

Treating Substance Use Disorders with a Trauma-Informed Approach

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Poll Question #1/#2

- I am familiar with trauma-informed care principles.
 - Yes / No / Not sure
- I am confident that I can implement trauma-informed principles in my practices.
 - Yes / No / Not sure

What is Trauma?

Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being.

- Trauma exposure is a widespread, ongoing public health problem
- Can be accounted for by interpersonal violence, neglect, physical or sexual abuse, war, or exposure to natural or manmade disasters
- Trauma exposure can impact individuals across the lifespan, regardless of gender, race/ethnicity, or socioeconomic standing
- Trauma is **“an almost universal experience among people with mental or substance use disorders”**

The Impact of Trauma

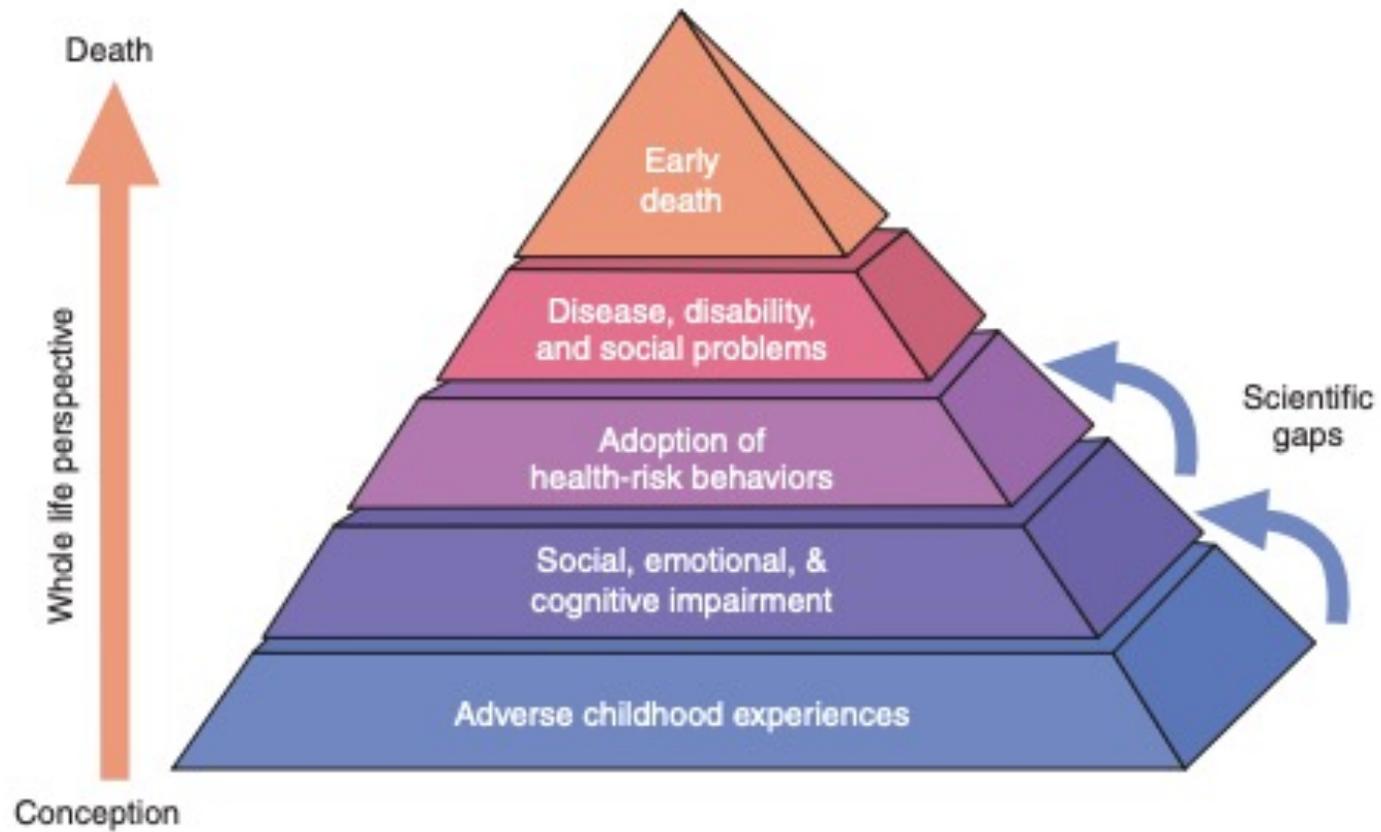


Trauma is similar to a rock hitting the water's surface. The impact first creates the largest wave, which is followed by ever-expanding, but less intense, ripples. Likewise, the influence of a given trauma can be broad, but generally, its effects are less intense for individuals further removed from the trauma; eventually, its impact dissipates all around. For trauma survivors, the impact of trauma can be far-reaching and can affect life areas and relationships long after the trauma occurred. This analogy can also broadly describe the recovery process for individuals who have experienced trauma and for those who have the privilege of hearing their stories. As survivors reveal their trauma-related experiences and struggles to a counselor or another caregiver, the trauma becomes a shared experience, although it is not likely to be as intense for the caregiver as it was for the individual who experienced the trauma. The caregiver may hold onto the trauma's known and unknown effects or may consciously decide to engage in behaviors that provide support to further dissipate the impact of this trauma and the risk of secondary trauma.

