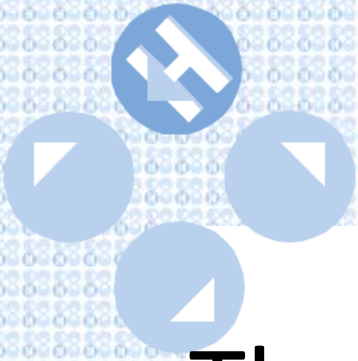


The Impact of Trauma on the Body and Brain

Presented by:

- **Laura Hinds**, MSW, LCSW, Principal Partner of Hindsight Consulting Group, LLC
- **Naomi Jones**, Ph.D., Senior Director of Outpatient Services for Jewish Family Service of Atlantic & Cape May Counties

Facilitated by Amanda Jarvis, JFNA



The Impact of Trauma on the Brain

By Laura Hinds MSW, LCSW

For JFNA Webinar on
Trauma



Today's Learning Objectives

- To define, explore, and highlight trauma, its traits, origin, and general presentation
- General overview of current data re: the neuroscience of the impact of trauma on brain architecture, social development, and psychosocial traits



Sandra Bloom once stated:

Trauma is when a person's internal resources are overwhelmed by external circumstances (Personal Communication, 2013).



Generally, Trauma is considered

- Sudden/Unexpected
- Perceived as “life threatening”
 - This includes severe emotional threat
 - This perception is directly impacted by childhood
- When one’s previous coping strategies fail
 - Person feels hopeless, powerless, and traits of victimization
- The result of on-going, undischarged toxic stress
- Often underreported (Cohen, Mannarino, & Deblinger, 2016)



Presentation of Trauma

- Neurological/biological
- Behavioral
- Effects on Cognitive Processes
- Negative health outcomes (ACE's Study)



Neurological Impact of Trauma

- We are “altricial infants” (vs precocial)- so we are more susceptible to trauma affecting our brains
- Brain has two growth spurts, 0-5 and 12-24 years of age
 - Trauma occurring during these windows of development are particularly impactful
 - Pruning process is impacted
 - Brains become accustomed to responding in patterns
- Trauma can impact the development of key parts of the brain and those effects can span a life-time

