Adverse Childhood Experiences-Opioid Addiction and Trauma Informed Care

CSAM State of the Art: Addiction Medicine
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CONFLICT OF INTEREST DISCLOSURE

I Karen L. Hill have nothing to disclose, and I will not be discussing “off label” use of drugs or devices in this presentation.

EDUCATIONAL OBJECTIVES

After attending this presentation, participants will be able to:

1. Define adverse childhood experiences (ACEs)
2. Describe how ACEs and trauma increases risk for substance use disorders for incarcerated persons
3. Discuss key principles of trauma-informed correction care.

"The sufferings of childhood can shape, and misshape, the life of an adult" .

T. Morrison (2011)

SOCIAL DETERMINANTS OF HEALTH (SDOH)

Core Domains of SDOH:

- Social and Racial-Ethnic Inequities
- Housing
- Food Insecurity
- Transportation
- Social Isolation/Loneliness
- Trauma (ACEs)

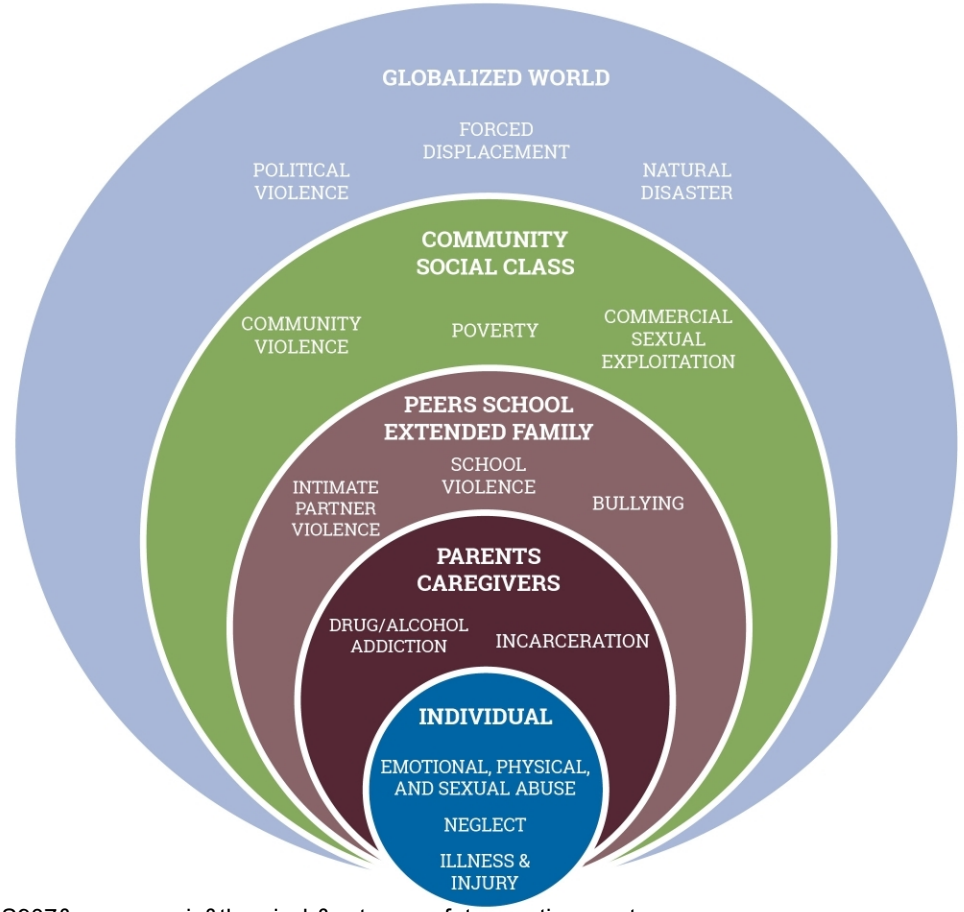
WHAT IS TRAUMA?

"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."

SAMHSA, 2014

SPECTRUM OF TRAUMA:
CONTEXT

- HISTORICAL TRAUMA
- INSIDIOUS TRAUMA
- COMPASSION FATIGUE
- VICARIOUS TRAUMA
- SECONDARY TRAUMA
- TOXIC STRESS
- COMPLEX TRAUMA
- CHRONIC TRAUMA
- ACUTE TRAUMA
- ACEs



www.google.com/search?rlz=1C1GCEA_enUS907US907&source=univ&tbm=isch&q=types+of+traumatic+events

ADVERSE CHILDHOOD EXPERIENCES STUDY

1990's Anda & Felitti CDC Epidemiologist & Kaiser Preventative Medicine MD

Set out to determine in a **general population** the prevalence of early adversity and effect on life course

