Survivors, Stress, and Substance Use:
Examining the Connection between Trauma and Substance Use Disorders
Presenter: Tiffany Cooke MD, MPH, FAPA
About ATTC

The 2017-2022 ATTC Network is comprised of:

1. Network Coordinating Office
2. 10 Domestic Regional Centers
3. 6 International HIV Centers (PEPFAR funded)

Established in 1993 by SAMHSA, the domestic ATTCs:

Accelerate the adoption and implementation of evidence-based and promising addiction treatment and recovery-oriented practices and services;

Heighten the awareness, knowledge, and skills of the workforce that addresses the needs of people with substance use and/or other behavioral health disorders; and

Foster regional and national alliances among culturally diverse practitioners, researchers, policy makers, funders, and the recovery community.
Survivors, Stress, and Substance Use: Examining the Connection between Trauma and Substance Use Disorders
Tiffany Cooke MD, MPH, FAPA, is a board certified adult psychiatrist. She received her medical training at Meharry Medical College, and completed her psychiatric residency at the University of Miami/Jackson Memorial Hospital. Dr. Cooke earned a master’s in public health policy & management while completing a fellowship in community psychiatry at Emory University.

Dr. Cooke is well versed in both psychiatry and integrated care, having worked in community settings in the areas of HIV/AIDS psychiatry, and psycho-oncology, along with providing clinical service and didactics in integrated primary care settings. She has also worked in private practice providing both patient care and consultation services. She served as the psychiatrist for the DeKalb County Mental Health, Drugs, and Veterans Treatment Courts. Dr. Cooke has also held faculty appointments at Morehouse & Emory Schools of Medicine as an Assistant Professor of Clinical Psychiatry through which she worked at Grady Hospital’s Infectious Disease Program, adult psychiatry clinic, and the Southeast Addiction Technology Transfer Center (SATTC). As an assistant professor, she was active in teaching, directing clerkships, and supervising residents & fellows.

Dr. Cooke has also provided services at Tanner Health System, Georgia State University Counseling & Testing Center, and a host of metro Atlanta community mental health centers. She has also worked in the fields of trauma and HIV/AIDS prevention & treatment in Grand Bois, Haiti. Currently, Dr. Cooke is providing inpatient psychiatry services in metro Atlanta.

She is a public speaker and behavioral health advocate, with a long standing interest in decreasing behavioral health stigma and health disparities, particularly in racial and ethnic minorities. Dr. Cooke has authored publications on various mental health topics: implicit bias, depression, bipolar disorder, and safe sex practices in women. She is a currently active in several professional societies.
Purpose:
This webinar will examine the bidirectional relationship between trauma and substance use disorders (SUDs). Environmental, biological, and psychological factors that predispose survivors to co-occurring PTSD and SUDs will be highlighted. The webinar will also discuss the various treatment options for trauma related disorders and substance use disorders.

Objectives:
• At the conclusion of this activity, participants will be able to:
• List the diagnostic criteria for Post-Traumatic Stress disorder (PTSD)
• Name at least two psychological factors leading to the co-occurrence of PTSD and substance use disorders (SUDs)
• Name at least two physiological factors leading to the co-occurrence of PTSD and substance use disorders (SUDs)
• Identify at least 2 treatment modalities for persons with co-occurring trauma related disorders and SUDs
Diagnoses & Risk Factors
Trauma & Stressor Related Disorders: Posttraumatic Stress Disorder (PTSD)

• **Exposure**: actual/threatened death, serious injury, or sexual violence

• **Intrusion**: symptoms after trauma occurrence

• **Avoidance** of stimuli assoc. w/event
Trauma & Stressor Related Disorders: PTSD cont.

• Negative Alterations in **cognitions & mood**

• Marked Alterations in **arousal & reactivity**

• Duration > **1 mo.**
Trauma & Stressor Related Disorders: PTSD cont.

- Clinically significant *impairment in functioning*

- Not due to substance or other condition
Genetic/Physiological Risk Factors: PTSD

Pretrauma:
- Women
- Younger age at time of trauma
## Environmental Risk Factors: PTSD

<table>
<thead>
<tr>
<th></th>
<th>Pretraumatic</th>
<th>Peritraumatic</th>
<th>Posttraumatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>↓SES, ↓ed, childhood adversity, minority racial/ethnic status, family psych hx</td>
<td>Severity of trauma. Perceived threat, perpetrating (military), dissociation</td>
<td>Repeated reminders, adverse life events, trauma related loss</td>
</tr>
</tbody>
</table>
## Temperamental Risk Factors: PTSD

<table>
<thead>
<tr>
<th>Temperamental</th>
<th>Pretraumatic Factors</th>
<th>Post traumatic Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Childhood emotional problems, prior mental disorders</td>
<td>Negative appraisals, inappropriate coping strategies, development of acute stress disorder</td>
</tr>
</tbody>
</table>
Substance Use Disorders (SUDs): Diagnostic Criteria

Impairment or distress: 2 of the following in 12 mo. period

Impaired Control

- Larger amounts, longer period than intended
- Unsuccessful at cutting down
- Significant time spent using, obtaining, recovering
- Cravings
SUDs  Diagnostic Criteria cont.

