

**THE DISTRICT OF COLUMBIA SUPERIOR COURT
CRIMINAL DIVISION
THIRD ANNUAL CRIMINAL JUSTICE CONFERENCE**

***MENTAL ILLNESS AND TREATMENT
PAST, PRESENT AND FUTURE***



**George Woods, M.D.
Washington D.C.
November 2, 2012**

THE NEUROBIOLOGICAL EFFECTS OF TRAUMA

Johnson Woods Education



“He never said ‘Don't tell your mama.’
He never had to say it. I did not know
how to tell anyone what I felt, what
scared me and shamed me...”

- Dorothy Allison, *Bastard Out of Carolina*

WHY DOES THIS MATTER TO THE COURTS?

- Whether criminal or civil, clients fall somewhere on the anxiety continuum, if for no other reason than that they are involved in legal proceedings
- Court personnel who work in forensic cases suffer so much secondary stress and trauma that they can become inured to the these very symptoms in others
- Knowing how to screen for traumatic stress conditions and negotiate the symptoms in the context of the attorney-client relationship is essential to effective outcomes for the client
- A better understanding of these symptoms will also reduce the amount of secondary trauma and compassion fatigue experienced by the court personnel

WHY DOES THIS MATTER TO THE MENTAL HEALTH PROVIDER?

The Relevance of Neuroscience for Psychiatrists

Many psychiatrists are not familiar with the latest developments in neuroscience and many clinicians are a bit skeptical about the relevance of neuroscience in their practice. After watching these two videos, these clinicians may possibly change their minds.

- Mayada Akil, MD | October 23, 2012

WHAT CAN NEUROSCIENCE OFFER CLINICIANS?

Using case samples, Dr. Akil introduces the concept of neuroscience and explains how some of the latest developments can be used in everyday practice.

USING NEUROSCIENCE TO OVERCOME STIGMA

Dr. Akil explains that through neuroscience, patients can be helped to understand that the disorder is medical and that it may be biological.

WHY DOES THIS MATTER TO THE FORENSIC EXAMINER?

Forensic Education and the Search for Truth

In 2005, the National Academy of Sciences (NAS) issued a report criticizing the status of forensic science in the United States. It called for better reliability, enforceable standards, and use of best practices. The NAS's main conclusion: "Research is desperately needed."

WHY DOES THIS MATTER TO THE FORENSIC EXAMINER?

The report barely mentioned forensic psychiatry, however, said Charles Scott, M.D., president of the American Academy of Psychiatry and the Law, in his presidential address at the organization's annual meeting Thursday in Montreal. "We were in the book, but we were not well defined."

To better define itself as a science, forensic psychiatry needs to continue its balance of clinical and actuarial methods of evaluating patients.

DEFINING THE SUBJECT

- The Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) criteria are woefully inadequate in describing the subtle but devastating symptoms in trauma clients
- The term Post-traumatic stress disorder (PTSD) does not do justice to the phenomenon, especially in complicated PTSD and the dissociative disorders
- Many debilitating symptoms such as somatic flashbacks and psychosis are barely mentioned in the criteria
- Similarly, dissociative symptoms – perhaps the best cloaked and most insidious – are hardly ever discussed
- PTSD is *not* discussed as a disorder of profound dysregulation – chemical, neurological, and social

“It is axiomatic among psychologists and other mental health professionals that early experiences influence subsequent psychological development. The proposition is arguably one of the most fundamental lessons in human science—what happens to us as children helps to shape our thoughts, feelings and actions as adults.”¹

WIGGINS V. SMITH, 539 U.S. 510, 537 (2003)

“had the jury been able to place petitioner’s excruciating life history on the mitigating side of the scale there is a reasonable probability that at least one juror would have struck a different balance”

- Reversal of death sentence based on counsel’s failure to conduct adequate social history investigation

WHAT IS TRAUMA?