17,337 Kaiser Health Plan member

Middle Class, mostly White (75%) and college educated (75%) , 95% > 30 yrs. of age

ADVERSE CHILDHOOD EXPERIENCES

- Family violence
- Parental divorce
- Parental mental illness
- Physical/sexual abuse
- Emotional abuse
- Neglect
- Parental SUD
- Imprisonment of a parent
- Food insecurity
- Housing instability

THE PROBLEM

75% of opioid and substance users have histories of ACEs and trauma (CTIPP, 2017)

↑ ACEs scores in OUDs patients had earlier age onset of use, IDU, lifetime overdose (Stein et al., 2017)

3> ACEs strong mental illness, sexual risk taking, alcohol, SUDs [opioids, stimulants], self directed violence (Hughes et al., 2017)

Young OUDs patients and with early exposure to drugs had ↓ executive function,↑ personality disorders (Parolin et al., 2016)

THE PROBLEM

Both physical and sexual abuse survivors were at 2x's as likely to be using drugs than those who experience either alone

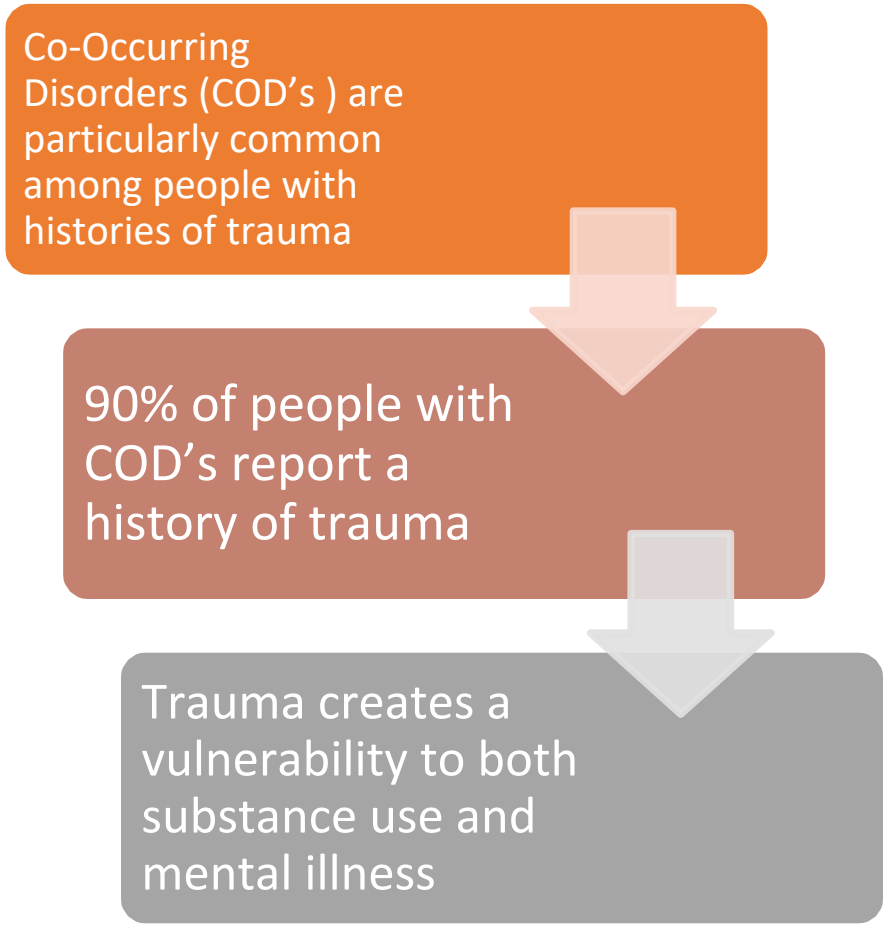
↑ACEs and non-RX opioid use and dysregulation of stress response is linked with sensation seeking, and internal and external disorders (Quinn et al., 2019)

Sexual abuse survivor are three times more likely to begin drinking during adolescence

THE PROBLEM

- ↑ACEs, the risk for early initiation of substance abuse increased 2-4X >
- 5> ACEs have 7-10X greater for substance abuse.
- 2/3rds of injection drug use can be attributed to abusive and traumatic childhood events.
- 12.2X as likely to attempt suicide