Trauma-Informed Care – History/Background

- Posttraumatic stress disorder (PTSD) first appeared as a diagnosis in the Diagnostic and Statistical Manual of Mental Disorders, 3rd ed. (DSM-III) in 1980
 - Since then, there has been a considerable shift/expansion of knowledge related to trauma-related disorders
- More recently, landmark studies shifted the paradigm related to trauma-informed practice and trauma-informed care
 - Adverse Childhood Experiences Study

The Adverse Childhood Experience (ACEs) Study



The Adverse Childhood Experience (ACEs) Study (continued)

- More than half of respondents (n = 9,508) reported at least one, and one-fourth reported more than 2 categories of adverse childhood experiences
 - 6.2% of respondents endorsed 4 or more adverse childhood experiences
- In general, a dose-response relationship was found between adverse childhood experiences and a variety of health risk factors and health behaviors

The Adverse Childhood Experience (ACEs) Study (continued)

Health problem	Number of categories	Sample size (N) ^a	Prevalence (%) ^b	Adjusted odds ratio ^c	95% confidence interval
Alcohol use disorder	0	3,841	2.9	1.0	Referent
	1	1,993	5.7	2.0	(1.6–2.7)
	2	1,042	10.3	4.0	(3.0–5.3)
	3	586	11.3	4.9	(3.5–6.8)
	4 or more	540	16.1	7.4	(5.4–10.2)
	Total	8,002	5.9	—	—
Ever used illicit drugs	0	3,856	6.4	1.0	Referent
	1	1,998	11.4	1.7	(1.4–2.0)
	2	1,045	19.2	2.9	(2.4–3.6)
	3	589	21.5	3.6	(2.8–4.6)
	4 or more	541	28.4	4.7	(3.7–6.0)
	Total	8,029	11.6	—	—
Ever injected drugs	0	3,855	0.3	1.0	Referent
	1	1,996	0.5	1.3	(0.6–3.1)
	2	1,044	1.4	3.8	(1.8–8.2)
	3	587	2.3	7.1	(3.3–15.5)
	4 or more	540	3.4	10.3	(4.9–21.4)
Had 50 or more sexual partners	Total	8,022	0.8	—	—
	0	3,400	3.0	1.0	Referent
	1	1,812	5.1	1.7	(1.3–2.3)
	2	926	6.1	2.3	(1.6–3.2)
	3	526	6.3	3.1	(2.0–4.7)
	4 or more	474	6.8	3.2	(2.1–5.1)
Ever had a sexually transmitted infection	Total	7,138	4.4	—	—
	0	3,848	5.6	1.0	Referent
	1	2,001	8.6	1.4	(1.1–1.7)
	2	1,044	10.4	1.5	(1.2–1.9)
	3	588	13.1	1.9	(1.4–2.5)
	4 or more	542	16.7	2.5	(1.9–3.2)
Total	8023	8.2	—	—	

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258.

Adverse Childhood Experiences – Where Are We Now?

- Recent study evaluated Behavioral Risk Factor Surveillance System (BRFSS) data (n = 214,157)
- Evaluated 8 categories of adverse childhood experiences
- High rates of adverse childhood experiences
 - About 61% of respondents reported at least one adverse childhood experience
 - About one-quarter of respondents endorsed three or more adverse childhood experiences
- Adverse childhood experiences disproportionately were seen in
 - People of color
 - Those with less than high school education
 - Those who were unemployed or disabled
 - LGBT persons
 - Those with lower annual income

Adverse Childhood Experiences – Where Are We Now? (continued)

- A recent meta-analysis examined adverse childhood experiences and health outcomes with 37 studies across over 250,000 participants
- Exposure to adverse childhood experiences increased odds of a variety of health outcomes, with moderate and strong associations between adverse childhood experiences and alcohol and drug use, respectively
 - Adverse childhood experiences increased odds of at-risk alcohol use by about 5.8 times
 - Adverse childhood experiences increased odds of drug use by about 10.22 times

Adverse Childhood Experiences – Where Are We Now? (continued)

- A recent study utilizing data from the National Longitudinal Study of Adolescent to Adult Health (n = 11,279)
- Physical, emotional, and sexual abuse were included as variables
- Every one-unit increase in the adverse childhood experience scale was associated with
 - 34% higher odds of developing alcohol use disorder in adulthood
 - 47% higher odds of developing cannabis use disorder in adulthood
 - 41% higher odds of developing a drug use disorder in adulthood

Adverse Childhood Experiences – Where Are We Now? (continued)

- A recent study interviewed individuals seeking treatment for opioid detoxification (n = 457)
 - Age of first opioid use
 - Last month injection drug use
 - Lifetime history of opioid overdose
 - Ten-item adverse childhood experience questionnaire
- Every one-unit increase in adverse childhood experience exposure was associated with
 - 1.1 increase in odds of injection drug use and likelihood of experiencing an overdose
- Scores on the adverse childhood experience questionnaire were inversely associated with age of first opioid use

