Review of *Trauma: Rhythms of Bodies, Brains & Relationships*, presented by Bessel van der Kolk, MD.

Reviewed by Mark Geer, Ed.D.

It was a delight to have Dr. van der Kolk speak at our 25th Anniversary Celebration. He is renowned for his pioneering research on PTSD and disorders of extreme stress. His topic, "Trauma: Rhythms of Bodies, Brains, and Relationships", reflects his 30+years of dedication to understanding the neurobiological, psychological and social impact of severe trauma on the brain and on people's ability to have healthy relationships and to be productive in society. His presentation revealed he is not only a scientist-clinician but also an historian. He began his talk by providing a brief historical review of some major contributors to trauma theory, such as Pierre Janet, Ph.D. in the late 1800s along with Freud and Breuer, and Kardiner and Grinker in the 1940s on war neuroses, and then offered an autobiographical snapshot of the evolution of trauma research and theory development here in Boston.

An appropriate subtitle to Dr. van der Kolk's talk is the title of a paper he published in the New York Academy of Sciences in 2006, "Clinical Implications of Neuroscience Research in PTSD," which can be downloaded from the Trauma Centers Website www.traumacenter.org for those who want to read in detail about the neuroscience of trauma. Several major points were made during the talk which I will highlight, quote, and paraphrase from Dr. van der Kolk's talk and published work.

- *..."living creatures more or less automatically respond to incoming sensory information with relatively stable neuronal and hormonal activation resulting in consistent **action** patterns: predictable behaviors that can be elicited over and over again in response to similar input. Under ordinary conditions the executive and symbolizing capacities of the prefrontal cortex can modify these behaviors by providing the ability to observe, know, and predict by inhibiting, organizing and modulating those automatic responses" (1)*

- *…"From its inception it has been clear that PTSD captures only a limited aspect of posttraumatic psychopathology…exposure to chronic interpersonal trauma, especially in early childhood, is highly associated with problems in (1) regulation of affect and impulses, (2) memory and attention, (3) self perception, (3) interpersonal relations, (5) somatization, (6) and systems of meaning. (2) …"People who suffer from PTSD seem to loose their way in the world. Since at least 1889 it has been noted traumatized individuals are prone to respond to reminders of the past by automatically engaging in physical actions that must have been appropriate at the time of the trauma, but that are no longer relevant." (1) "Describing traumatic experiences in conventional verbal therapy is likely to activate implicit memories, that is, trauma-related physical sensations and physiological hyper- or hypoarousal, which evoke memories, such as helplessness, fear, shame, and rage. When this occurs trauma victims are prone to feeling that it is still not safe to deal with the trauma and, instead, are likely to seek a supportive relationship in which the therapist becomes a refuge from a life self-experience of anxiety and ineffectiveness. Learning to modulate one's arousal level is essential for overcoming the resulting passivity and dependency."(1) "PTSD involves a fundamental dysregulation of arousal modulation at the brain stem level. PTSD patients suffer from baseline autonomic hyperarousal and lower resting HRV (heart rate variability) compared to controls, suggesting that they have increased sympathetic and decreased parasympathetic tone. A main goal of therapy for trauma patients is to learn how to tolerate feelings and sensations by increasing the capacity for interoception or sitting with oneself, noticing what's going on inside-the basic principal of meditation. They need to learn how to modulate arousal….learn how to notice what is happening and how things can and will shift, rather than running away or turning to alcohol or drugs to self medicate. Once they realize that their internal sensations continuously shift and change, particularly if they learn to develop a certain degree of control over their physiological states by breathing and movement, they will viscerally discover that remembering the past does not inevitably result in overwhelming emotions. Traumatized people often are terrified of the sensations in their bodies. Most trauma-sensitive people need some form of body-oriented psychotherapy or bodywork to regain a sense of safety in their bodies." (2)*

- *The promise of closeness and attunement for many traumatized individuals automatically evokes implicit memories of hurt, betrayal, and abandonment. As a result, feeling seen and understood, which ordinarily helps people to feel a great sense of calm and in control, may precipitate a reliving of the trauma in individuals who have been victimized in intimate relationships. This means that as trust is established it is critical to help create a physical sense of control by working on the establishment of physical boundaries, exploring ways of regulating physiological arousal,*

in which using breath and body movement can be extremely useful, and focusing on regaining a physical sense of being able to defend and protect oneself. It is particularly useful to explore previous experiences of safety and competency and to activate memories of what it feels like to experience pleasure, enjoyment, focus, power and effectiveness, before activating trauma-related sensations and emotions." (1)

In addition to these fundamental concepts of the neuroscience of trauma and a model of trauma therapy, Dr. van der Kolk also reported on his research comparing the treatment efficacy of EMDR vs. Prozac vs. Placebo. The findings showed that adult patients with acute trauma were helped the most by EMDR. Childhood trauma patients were also helped but improvements were not as robust. And finally, we heard about cutting edge research which involved teaching parts of the brain to respond differently utilizing neurofeedback as well as a trauma-sensitive yoga program at the Trauma Center. We watched a documentary about a musical theater production company that works with traumatized adolescents and young adults, focusing on trauma processing through group dynamics, telling, action, and self- and emotion-regulation skill-building.

As this review reflects, Dr van der Kolk's presentation, "Trauma: Rhythms of Bodies, Brains and Relationships", addressed much of his current research, theory development and clinical application in the field of trauma - so much to learn and absorb in such a brief time.

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Bibliography

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