Social impairment
  • Use results in failure to fulfill obligations
  • Use despite social/interpersonal problems
  • Other activities reduced due use
SUDs Diagnostic criteria cont.

Risky use
- Recurrent use when physically hazardous
- Continued despite knowledge of problem

Pharmacological
- Tolerance
- Withdrawal
Genetic & Physiological Risk Factors: SUDs

- Family history
- Presence of other psychiatric disorders
Environmental risk factors: SUD’s

- Cultural attitudes towards use
- Availability
- Acquired personal experiences
- Stress levels
- Peer use
- Exaggerated personal expectation of effect
- Suboptimal coping with stress
- Academic failure
- Tobacco smoking
- Low SES
Temperamental Risk Factors: SUDs

• Hx of conduct, antisocial disorders
• Hx bipolar impulsivity, novelty seeking
• Hx of schizophrenia, substance use disorders
“What’s the Science Behind It?”
Dopamine

Pleasure
Reward
Reinforcement
Adrenaline Effects/Noradrenaline (NE)

- Rapid respirations
- Muscle tension
- ↑ HR
- ↑ BP
- Digestion inhibited
- Dilated pupil
- osteoporosis
- Sweating
- Tremor
- Altered immune response
Prefrontal Cortex

- Attention
- Awareness
- Decisions
- Conscious Behavior
- Assigns emotional significance to events
- Modulates emotions
- Correct dysfunctional reactions
GABA

- ↓ Anxiety
- ↓ Inflammation
- Improves Sleep
- ↓ Depression
- ↑ Levels of GH
- Improves Focus: ADHD
- PMS relief
Summary : PTSD

• ↑↑↑ adrenaline (NE) → Fight or Flight
  • Hyperarousal, Hypervigilance, Sleep disruption

• ↓ GABA → ↓ “natural tranquility”
  • Depression, anxiety, insomnia

• Hyperactive amygdala & Hyporeactive PFC
  • Prolonged activation of fight or flight
  • Reactive anger, impulsiveness, motor activity
  • Increased negative emotions
Summary: SUDs

• Chronic use makes brain regulation of GABA, DA, adrenaline difficult:
• Withdrawal, anxiety, depression, irritability, dependence
• Potentiates trauma, and use, cycle continues,
• PTSD heightens withdrawal sx
Cyclical Relationship

• Substances: temporary respite, worse PTSD sx when withdrawing, complicates cessation
• Substance use alters decision making, ↑risk of subsequent trauma
• Substance use delays treatment progress, PTSD sx remission
Psychological distress, shame, trauma

Self-medicating w/ drugs; substance use for curiosity, stress, etc.

↑ Psychological distress, shame, trauma, ↓ coping skills

Consequences worsen, harder to resolve

↑ Drug use, tolerance

Consequences: loss of job, relationships, health, etc.,
Treatment
Seeking Safety

• ~25 60-90 min sessions
• decreasing risky behaviors
• setting boundaries
• coping with substance triggers
Prolonged Exposure

• Typically 8-15 weekly sessions
• Gradual confrontation of fearful stimulus
• Imaginal: trauma described & recorded, emotion processed, recording replayed, emotions activated in safe context
• In vivo: repeated engagement in avoided situation or activity, proving it non-dangerous
Eye Movement Desensitization & Reprocessing (EMDR)

• 8 phases
• Desensitization: recall trauma, track therapist finger movements with eye
• Reformulation of negative beliefs
• ↓ hyperarousal
• Seek provider with certification
Transcend

• Veterans
• Follows SUD treatment
• 12 week
• PHP
• Psychodynamic
• CBT
• 12 step
Other Therapeutic Treatments

• Rehab
• 12 step
• CBT
• Peer support
Lifestyle modifications

• Spirituality
• Meditation
• Exercise
• Diet
• Hobbies
• Accountability partner
Pharmacologic Treatment

• Detox

• Medication Assisted Treatment (MAT): cravings, use
  • Opioid: methadone, buprenorphine, naltrexone
  • Alcohol: disulfiram, acamprosate, naltrexone
Pharmacologic Treatment (cont.).

- Antidepressants: trauma, depression, anxiety
  - SSRIs (Sertraline*, Paroxetine, Fluoxetine, etc.)
- Anxiolytics: anxiety
  - non-benzodiazepine: hydroxyzine, buspirone
- Antipsychotics: nightmares, flashbacks, impulsivity
  - Risperidone, Quetiapine, Aripiprazole, Ziprasidone, etc.
- Prazosin
- Topirimate
References


QUESTIONS
Contact Info

Tiffany Cooke, MD, MPH, FAPA
Innovations Behavioral Health, LLC
227 Sandy Springs Pl, Suite D-405
Sandy Springs, GA 30328
(678) 744-7520
innovationsbhinfo@gmail.com
Southeast ATTC
National Center for Primary Care
Morehouse School of Medicine
720 Westview Drive SW - Atlanta, Georgia 30310-1495
Phone: (404) 752-1016 - Fax: (404) 752-1026
Email: sattcinfo@msm.edu