- The DSM-IV defines a “traumatic event” as one in which a person experiences, witnesses, or is confronted with actual or threatened death or serious injury, or threat to the physical integrity of oneself or others
- Responses to trauma can include intense fear, helplessness, and horror
- Traumatic events can either be “private” (i.e. sexual assault, domestic violence, child abuse/neglect, witnessing interpersonal violence) or “public” (i.e. war, terrorism, natural disasters)
- Trauma resulting from prolonged or repeated exposures to violent events is the most severe
- Chronic trauma does not have the same symptom pattern as a single trauma

SNAPSHOT OF THE PREVALENCE OF TRAUMA ²

- 90% of people in the public mental health system are victims of trauma
- 85% of girls in juvenile justice are victims of early physical and sexual abuse
- 97% of homeless women with mental illness are victims of trauma on the streets
- 87% of homeless women are victims of early childhood abuse
- 50% of women in substance abuse programs are victims of incest
- Men have high rates of childhood sexual abuse
- Men are less likely than women to report abuse or seek help

THE ADVERSE CHILDHOOD EXPERIENCES STUDY (ACES) ³

- The Center for Disease Control examined the health and social effects of traumatic childhood experiences over the lifespan of over 17,000 participants
- Results of the study demonstrated that trauma is far more prevalent than previously recognized
- Impacts of trauma are cumulative and unaddressed trauma underlies a wide range of health problems such as heart disease, cancer, chronic lung disease, skeletal fractures, HIV-AIDS
- Impacts of trauma underlie social problems such as homelessness, prostitution, delinquency, criminal behavior, inability to hold a job

INSTINCTUAL TRAUMA RESPONSE MODEL AND CORRESPONDING BODY SENSATIONS

- Startle
- Fight or Flight
- Freeze
- Altered State of Consciousness or Dissociation
- Automatic Obedience or Auto Pilot
- Self Repair

STARTLE: *WHAT'S THAT?*

- Body braces
- Breath stops – gasp
- Body and mind become hyperalert, beginning scanning and trying to figure out and organize what is happening
- Dread or dire expectancy
- Muscle tension

FIGHT OR FLIGHT: *WHAT CAN I DO?*

- Adrenalin floods the system, which causes an emotional imprint of the event
- Heart begins pumping fast and hard
- Breathing becomes fast and shallow
- Flushing of face and skin (may feel tingly)
- Saliva reduces, mouth becomes dry
- Pupils become dilated to let light in
- Forceful, jerky movements
- Loss of words: a paucity of language and propensity to act

FREEZE: *THERE'S NOTHING I CAN DO!*

- Rush of chemicals, especially endorphins, which takes away fear, terror or extreme confusion
- Physical and emotional numbing
- Slowed breathing and heart rate
- Myopic perspective, much like looking through a dark tunnel
- Feels like a near death experience

ALTERED STATE OF CONSCIOUSNESS OR DISSOCIATION: *I'M NOT REALLY HERE...*

- Out of body experience
- Lack of volition
- Distorted time and images
- Numbed to body sensations
- Things look like a movie or dream

AUTOMATIC OBEDIENCE OR AUTO PILOT: *I'LL JUST GET THROUGH IT...*

- Externally motivated; going along
- Loss of executive function
- Using the executive strength of others
- Waxy flexibility (limp, stiff, easily moved by others)
- Robot-like movements

SELF REPAIR:

IT'S OVER... BUT WHAT HAPPENED TO ME?

- Reorientation to time, place, person, events
- Recovering movement and speech
- Regaining executive function
- Efforts to self-soothe or calm oneself down
- Feeling a little more normal

“Alone, I often fall down into nothingness. I must push my foot stealthily lest I should fall off the edge of the world into nothingness. I have to bang my head against some hard door to call myself back to the body.”

-- Virginia Woolf, *The Waves*

LACK OF A DEVELOPMENTALLY APPROPRIATE TRAUMA DIAGNOSIS IN CHILDREN ⁴

- Childhood victimization is followed by a spectrum of specific symptoms
- These symptoms cannot be accounted for by any existing DSM-IV diagnosis or combination of comorbid diagnoses including PTSD
- Research on the biological systems disrupted by childhood trauma is consistent with this spectrum of behavioral, affective, cognitive, and relational symptoms
- The application of nonspecific diagnoses to maltreated children reduces the likelihood of positive treatment outcomes, whereas interventions that comprehensively address the spectrum of problems increase the likelihood of positive treatment outcomes

NEUROBIOLOGY OF TRAUMA

- Changes in the body and brain are set in motion when there are overwhelming threats to physical or psychological well being
- Violence has a negative impact on all critical tasks of development
 - Cognitive growth and learning
 - Emotional self regulation
 - Attachment to caregivers and social development
- Hyperstimulation of the amygdala in the limbic brain lowers the threshold for fear response
- Cumulative Risk Model of Developmental Outcome
- Child maltreatment has an impact on both the neurotransmitter and neuroendocrine systems

