PTSD

Post Traumatic Stress Disorder – How we can make a difference

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Disclosures

- I have no relevant financial relationships with the manufacturers(s) of any commercial products(s) and/or provider of commercial services discussed in this CME activity.
- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

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Objectives

- Outline the symptoms, biological framework, and natural course of post-traumatic stress disorder (PTSD)
- Discuss impact of PTSD on development and future functioning
- Review risk factors for development of PTSD
- Identify prevention and early identification strategies
- Highlight evidence-based treatment strategies
- Define the concept of Post-Traumatic Growth

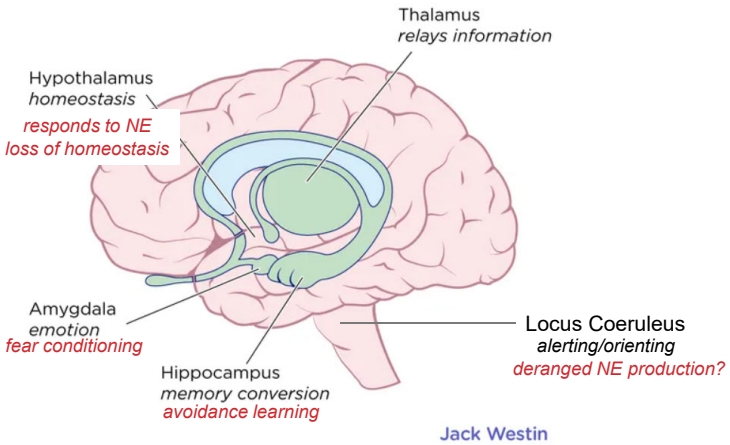
PTSD – THE WHAT

What is PTSD?
What is the biological framework?
What does it look like?

Qualifying Trauma + 3 symptom sets

- Hyperarousal
  - Elevated heart and/or respiratory rate
  - Feeling of dizziness and/or weakness
  - Throat tightening
  - Nausea/vomiting
  - Can progress to dissociation and/or seizure-like event
- Re-experiencing
  - Intrusive memories
  - Flashbacks (visual, auditory, olfactory)
  - Nightmares
- Avoidance
  - Can also look like numbing (substance use)

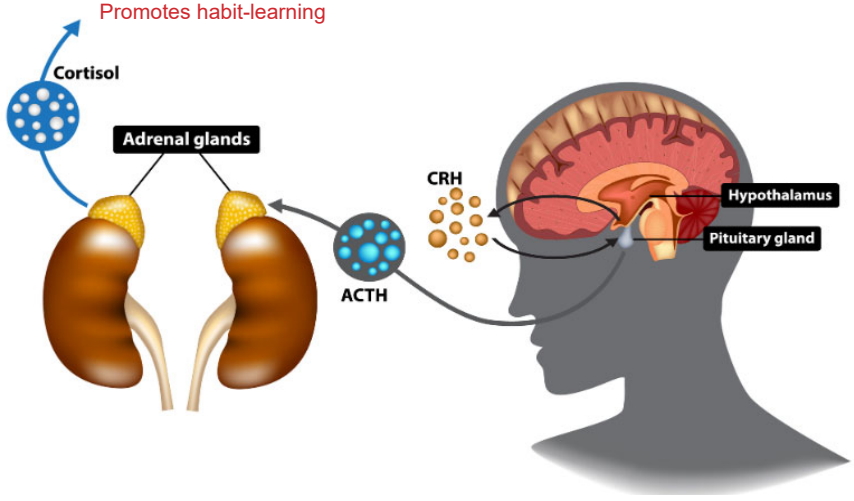
Biologically – The Limbic System



Memory **Emotion** **Autonomic functions**

Biologically – The HPA Axis

Affects cognition
Promotes habit-learning



Biologically – Increased Inflammation

- Early life stress
  - -> Increased sympathetic activity
    - -> Norepinephrine promotes production of proinflammatory cytokines
    - -> Increase in epinephrine
  - -> Decreased parasympathetic activity
    - -> Decreased cholinergic, anti-inflammatory activity
- More pronounced stress-induced HPA axis activity in adulthood
  - -> Increased cortisol levels
  - -> Glucocorticoid insensitivity
  - -> Dysregulation of production of pro-inflammatory cytokines

(Heim et al., 2000; Bierhaus et al., 2003; Tracey, 2009; Evans & English, 2002; Miller et al., 2011)

Complex Trauma/PTSD

- Not just memory (or memories) of traumatic events that are altered in PTSD
- Cognitive processing
- Social and affective information processing

Brewin 2011

- Attempts to use cognition to regain emotion regulation result in limited or even adverse outcomes
  - worry, rumination, self-criticism, or the denial, hiding, or suppression of emotional awareness