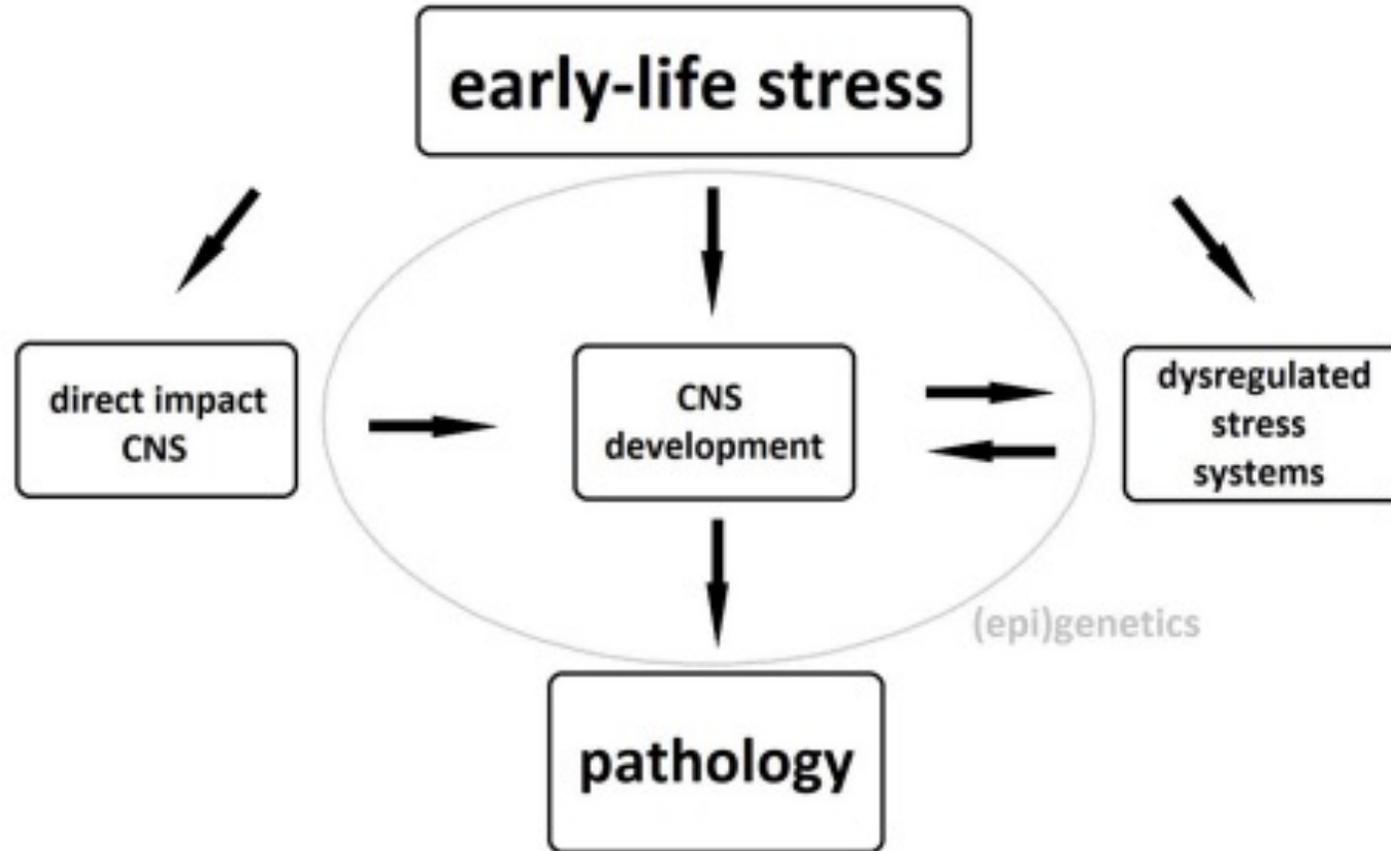
Neurobiology of Trauma and Toxic Stress

- Adverse childhood experiences or traumatic exposures activate the body's sympathetic nervous system or stress response system
 - “Fight, flight, or freeze” response
- Neuroendocrine shifts can disrupt optimal brain growth and functioning
- Downstream effects can result in disruption of overall systemic homeostasis
 - Inflammation
 - Activation of disease pathways