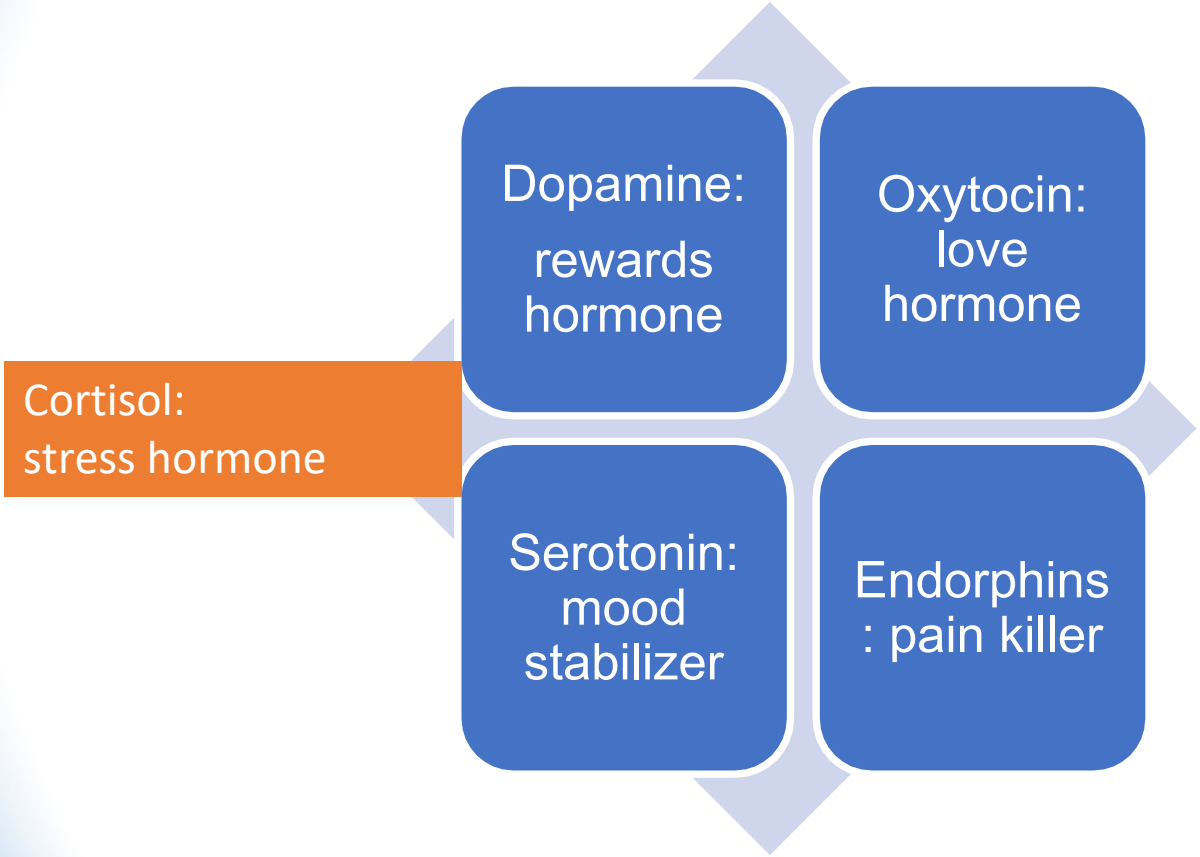
TRAUMA and OPIOID USE DISORDER



ACEs, TRAUMA and the NEUROBIOLOGY

- Genetics may play a role in addiction
- Genetic potential is affected by the environment
- Epigenetics: modifications in gene expression
- The early environment influences the expression of genes
- Stress hormones and hyperarousal are thought to shorten telomeres, reduce connections in brain
- Environments fine tunes brain chemistry, e.g., cells bathed in cortisol change and may affect the host

HORMONES AND CHEMICALS



PHYSIOLOGY OF EARLY ATTACHEMENT

- Endorphins are endogenous opioids neuropeptides and hormones produced in brain and pituitary glands (*feel good chemicals*)
- Role in early attachment between a parent and a child.
- Essential for parental love and bonding in infancy.
- Positive relationships cause the release of natural opioids in the baby's brain.
- Opioids attach to opioid receptors which leads to the release of dopamine

ATTACHMENT AND BONDING

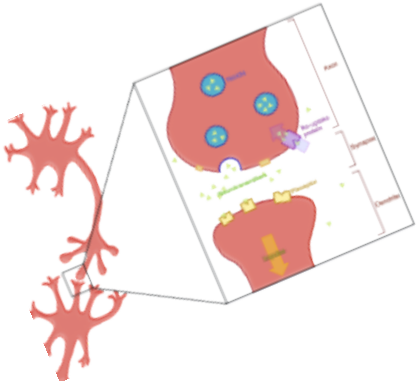
- Insecure attachment disrupts the system.
- Lack of a stimulating relationship in infancy reduces opioid receptors in the brain.
- Deprivation of contact with the mother during the first weeks of life leads to permanent disruption
- In animal studies resulted in greater propensity to self-administer cocaine.