IMPACT OF WITNESSING VIOLENCE

- Controlled studies show structural changes in the brains of children exposed to violence
 - Less brain mass
 - Less brain tissue connecting the hemispheres
- Controlled studies show changes in the stress hormone systems of children exposed to violence
- These physiological changes are associated with changes in cognitive function
- Family violence in infancy and early childhood also shatters the developmental expectation of protection from the attachment figure where protector becomes a source of danger

SEQUELAE OF EXPOSURE TO VIOLENCE IN YOUNG CHILDREN

- Externalizing problems
 - Aggression to parents and peers
 - Recklessness/accident-proneness
 - Intractable tantrums
 - Defiance/non-compliance
- Internalizing problems
 - Increased depression and poor self esteem
 - Emotional withdrawal
 - Fears, anxiety, sleep problems
 - Hypervigilance
- Impaired social interactions
- Delayed cognitive development and poor academic functioning

POSSIBLE GENDER DIFFERENCES IN STRESS RESPONSE

- Prior research on the physiological response to stress has been mostly on men finding that men have a “fight or flight” response
- New research on women shows that they may respond to stress in a “tend and befriend” way
- The release of oxytocin due to stress reduces or buffers the “fight or flight” response
- Oxytocin effects are enhanced by estrogen and reduced by testosterone possibly explaining the different physiological responses between men and women

COMMUNICATING WITH YOUR CLIENT

- Dissociative symptoms – perhaps the best cloaked and most insidious – have the greatest implication for trying to develop a working relationship with a client
- Be aware that the client may not be comfortable right away, and that you will need to conduct several interviews to uncover trauma
- Shorter, multiple interviews work best in forensic settings with extremely traumatized people
- Be sensitive to the client's trauma, use eye contact and sympathetic body language, and be cognizant of the words you use
- Allow client to take a break if client is upset or experiencing too much anxiety
- Keep in mind you are retraumatizing your client by asking them to reexperience their trauma

THE NEW RESPONSIBILITY OF COURT PERSONNEL

- When working with a client, look for the symptoms of trauma, not the diagnosis of trauma
- Recognize your own burnout and vulnerability to trauma
- Understand that traumatized people can be very difficult to work with
- Trauma is cumulative and uncovering trauma will engender trust even though the client may not be able to articulate that trust
- Awareness of the client's trauma history and knowing how to negotiate the symptoms will benefit the client, the case, and improve the attorney-client relationship
- Understanding the impact of trauma on the client's life is relevant at all stages of a criminal or civil case

"To the person in the bell jar, blank and stopped as a dead baby, the world itself is the bad dream."

- Sylvia Plath

REFERENCES

1. Haney, C., Evolving Standards of Decency: Advancing the Nature and Logic of Capital Mitigation, *Hofstra Law Review*, Volume 36, No. 3, p. 856 (2008)
2. *Understanding the Effects of Trauma on the Lives of Those We Serve Developing Trauma Informed Systems of Care*, Presentation by Joan Gillece, Ph.D., National Association of State Mental Health Program Directors, National Center for Trauma Informed Care.
3. Kaiser Permanente (2007). Adverse Childhood Experiences Study, Major Findings. *Center for Disease Control and Prevention*.
4. D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J. and van der Kolk, B.A., Understanding Interpersonal Trauma in Children: Why we need a Developmentally Appropriate Diagnosis, *American Journal of Orthopsychiatry* (2012) Vol. 82, No. 2, 187-200

JOHNSON WOODS EDUCATION

Jennifer Johnson, J.D. is a practicing attorney in San Francisco. She represents criminal defendants with serious mental illness and is a co-founder of San Francisco's Behavioral Health Court. She is a partner in Johnson Woods Education and can be reached at jennifer@johnson-woods.com.

George Woods, M.D. is a practicing neuropsychiatrist in San Francisco and an adjunct professor of medicine at Morehouse School of Medicine. He is also a lecturer at Boalt Hall, The University of California, Berkeley, School of Law. Dr. Woods is a partner in Johnson Woods Education and can be reached at george@johnson-woods.com.