Framing Trauma: What is Trauma?

TESSA CHESHER, D.O.
ASSISTANT PROFESSOR
OXLEY CHAIR OF CHILD AND ADOLESCENT PSYCHIATRY
OU SCHOOL OF COMMUNITY MEDICINE
History of Trauma

Military
- Soldier’s heart (Civil War)
- Shell Shock (WWI)
History of Trauma

Catastrophes
  ◦ Railway accidents

Social Revolution (1960s)
  ◦ Interpersonal violence
  ◦ Introduction of rape trauma syndrome

SAMSHA, 2014
History of Trauma

PTSD as a diagnosis (1980)
- Body of research begins to grow

SAMSHA, 2014
Forget Trauma??

Previous belief

- Children forget trauma
- Children couldn’t verbally explain PTSD symptoms

Traumatic play indicated this belief wasn’t true

Neuroimaging

- PTSD showed many changes in child brain
Neuroimaging

Exposure to childhood maltreatment
- Much smaller volumes of gray matter in several areas
Healthy Brain
This PET scan of the brain of a normal child shows regions of high (red) and low (blue) activity. At birth, only primitive structures such as the brain stem (shown here) are fully functional, in regions like the temporal lobes (top), early childhood experiences shape the circuits.

An Abused Brain
This PET scan of the brain of a Romanian orphan, who was institutionalized shortly after birth, shows the effect of extreme deprivation in infancy. The temporal lobes (top), which regulate emotions and receive input from the senses, are nearly nonexistent. Such children suffer emotional and cognitive problems.
Neurobiological Effects

Hippocampus volume decreased (in adults):
  ◦ Central to learning and memory
  ◦ Toxic stress also can reduce the hippocampus’s capacity to bring cortisol levels back to normal after a stressful event has occurred

Corpus callosum volume decreased:
  ◦ Interhemispheric communication and other processes (e.g., arousal, emotion, higher cognitive abilities)

Cerebellum volume decreased:
  ◦ Helps coordinate motor behavior and executive functioning
Neurobiological Effects

Prefrontal cortex smaller:
- critical to behavior, cognition, and emotion regulation
- Emotion and social regulation

Amygdala over activity

Cortisol dysregulated:
- Determines whether a stimulus is threatening
- triggers emotional responses

Ventrolateral prefrontal and limbic-temporal regions
- Linked to cognitive control
DSM 5

PTSD Definition
  ◦ Preschool type was added
  ◦ Michael Scheeringa, M.D.
Child Trauma
52% of children ages 2-5 have experienced a severe stressor in their lifetime (Egger, 2004)

Most common
- Accidents
- Physical trauma
- Abuse
- Neglect
- Exposure to domestic and community violence
Accidents and Physical Trauma

One in three children ages 0-6 have severe injuries severe enough to warrant medical attention. (Beach and McCormick, 1997)

Most frequent in ages 0-5 (Grossman, 2000)

- Drowning
- Burns
- Falls
- Choking
- Poisoning (Grossman, 2000)
Child Abuse and Neglect

Infants are the fastest growing age group entering foster care (Dicker, 2001)

27.3% of maltreated victims in 2013 were ages 0-3. (DHHS, 2013)
Exposure to Violence

SAMSHA survey: parent report
- 23% of children have seen or heard a family member being threatened with physical harm (Crusto et al., 2009)

Children entering Head Start (Shahinfar et al., 2000)
- 2/3 witnessed or victimized by community violence

Survey in outpatient pediatric clinic
- Children 0-6
  - 10% of children have witnessed a knifing or shooting
  - 50% of those were in the child’s home

www.nctsn.org
For More Information...

Beyond ACEs:

- [www.NCTSN.org](http://www.NCTSN.org)
  - Resources for school, medical professionals, mental health professionals
  - Extensive literature database
- The PILOTS database (Published International Literature On Traumatic Stress)
- Center for the Developing Child
  - [http://developingchild.harvard.edu/](http://developingchild.harvard.edu/)
- [www.ChildTrauma.org](http://www.ChildTrauma.org)
References

Center for Substance Abuse Treatment (US). TraumaInformed Care in Behavioral Health Services. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2014. (Treatment Improvement Protocol (TIP) Series, No.57.)