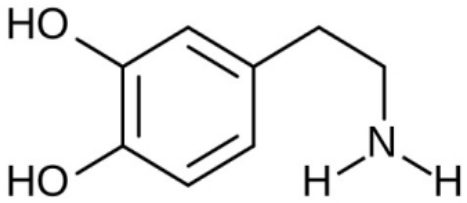
RELATIONSHIP TO ADDICTION

- Brains of people with SUDs have a ↓number of (reward -motivation) receptors in the brain.
- Alcohol, opioids, and stimulants act on this system in the brain
- All cause a massive increase in dopamine in the brain
- Drug-induced euphoria

TRAUMA, DOPAMINE AND OPIOIDS

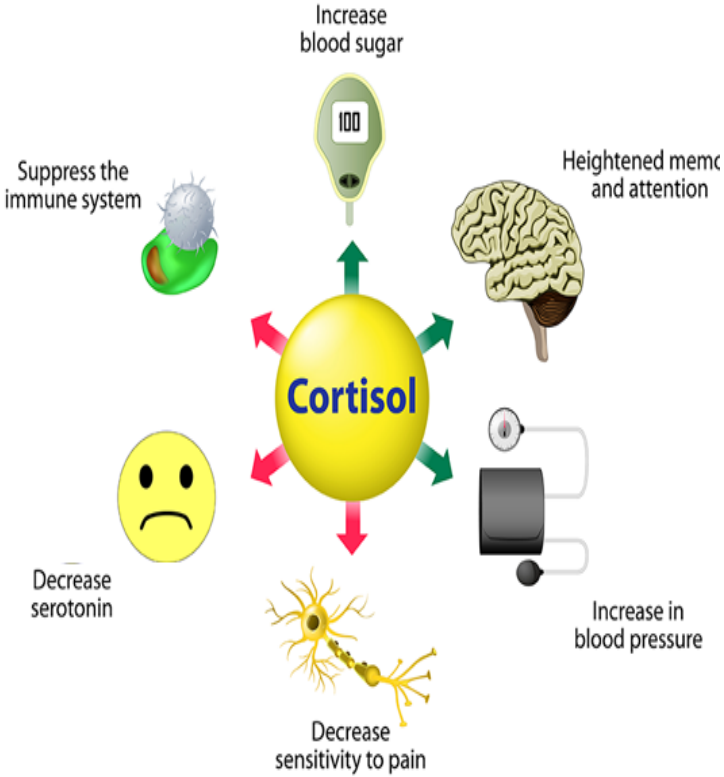
- Opioids cause a temporary increase in the amount of dopamine in the brain.
- Research strongly suggests that the existence of a lower number of brain dopamine receptors may be one of the biological bases of addiction.





Dopamine

TRAUMA AND CORTISOL



- Early trauma overload of cortisol stress hormone
- Protective mechanisms turn deadly
- Damages dopamine system
- Affects the hippocampus
  - Memory
  - Processing emotion

