The Neurobiology of Trauma From a Trans and Queer Lens

Presented by Oliver Licking
Introductions and Housekeeping
Objectives

- As a result of this presentation, participants will be able to:
  - Define trauma and the immediate psycho-physiological impacts
  - Identify the behavioral and mental crisis reactions survivors may have to a traumatic event
  - Discuss ways to support self and others who have experienced trauma.
  - Understand the context of primary, secondary, and historic trauma in the LGBTQIA+ community
Self Care and Content/Trigger Warnings: Please Take Care of Yourself
Defining Trauma

- A deeply stressful or disturbing experience that can overwhelm a person’s ability to cope.
- “Traumatic experiences are extraordinary, not because they occur rarely, but rather because they overwhelm the ordinary adaptations to life. Judith Herman, *Trauma and Recovery*
- Traumatic Events include: witnessing violence, intentional violence, sexual assault, poverty, natural disasters, war, phobic violence...etc.
- No individual experience of trauma is the same.
Trauma and the Brain

- Hemispheres
  - Left Brain
  - Right Brain

- Structures
  - Frontal Cortex
  - Limbic & Mid-brain
  - Brain Stem

- Limbic Structures
  - Thalamus (mid-brain, right side) - sensory information
  - Amygdala - smoke detector
  - Hippocampus - time stamper
  - Hypothalamus - communicator
  - Pituitary Gland - hormone dose, controlled by hypothalamus
Trauma Response

Your brain did something ordinary in an extraordinary situation
When a traumatic event happens...

1. Thalamus takes in sensory data
2. Based on data, amygdala detects danger and sets of “smoke alarm”
   - Hippocampus functioning shuts down
   - Integrated flow of information to cortex is cut off
   - Hypothalamus and pituitary gland begin process of hormone secretion
Hypothalamic-Pituitary-Adrenal Axis (HPA)

- Hormones - “hormone soup”
  - Catecholamine
  - Corticosteroids
  - Opioids
  - Oxytocin
  - Cortisol
- Catecholamine - Adrenaline
- Corticosteroids - Energy
- Opioids - Pain suppressant

Oxytocin - Promotes good feelings
Cortisol - fatigue or energy
Trauma Response

- Memories become somatosensory (emotional/somatic) fragments
  - Right hemisphere, unintegrated fragments
  - Trauma as a psychophysiological experience - both a part of the brain and a part of the body (Babette Rothschild)
Trauma Response

- 96 hours
  - Diminished functioning in prefrontal cortex
  - Evidence collection window

- Arousal-dissociative continuum
  - Fight/Flight/Freeze (tonic immobility)\(\Rightarrow\)---
  - Numbness/Catatonia
Effects of Trauma

- These responses are components of Posttraumatic Stress Disorder
- Hyperarousal - jumpiness, easily startled
- Re-experiencing - intrusive thoughts and images, sensations, dreams, memories
- Avoidance and Withdrawal - Feeling numb and shutdown (separate from normal life), distancing from relationships and activities
Trauma in Context to LGBTQIA+ Communities
Self-Care: Healing is Possible

Managing Life’s Challenges
Self-Care

- Activities we engage in on a regular basis to reduce stress and enhance our short and long-term health and wellbeing
- Managing challenges, being aware of personal vulnerabilities, and achieving balance in your life
  - Physical and psychological health
  - Stress management
  - Emotional and spiritual needs fulfillment
  - Healthy relationships
Self Care Continued

- Read a book
- Watch a funny movie
- Workout
- Cook a meal
- Take a hot shower or bath
- Play your favorite song
- Light candles and dim the lights
- Buy yourself a gift
- Meet up with a friend

- Keep a journal
- Yoga
- Tell yourself one thing you like about yourself every day
- Tell yourself one thing you’re grateful for every day
- Take a long walk
- Wrap up in a huge, soft blanket and watch TV
- Make a “To Do” list


Lisak, D., Ph.D. (2017, September 1). The Neurobiology of Trauma. Lecture presented at . in ., Webinar.

“How the Health Care System Falls Short for Transgender Patients,” CBSNews.com

“Transgender Workers at Greater Risk For Unemployment and Poverty,” Human Rights Campaign

“How Many Adults Identify as Transgender in the United States?,” The Williams Institute at UCLA

“National Transgender Discrimination Survey,” National Center For Transgender Equality


Trauma on the Brain. (2017, August 15). Lecture presented at Columbus Care Coalition Trauma on the Brain two day workshop series in Mount Carmel West Hospital Auditorium, Columbus, Ohio. This was a two day lecture and workshop series focused on an in-depth look at how neurobiology and trauma affect survivors of sexual assault, intimate partner violence, childhood sexual assault, vicarious trauma, and other traumas
How to Reach Out!

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For Survivors of Sexual Violence:

- If you are an adult survivor of sexual violence and need support in Franklin County, please call our 24/7 Rape Crisis Helpline at 614-267-7020

- For residents of Ohio outside of Franklin County: Please call the Statewide Helpline: 844 OHIO HELP
Questions?