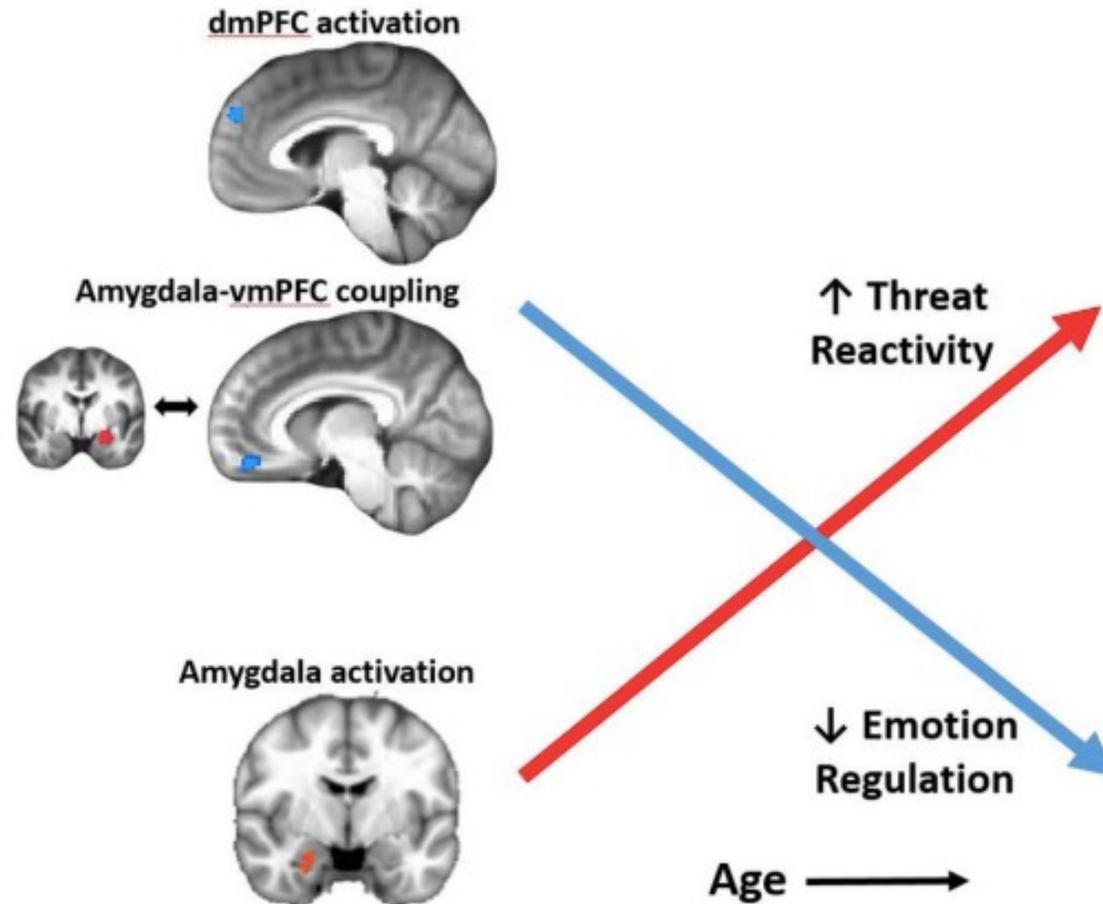
Neurobiology of Trauma and Toxic Stress (continued)

- Positive stress
 - Physiological state that is brief in duration and mild in magnitude
 - Should result in a return to baseline status
 - Developmentally appropriate
- Tolerable stress
 - Nonnormative experiences with greater magnitude or intensity
 - Can result in activation of stress response, although this can be buffered by social support systems or coping strategies
- Toxic stress
 - Strong, frequent, or prolonged activation of stress response systems in the absence of the buffering protection of a supportive relationships

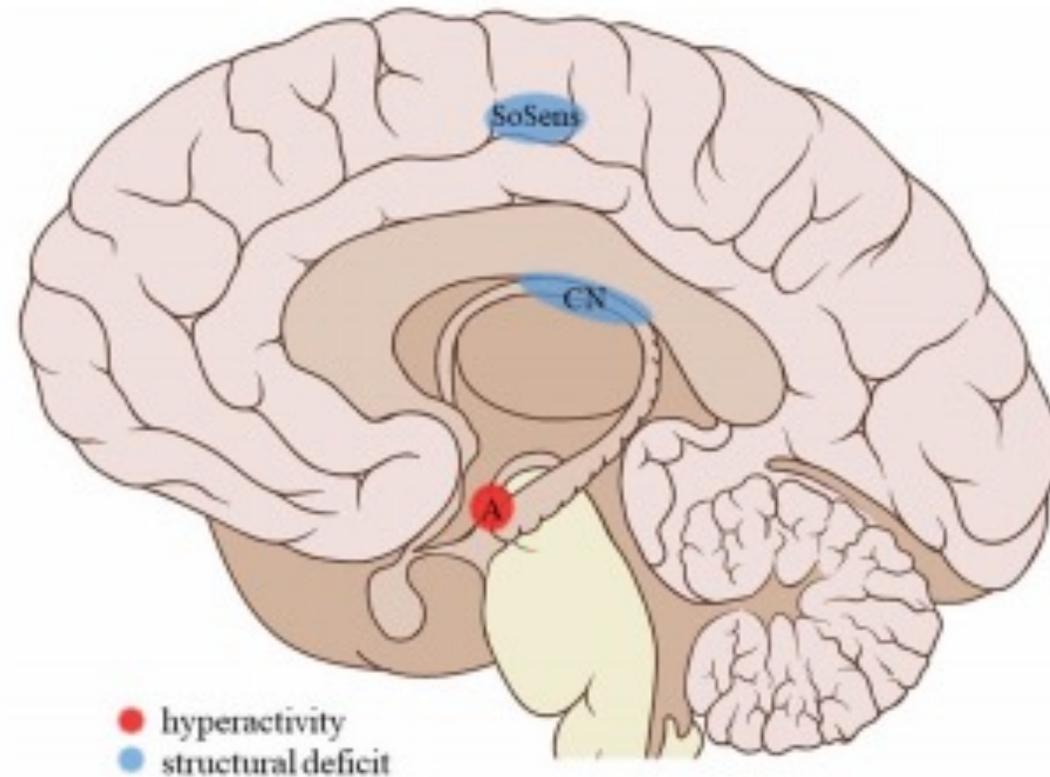
Neurobiology of Trauma and Toxic Stress (continued)