Bornas, Tortella-Feliu, Balle, & Llabres, 2013

Sensitive Periods of Development

- Stressors more impactful on immunologic and other physiological systems
  - Immune dysregulation
  - Increased emotional reactivity associated with exaggerated inflammatory response
- Increase vulnerability to disease in adulthood

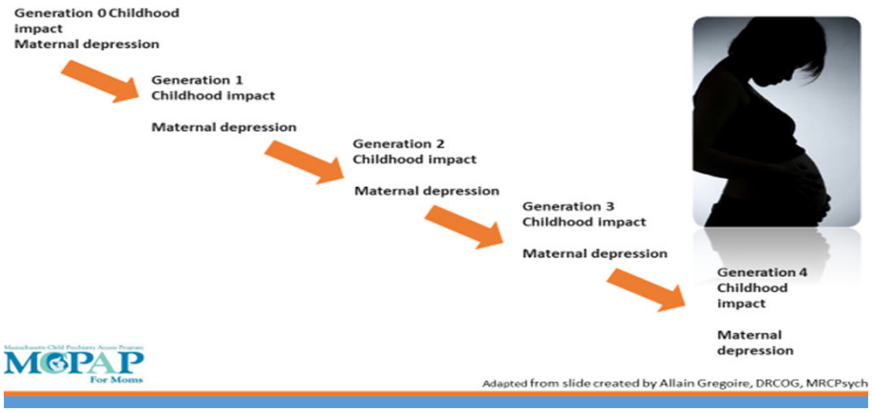
(Carpenter et al., 2010; Glaser et al., 2006; Gunnar et al., 2001; Gunnar et al., 2003; Ellis et al., 2005; Miller et al., 2011)

PTSD – THE WHY

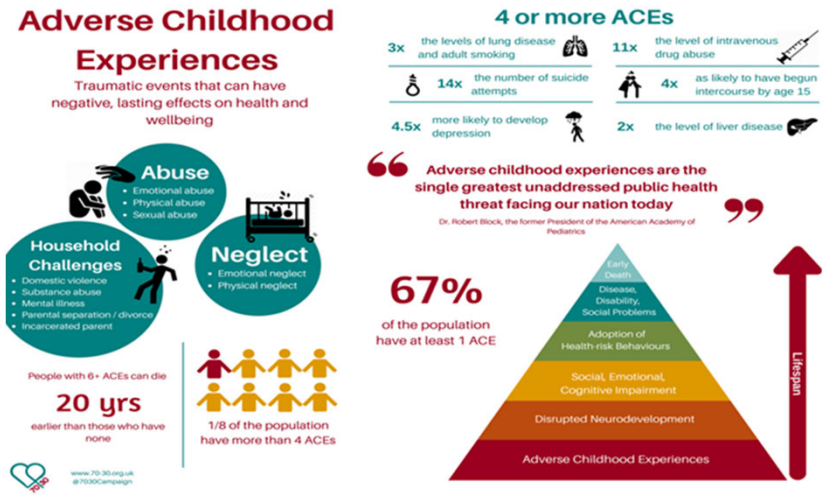
What are risk factors for developing PTSD?
Acute vs. Chronic?

Genetics matter

Epigenetics matter



Early adverse experiences matter



Nature of the trauma matters

- Sudden
- Unexpected
- Isolating – only happened to you
- Invasion of bodily integrity
  - Women > Men?
- Loss of control
- Repetitive

Current coping baseline matters

- Current coping environment
  - Support system
  - Safe and Secure

- Current coping skills set
  - Substance use – numb/avoid
  - Violence/risk-taking – anger/react
  - Mindfulness practice – engage/tolerate

Care experience matters

- Conflicting reports from different teams/consultants
  - Saying things in a slightly different way is confusing
- Changing information
  - Two days ago you said this…. Then yesterday…. Now today…. How do I know it won't be different tomorrow?
- Emotions and shock
  - Distracted, embarrassed, overwhelmed
  - Patient unable to effectively hear everything that is said
- Medical ease
  - Use lay language. AVOID medical jargon. Check for understanding.
  - Ask: That was a lot of information, can you tell me what you heard?, or After all that, what do you understand the plan to be?

PTSD – EARLY RESPONSE

Are there ways to prevent PTSD?

How do we identify PTSD?

What can you know early?

