumatic event, usually 8-12 sessions including psychoeducation, relaxation and grounding skills, imaginal exposure, and cognitive therapy. For PTSD caused by rape, Edna Foa has validated the effectiveness of prolonged exposure therapy, which includes imaginal exposure, *in vivo* exposure, and breathing retraining.

A lively discussion ensued over the notion that empirically-validated treatments are the only valid treatments. Ilene Serlin, Ph.D. pointed out that the way outcomes are typically measured in experimental studies (e.g. quantitative symptom checklists) fails to assess critical variables such as the client's subjective experience of change and the therapist's clinical judgment. Dr. Beckner is very interested in expanding what treatments are studied and what outcome variables are measured.

A psychologist working at San Francisco General Hospital noted that experimental studies typically focus on participants who have had only one discrete trauma and exclude those with comorbid conditions. Therefore, empirically-validated treatments have less validity for populations with comorbid psychological and physical symptoms and multiple or cumulative traumas over the course of their lives.

Robert Badame, Ph.D. urged others to expand the traditional definition of trauma beyond combat, rape, major accidents, natural disasters, and physical violence. He suggested that conditions such as severe chronic illness and disability, extreme poverty, emotional neglect or abuse, and social isolation may have as strong an impact and cause similar symptoms.

Connie Hills, Ph.D. emphasized the scientific value of validating any psychotherapy modality. Dr. Hills is hopeful that the more validation psychotherapy has in the scientific community, the more funding may be allocated to clinical treatment.

Dr. Beckner asserted that effective PTSD treatment changes neurobiology, creating coherence and integration of executive functioning with emotional experience. She acknowledged that various therapeutic approaches can achieve this goal over time, including insight-oriented work, interpersonal, narrative, and CBT.

I didn't get a chance to speak up at the dinner, but I will add some of my own thoughts here. I believe it was researcher Hans Strupp who compared therapeutic approaches and showed that being an empathic listener is the most significant quality of all effective therapists. The book *A General Theory of Love* by Thomas Lewis, Fari Amini, and Richard Lannon articulated the biological basis for this fact. The human limbic system is designed to self-regulate and re-orient itself within the context of resonating relationships. More plainly said, human beings are better able to tolerate overwhelming experiences when they are shared with empathic others. In *The Interpersonal World of the Infant*, attachment researcher Daniel Stern described infants' traumatized responses to early caregivers who showed a lack of attunement to the infants' distress. A strong therapeutic alliance with adult clients helps them feel that distress is recognized and appropriate support and validation is available so that internal frameworks can be restructured. James W. Pennebaker has also done experimental studies showing that writing narratives about traumatic experience

improves physical and mental health. Disclosure in writing and in speech appears to help individuals reorganize memories and meanings, and repair a damaged sense of self.

A number of other related topics emerged. This article documents just a bit of what transpired. All who attended the dinner had a chance to network, schmooze, and reconnect with friends. Thanks to Dr. Beckner for her presentation and thanks also to those who arranged the dinner at Il Fornaio.