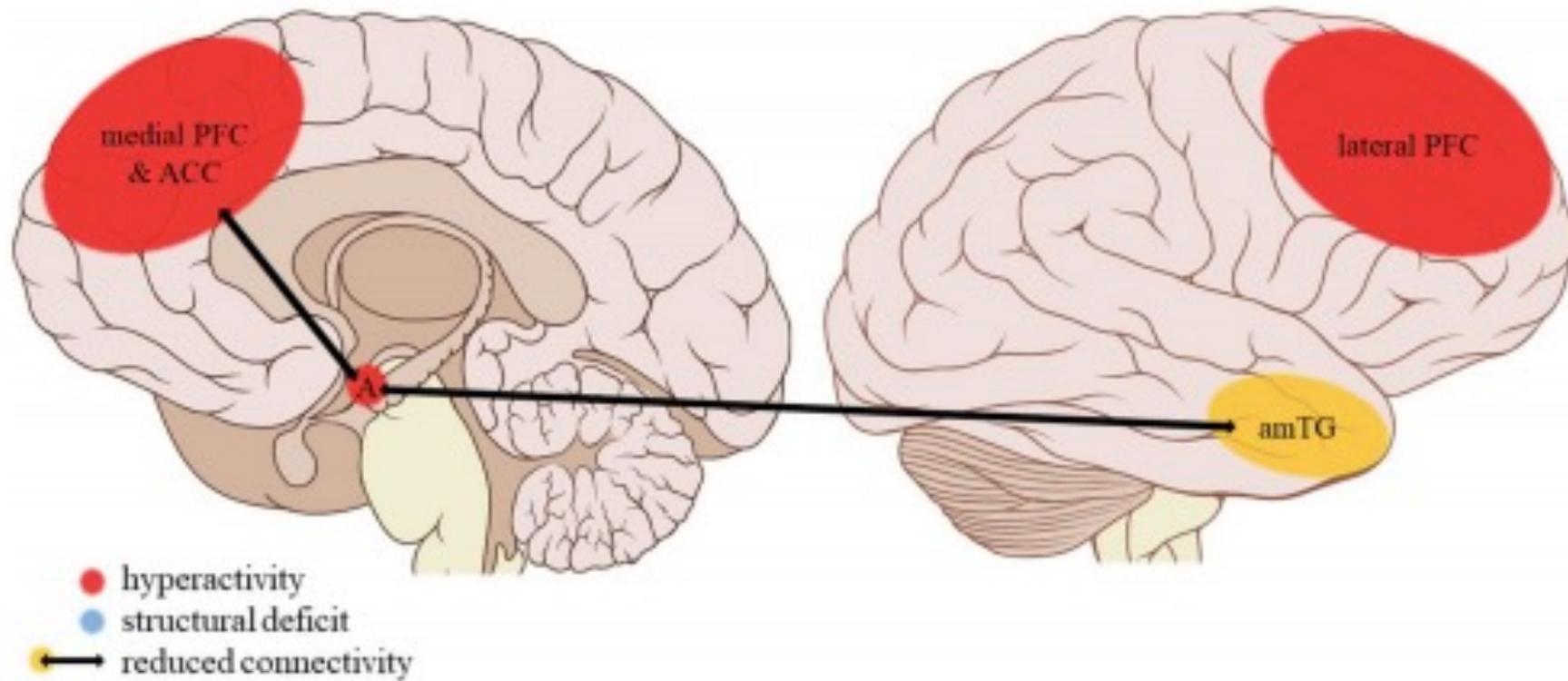
Neurobiology of Trauma and Toxic Stress (continued)



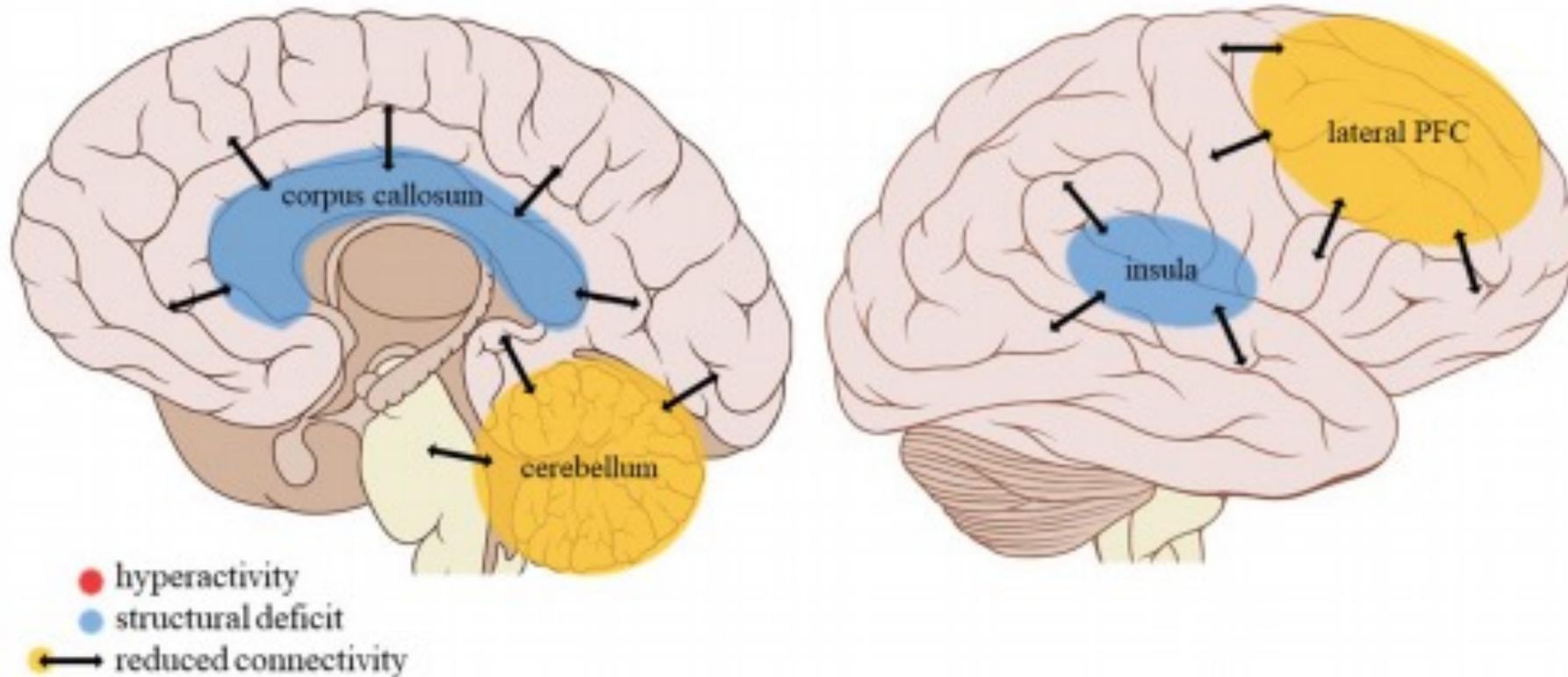
Neurobiology of Trauma and Toxic Stress (continued)