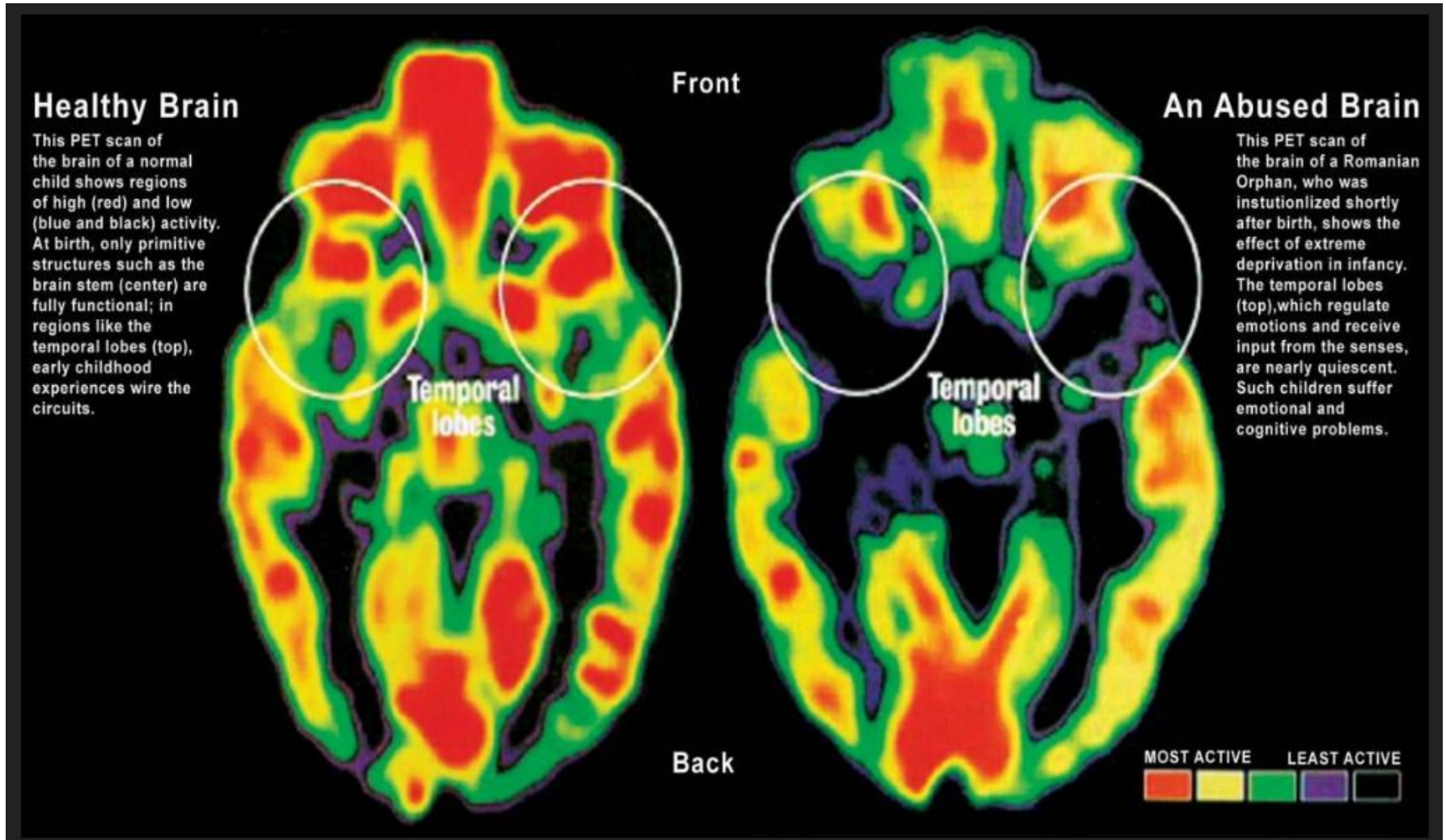


Changes sustained in

- The brain's wiring (or architecture)
- Amygdala
 - Alarm system of the brain
 - Sympathetic and Parasympathetic Nervous System (CNS)
- Pre-frontal cortex
 - Executive Functioning
 - Emotional Regulation
- Hippocampus
 - Memory- translating short term to long term
 - Learning
- Pituitary System
 - Adrenal Fatigue



Healthy vs Traumatized Brain



Courtesy of the CDC



Importance of Brain States

Calm Brain

vs

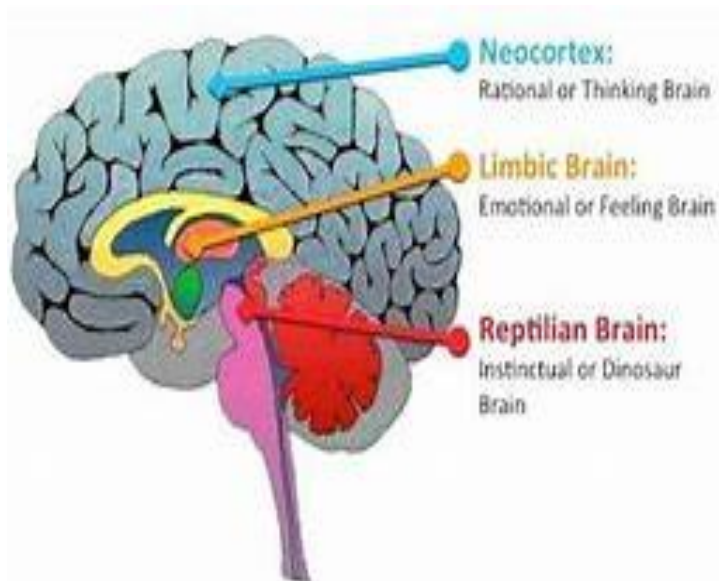
Stressed Brain

Access to the PFC

Survival Instincts

Rational Thought

Chaotic responses



Amygdala (fear center)