- Acute Stress Disorder < 30 days
  - MOST PEOPLE RECOVER
- PTSD acute – 1 - 3 months
  - Greatest predictor is early avoidance
  - Most people experience significant recovery over this time period
- PTSD chronic – > 3 months
  - Likely needs some intervention

Self-Administered Screens

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use ✓ to indicate your answer)	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless				
3. Trouble falling or staying asleep, or sleeping too				
4. Feeling tired or having little energy				
5. Poor appetite or overeating				
6. Feeling bad about yourself — or that you are a have let yourself or your family down				
7. Trouble concentrating on things, such as readir newspaper or watching television				
8. Moving or speaking so slowly that other people noticed? Or the opposite — being so fidgety or				

The next questions are about problems and compl experiences. Please indicate how much you have questions, the response options are: "not at all", "

PCL1	Repeated, disturbing memories, thought images of a stressful experience from th					
PCL2	Repeated, disturbing dreams of a stressf experience from the past?					
PCL3	Suddenly acting or feeling as if a stressf experience from the past were happenin (as if you were reliving it)?					
PCL4	Feeling very upset when something rem of a stressful experience from the past?	1	2	3	4	5
PCL5	Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of a stressful experience from the past?	1	2	3	4	5
PCL6	Avoiding thinking or talking about a stressful experience from the past or avoiding having feelings related to it?	1	2	3	4	5
PCL7	Avoided activities or situations because they reminded you of a stressful experience from the past?	1	2	3	4	5

GAD-7

Over the last 2 weeks, how often have you been bothered by the following problems? (Use ✓ to indicate your answer)	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

(For office coding: Total Score T___ = ___ + ___ + ___ + ___)

PTSD – TREATMENT

What are evidence-based interventions for PTSD?

What to do urgently after trauma

- Validate
  - What happened to you?
  - I am so sorry that happened.
- Provide safety
- Listen
  - Builds trust/rapport, demonstrates concern
  - Non-verbal is important
- Empathize
- Assess for risk factors and current symptoms (SCREENS)
- Educate
- Potentially medicate hyper-arousal symptoms

What to do on outpatient follow up

- Validate
  - What happened to you?
  - I am so sorry that happened.
- Consider safety
- Listen
  - Builds trust/rapport, demonstrates concern
  - Non-verbal is important
- Empathize
- Assess for risk factors and current symptoms (SCREENS)
- Educate
- Potentially refer for therapeutic interventions

Therapy v. Medication

- Therapy has the best evidence
  - CBT
  - TARGET
- When to refer?
  - Maybe always and let the therapist figure it out?
  - Good to know:
    - You can be too stressed to engage in the problem solving activities of CBT Aldao and Nolen-Hoeksema 2012
    - Problem solving may not be an effective emotion regulation tactic no matter how well it is used Kohn et al., 2014; Qiu et al., 2008; Ruh, Rahm, Unterrainer, Weiller, & Kaller, 2012
    - Between 25% and 50% of recipients drop out or are poor responders

Gerger, Munder, & Barth, 2014; Imel et al., 2013; Schottenbauer, Glass, Arnkoff, Tendick, & Gray, 2008; Watts et al., 2013

Mindfulness might be the key

- Mindfulness interventions
  - enhance self- awareness
  - increase self-regulation of mood/emotion
  - Increase social and goal-directed behavior

Dickenson, Berkman, Arch, & Lieberman, 2013; Farb, Segal, & Anderson, 2013; Goldin, Ziv, Jazaieri, Hahn, & Gross, 2013; Goldin & Gross, 2010

- Easier to do synchronously online or app-guided

Vicarious Trauma/Vicarious Bereavement

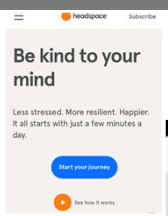
- Vicarious Trauma –
  - Internalized patient narratives
  - Triggered changes in perceptions and behavior
  - Associated with apathy, lack of creativity, insensitivity and hypervigilance
- Vicarious Bereavement – (Robert Kastenbaum, 1987)
  - Type 1 –
    - Intense grief
    - Deep empathy and sadness for the mourner's loss
    - Grief identified as "what the mourner might be feeling"
  - Type 2 –
    - A sense of personal loss
    - Loss of ability to function normally or fundamental change in belief

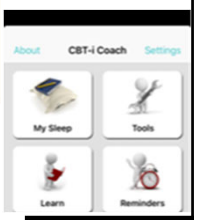
Post-traumatic Growth

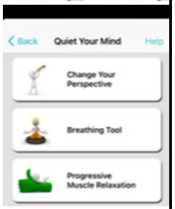
- Making meaning from the tragedy
  - NOT resilience NOT bouncing back
  - It is the Phoenix
  - Growth, not in spite of your trauma, **but BECAUSE of it.**
- Memorializing in some way
- Shared experience

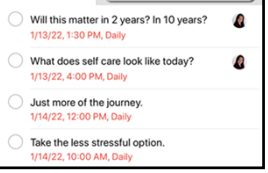
Resources

- Apps
  - Headspace – mindfulness
  - CBTi Coach – sleep support and relaxation
- The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma by Bessel van der Kolk, M.D.
- Post-Traumatic Growth Research participation https://ptgi.uncc.edu/
- Phone reminders
- Podcasts
  - The Happiness Lab – Laurie Santos, PhD
  - Nileharvest.us – "Top 30 Trauma Podcasts You Must Follow in 2021"









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Thank you

Questions?