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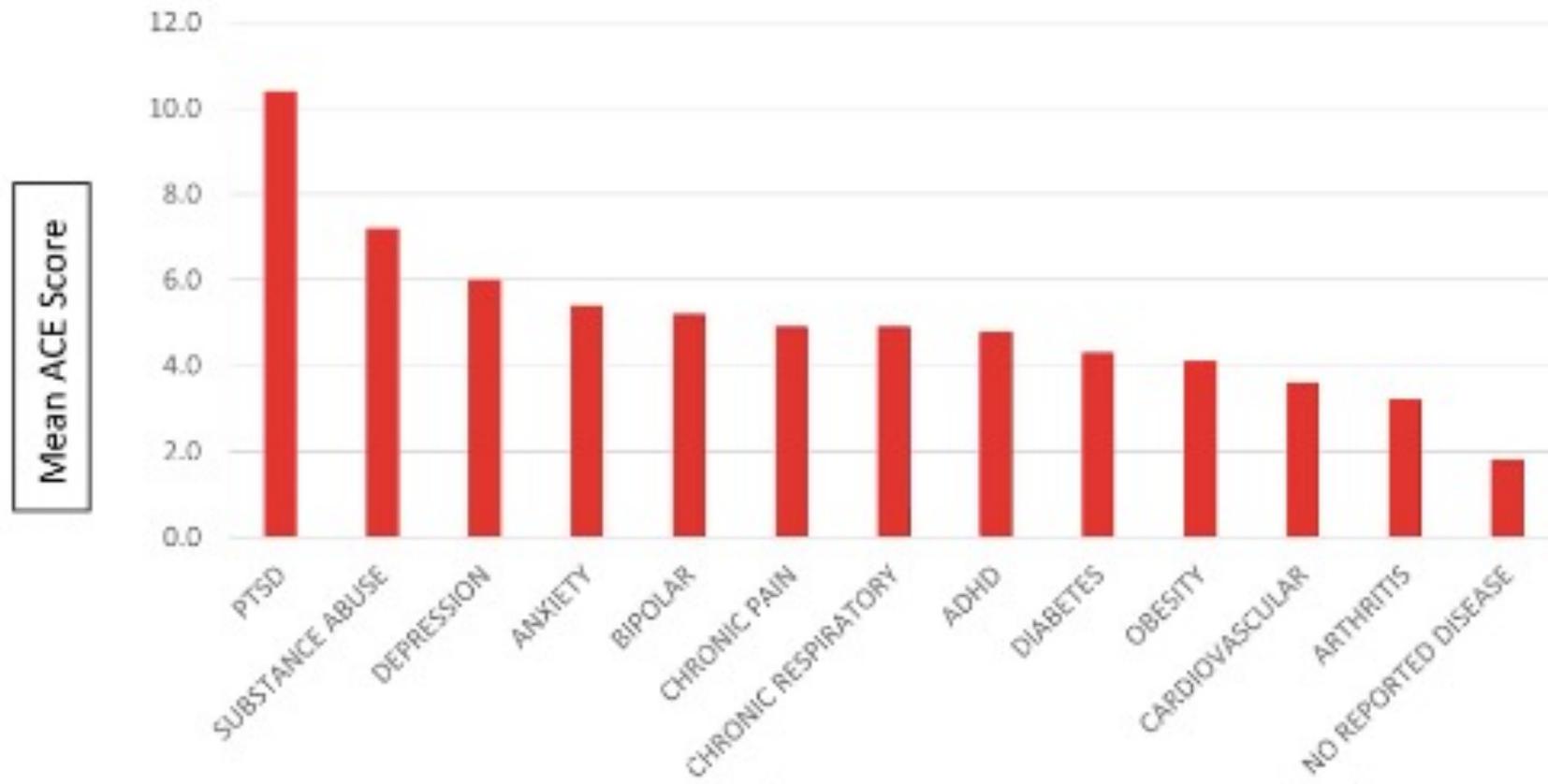
Neurobiology of Trauma and Toxic Stress (continued)