Effects on Cognitive Processes

- Organizing narrative material
- Understanding “Cause & Effect”
- Translation from words to action
- Planning
- Problem solving
- Taking another's perspective
- Attentiveness
- Regulating emotions
- Executive functioning
- Engaging in new learning



Trauma Realities in Aging

NEUROBIOLOGICAL/PHYSICAL

- Deterioration of neurological pathways:
 - Poor Nutrition
 - Inactive Brains= Increased Vulnerability
 - Dementia
 - De-myelinating Diseases
- Loss of physical coping strategies
- Memory Loss/Conflation
- Impact on Sensory Perception
- Bio-chemical changes impacting physical triggers
- Medical Trauma (Ganzel, 2016)

Rule out:

- Mineral Deficiency
- Pharmacological interference or interactions

SOCIAL

Loss of Social and Coping Supports

Impact of Trauma on parenting & long-term parent/child relationship/support (Isserman, Hollander-Goldfein, & Horowitz, 2017)

Impact of “Survivorship”

- Esteem/Identity vs Avoidance and Social Isolation (Isserman, Hollander-Goldfein, & Horowitz, 2017)

Increase in perceived vulnerability and actual dangers

Social Isolation can increase rumination and/or triggers due to a lack of distraction



More on Memory

- **Implicit (or amygdala dependent) Memory**
(Graf, P., & Masson, 2013)
 - We are not aware of making the memories
 - They are “survival” focused
 - These memories can cause irrational and dysregulated pairing of responses to stimuli without our knowledge.

Vs

- **Explicit Memory Impact**
 - Impacts the sequence of memory, where it is stored, and how it is recalled
 - What fires together, wires together- (Hebb’s Axiom, 1949)
- **This has a huge clinical impact!**



Hope and Recovery

- Brain Plasticity- we can learn new ways of processing and reacting
- Healing is Possible- there is hope!
- Our role in healing is augmented by our own self-care . . .



References

- Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2016). *Treating trauma and traumatic grief in children and adolescents*. Guilford Publications.
- Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., ... & Mallah, K. (2017). Complex trauma in children and adolescents. *Psychiatric annals, 35*(5), 390-398.
- Ganzel, B. L. (2016). Trauma-informed hospice and palliative care. *The Gerontologist, 58*(3), 409-419
- Gapp, K., Jawaid, A., Sarkies, P., Bohacek, J., Pelczar, P., Prados, J., ... & Mansuy, I. M. (2014). Implication of sperm RNAs in transgenerational inheritance of the effects of early trauma in mice. *Nature neuroscience, 17*(5), 667-669
- Graf, Peter, and Michael EJ Masson, eds. *Implicit memory: New directions in cognition, development, and neuropsychology*. Psychology Press, 2013.
- Isserman, N., Hollander-Goldfein, B., & Horowitz S. N. (2017) Challenges for aging Holocaust survivors and their children: The impact of early trauma on aging. *Journal of Religion, Spirituality & Aging (29:2-3) 105-129.*



References Continued

- Kirsner, K. (2013). *Implicit and explicit mental processes*. Psychology Press.
- Knowles, M., Rabinowich, J., De Cuba, S. E., Cutts, D. B., & Chilton, M. (2016). “Do you wanna breathe or eat?”: parent perspectives on child health consequences of food insecurity, trade-offs, and toxic stress. *Maternal and child health journal*, 20(1), 25-32.
- Lyons-Ruth, K. (2015). Dissociation and the parent–infant dialogue: A longitudinal perspective from attachment research. *Attachment*, 9(3), 253-276.

The Impact of Trauma on the Body, Long-term Effects of Trauma & Strategies to Assist Older Adults with Trauma Histories

Naomi Jones, Ph.D.