- There is also a dose-dependent response to trauma exposure, with greater cumulative numbers of trauma exposures associated with a greater number of and greater severity of both physical and mental health comorbidities throughout the life span.
- Adverse childhood experiences, are thought to result in epigenetic changes, including changes to telomeres and mitochondrial DNA, which can mediate endocrine dysfunction and subsequent chronic health conditions

Campbell, J. A., Walker, R. J., & Egede, L. E. (2016). Associations between adverse childhood experiences, high-risk behaviors, and morbidity in adulthood. *American Journal of Preventive Medicine*, 50(3), 344-352

Ridout, K. K., Khan, M., & Ridout, S. J. (2018). Adverse childhood experiences run deep: toxic early life stress, telomeres, and mitochondrial DNA copy number, the biological markers of cumulative stress. *Bioessays*, 40(9), 1800077.

Neurobiology of Trauma and Toxic Stress (continued)



Posttraumatic Stress Disorder

- A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:
1. Directly experiencing the traumatic event(s).
 2. Witnessing, in person, the event(s) as it occurred to others.
 3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
 4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse).

Posttraumatic Stress Disorder (continued)

- B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).
 2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).
 3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)
 4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
 5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

Posttraumatic Stress Disorder (continued)

- C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:
1. Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
 2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

Posttraumatic Stress Disorder (continued)

- D. Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
1. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).
 2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., “I am bad,” “No one can be trusted,” “The world is completely dangerous,” “My whole nervous system is permanently ruined”).
 3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
 4. Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).
 5. Markedly diminished interest or participation in significant activities.
 6. Feelings of detachment or estrangement from others.
 7. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

Posttraumatic Stress Disorder (continued)

- E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
1. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.
 2. Reckless or self-destructive behavior.
 3. Hypervigilance.
 4. Exaggerated startle response.
 5. Problems with concentration.
 6. Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

Posttraumatic Stress Disorder (continued)

- F. Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.
- G. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- H. The disturbance is not attributable to the physiological effects of a substance (e.g., medication, alcohol) or another medical condition.

Specify: With dissociative symptoms: The individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

- Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).
- Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

Principles of Trauma- Informed Care

Safety

Trustworthiness and transparency

Peer support

Collaboration and mutuality

Empowerment, voice and choice

Cultural, historical, and gender issues

Safety

- Staff and clients must feel physically and psychologically safe within health care settings
- Physical setting is safe and interpersonal interactions promote a sense of safety
- Understanding safety from the perspective of clients
- Facilitation of a predictable, consistent health care environment that avoids re-traumatization.
- Invasive medical procedures or certain aspects of the physical examination may be triggering or retraumatizing for those with a trauma history and should be used only when necessary.
- Healthcare providers should explain all aspects of such procedures or examinations, not only before the intervention but also throughout

Trustworthiness and Transparency

- Goal of building and maintaining trust with clients and family members, in addition to staff
- Building rapport is essential
- Following through and delivering on promises
- Assuring consent or assent, as appropriate
- Clearly defining expectations for care at the onset of care delivery

Peer Support

- Peer support or mutual self-help groups can be paramount for those with a history of trauma
- Can assist in establishing safety and hope; building trust; enhancing collaboration; and promoting recovery and healing
- Positive peer experiences are associated with a reduction in trauma-related symptoms

Collaboration and Mutuality

- Importance is placed on partnerships between staff and clients
- Recognition that everyone plays a role in the delivery of trauma-informed care
 - “One does not have to be a therapist to be therapeutic.”
- Emphasis on shared power and shared decision-making

Empowerment, Voice and Choice

- Individual strengths and experiences are recognized and built upon
- Emphasis on resiliency and healing
- Clients are encouraged to set their own goals and are key agents in health decision making

Cultural, Historical, and Gender Issues

- Staff must actively seek to move past cultural stereotypes and biases
- Must be aware and active in addressing implicit biases
- Incorporation of interventions that are grounded in cultural beliefs, when appropriate and safe
- Recognition of gender differences and how they might relate to trauma exposure
- Recognition of historical, transgenerational trauma

Trauma-Informed Care – Practical Implications

Table 1. A model for trauma-informed primary care		
Key Elements	TIC	TIPC
Recognition	Recognition of trauma history	Screening and trauma recognition: In a calm and empathic manner, ask about exposure to trauma. Acknowledge that disclosure is difficult and that the patient may disclose when comfortable.
Realization	Trauma influences individuals, their environment, social network, and treatment	Understanding the health effects of trauma: Empower the patient by education about the effects of trauma on health and health-related behaviors.
Response	Patient-centered and controlled care	Patient-centered communication and care: Patients are in control of their care and decisions about their health.
Respect	Respect for emotional safety; avoiding re-traumatization	Emphasize emotional safety and avoid triggers: Identify examinations and procedures that may result in anxiety, flashbacks, or other re-traumatization and create care that is acceptable to the patient.
Resilience	Base care approach on individual strengths	Knowledge of helpful treatment for trauma patients: Recognize individual strengths in managing health. Encourage resilience by focusing on positive aspects of patients' lives (what is going well) to reduce physical and psychological symptoms and improve disease management.

Note: TIC = trauma-informed care; TIPC = trauma-informed primary care.

Trauma-Informed Care – Practical Implications (continued)

Table 1. Three-phase approach to ACE screening

Phase	Sample wording
1. Provide information about why you are screening for childhood experiences.	<i>"We know that childhood experiences may have a long-term effect on adult health."</i>
2. Ask about childhood adversity in a clear, concise, nonjudgmental manner.	<i>"Did you experience hardship or abuse when you were a child? For example, did you live in poverty, live with a family who abused substances, experienced physical, psychological abuse, and/or neglect."</i> If the patient responds yes, but seems hesitant to talk about their childhood, use follow-up questions. For example, "Tell me more about your experience," or "If you feel comfortable sharing your experiences, I am ready to listen."
3. Respond with compassion.	<i>"I am sorry/sad this happened to you."</i> <i>"How do you think this has affected your health?"</i> <i>"Would you like to discuss this further with someone?"</i> Offer a follow-up visit or referral to counseling. If the patient reports no childhood hardships or abuse, say simply, "Thank you for answering."

Trauma-Informed Care – Practical Implications (continued)

- Remain calm
 - Consider how you are feeling when you are caring for someone. Utilize deep breathing techniques to calm yourself, if necessary. Model calmness for patients, yourself, and coworkers
- Contain
 - Limit trauma history detail to maintain emotional and physical safety. Provide resources that do not require redisclosure of trauma.
- Care
 - Practice self-care and self-compassion while caring for others
- Cope
 - Emphasize coping skills and resilience building strategies

Trauma-Informed Care – Practical Implications (continued)

- Integrating in substance use treatment settings
 - Trauma-informed care fits seamlessly in the context of harm reduction strategies
- Sterile needle exchange programs
- Medications for addiction treatment
 - Including long-acting formulations
- Recognition/treatment of dual diagnoses and use of medications as a coping mechanism
- Procurement of urine drug screens

Trauma-Informed Care – Practical Implications (continued)

- Organizational support
- Intersectoral service integration
 - Consideration of problem-solving courts
- Staff/provider awareness of trauma
- Building a safe environment
- Quality of provider-patient relationship
- Staff/provider support

Trauma-Informed Care – Practical Implications (continued)

- View trauma in the lens of one's lived environment
- Complex PTSD can develop in response to prolonged, repeated experience of interpersonal trauma in a context in which the individual has little or no chance of escape.
 - associated with chronic abuse, neglect, intimate partner violence, kidnapping, hostage situations, slavery/human trafficking, sweatshop workers, prisoners of war, concentration camp survivors, residential school survivors, and defectors of cults.
 - Symptoms can include prolonged feelings of terror, worthlessness, helplessness, and deformation of one's identity and sense of self.
- Researchers concluded that C-PTSD is distinct from, but similar to: PTSD, somatization disorder, dissociative identity disorder, and borderline personality disorder.
 - Its main distinctions are a distortion of the person's core identity and significant emotional dysregulation.
- This category of PTSD is not yet adopted by the American Psychiatric Association

Trauma-Informed Care – Practical Implications (continued)

- Minimize the risk of re-traumatization or replicating prior trauma dynamics
 - Consider trauma triggers – it is okay to ask!
 - Consider power dynamics/differentials – promote autonomy foremost
 - Recognize that addressing trauma may not be their priority
- Encourage recovery from trauma as a goal
- Utilize a strength-based perspective with focus on resiliency

Poll Question #2

- We utilize trauma-informed care principles in my current work setting.
 - Yes / No / Not sure

Trauma – Treatment

- Non-pharmacological interventions
 - Cognitive processing therapy
 - Eye movement desensitization and reprocessing (EMDR)
 - CBT for PTSD
 - Brief eclectic psychotherapy
 - Narrative exposure therapy
 - Mindfulness

Trauma – Treatment

- SSRIs
 - Sertraline (Zoloft) and paroxetine (Paxil) have FDA-indication for the treatment of PTSD in adults
 - Fluoxetine (Prozac) has also been demonstrated as effective
 - Citalopram (Celexa) and escitalopram (Lexapro) safe and may mitigate PTSD symptoms, but evidence is less conclusive
- SNRIs
 - Venlafaxine (Effexor) has demonstrated efficacy in treating patients with PTSD
- Atypical antipsychotics and mood stabilizers
 - Often used, although evidence is insufficient
 - Department of Veterans Affairs/Department of Defense recommend *against* use of atypical antipsychotics or mood stabilizers for uncomplicated PTSD
- Prazosin
 - Alpha-adrenergic antagonist
 - Not recommended as monotherapy for PTSD, although can be utilized to mitigate nightmares

Case Review

- Jack Smith is a 33-year-old Veteran seeking treatment for opioid use disorder. He also has comorbid posttraumatic stress disorder but is not interested in pharmacotherapy or psychotherapy at this time. His primary PTSD symptom is significant irritability and impulsivity, and this has led to some disruptive behavior at work and home.
- He is currently on probation for previous substance use-related charges. He is maintained on Suboxone 8mg/2mg TID over the past six months but has consistently provided urine drug screens that were positive for fentanyl.

Case Review

- Ultimately, he was arrested on a probation violation after being found to have heroin.
- He was taken off Suboxone while incarcerated – tapered with clonidine, not offered medication for addiction treatment thereafter
- Over the July 4th holiday, while incarcerated, he was triggered by the sound of fireworks and became irritable and verbally aggressive – subsequently was restrained by corrections officers and ultimately diagnosed with a concussion.

Case Review

- What could have been done differently to enhance trauma-informed care delivery?

Thank you!

Feel free to contact me with questions at

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