May 30, 2019

The Impact of Trauma on the Body

- Individuals impacted by trauma will experience symptoms immediately after the trauma.
- Bodily sensations as well as emotions associated with threat or danger will continue after the threat is over for days, weeks, months or even a lifetime.
- Some examples of how the body is impacted by trauma include:

Panic/Anxiety

- Pounding heart
- Trouble breathing
- Difficulty swallowing
- Dizziness
- Nausea or vomiting
- Uncontrollable trembling or shaking
- Feeling hot and flushed
- Excessive perspiration

Anger

- Feel red in the face
- Feeling hot and flushed
- Shaking in the hands and/or body
- Excessive perspiration
- Rapid breathing
- Clenched fists
- Headaches

Sleep Disturbances

- Difficulty falling asleep
- Early awakening
- Restless sleep
- Nightmares

Hyperarousal

Hyperarousal is a time when the body is on high alert. It is characterized by:

- Hypervigilance
- Difficulty concentrating
- Exaggerated startle response
- Sleep disturbances
- Anger and irritability

Response to Trauma in Older Adults

- Older adults are more likely to deny symptoms of traumatic stress or to minimize their traumatic experiences.
- They may be more likely to report somatic complaints and fewer psychological symptoms.
- They may report more avoidance, sleep problems, and hyperarousal in comparison to younger adults exposed to trauma.

Response to Trauma in Older Adults

Older Adults can be at higher risk of adverse consequences to trauma due to increased likelihood for additional stressors, such as:

- Social isolation
- Physical limitations or complications
- Chronic illness or other medical problems
- Cognitive impairment
- Financial limitations

Long-term Effects of Trauma

- For those individuals who do not feel relief in symptoms shortly after exposure to a trauma, trauma treatment is effective in reducing symptoms.
- Without treatment, trauma can have lasting effects, including emotional, behavioral, and physical effects that interfere with functioning.

Emotional Effects:

- Posttraumatic Stress Disorder (PTSD)
- Depression
- Hopelessness
- Emotional numbing
- Guilt
- Shame
- Poor self-esteem

Behavioral Effects:

- Substance abuse
- Withdraw from family and friends
- Less participation in enjoyable activities
- Aggressive behaviors
- High risk behaviors

Behavioral Effects (cont.)

- Avoidance of people, places, situations, and activities that are trauma reminders
- Self-injury
- Suicide
- Disordered eating
- Compulsive behaviors

Physical Health Effects:

- Medical problems are more likely to occur in individuals impacted by significant stress and trauma.
- The greater the number of adverse experiences, the greater the likelihood of medical problems.
- Additionally, individuals may avoid medical care if it is a trauma reminder which may also lead to poorer health.

Physical Health Effects:

- Somatic Complaints
- Gastrointestinal problems
- Obesity
- Diabetes
- Heart disease

Physical Health Effects (cont.)

- Cancer
- Lung disease
- Liver disease
- Hepatitis
- Dementia

Strategies to Assist Older Adults with Trauma Histories

- Evidence-based practices for trauma treatment
- Healthy Lifestyle Choices
- Coping and Relaxation Skills

Evidence-Based Practices for Trauma Treatment

- Prolonged Exposure (PE)
 - In vivo
 - Imaginal
- Cognitive Processing Therapy (CPT)
- Eye Movement Desensitization and Reprocessing (EMDR)

Healthy Lifestyle Choices

- Keep or initiate regular routines for sleeping and eating
- Maintain nutritious diet
- Exercising
- Volunteering
- Developing or enhancing social supports
- Develop a hobby or resume a favorite activity

Coping and Relaxation Skills

- Keeping a journal
- Breathing exercises
 - Belly Breathing
 - 4-7-8 Breathing
- Mindfulness/Meditation
 - Raisin Meditation
- Tapping

The Impact of Trauma on the Body

- Individuals can be impacted by trauma emotionally, behaviorally, and physically. For some, the impact can last a lifetime. Nonetheless, there are treatments and coping skills that are effective in helping people cope and heal.

Questions?



The Jewish Federations®
OF NORTH AMERICA

THE **STRENGTH** OF A PEOPLE.
THE **POWER** OF COMMUNITY.

Next Steps

- The RFP to fund new grantees is launching this Summer! We will send details to everyone on this webinar.
- JFNA's 2019 Training Workshop - September 24-25 in Washington, DC!
- Questions for us or the speakers: email HolocaustCenter@JewishFederations.org

Reminders

- Please complete the brief webinar evaluation survey in our follow-up email
- Current Subgrantees: verify your participation in this webinar.

SECRET WORD:

RESILIENCE