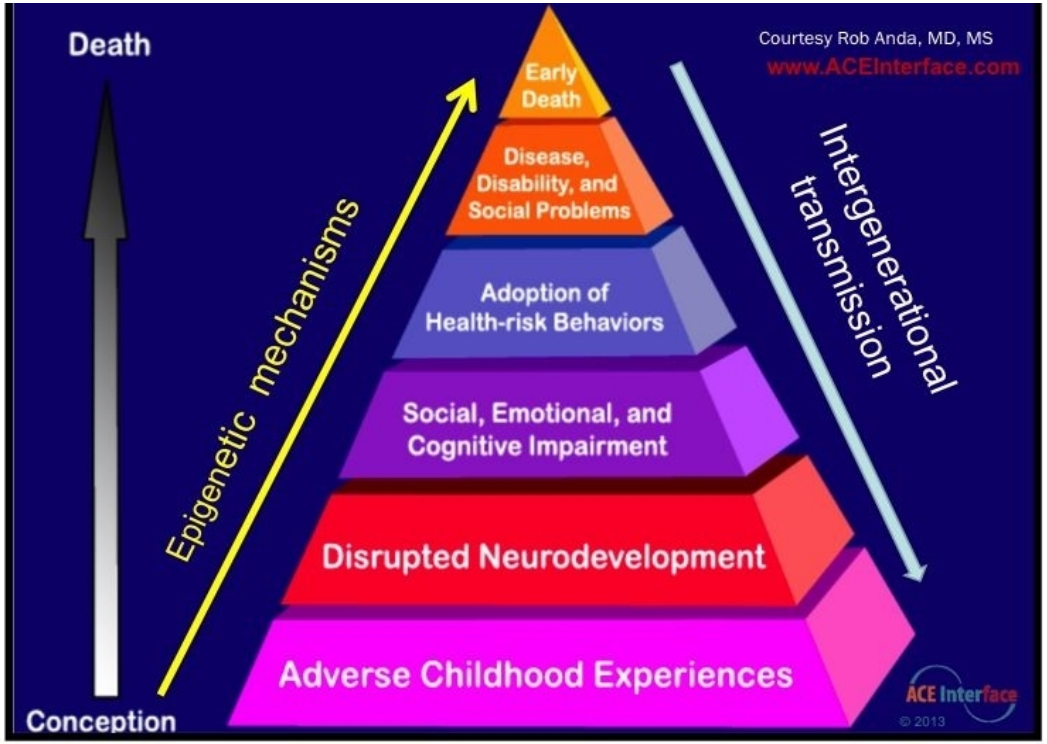
ACEs, STRESS, and TRIGGERS

- Unpredictability
- Sudden change/transitions
- Loss of control
- Feeling vulnerable
- Rejection
- Loneliness
- Confrontation
- Intimacy
- Sometime praise or positive attention

WHAT WE SEE

- Hypervigilance
- Lack of ability to handle new stress
- Easily triggered
- Hypervigilance /magnified startle
- Memory problems
- Attention seeking behavior
- Mental health disturbances
- Missed appts.
- Difficulties performing routine functions
- Unkempt, disheveled appearance
- Passive or abusive behavior
- Poor concentration/pre-occupation
- Self-injury or thoughts
- **Polysubstance and relapse**

ADVERSE CHILDHOOD EXPERIENCES PYRAMID



STIGMA

Learning about MAT treatment outside the context of stigma:

- May be unaware of how stigmatizing reactions effect their ability to provide unbiased services for those with SUDs

- May be unaware of stigmatizing policies and procedures affect clients

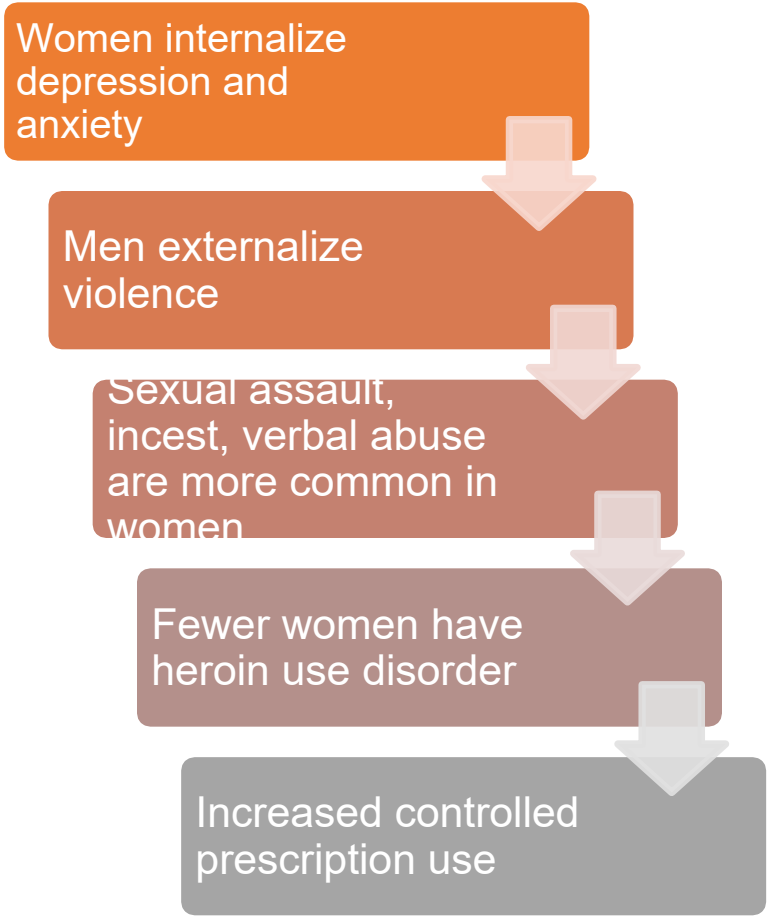
FURTHERMORE…

Understanding SUDs as a medical disorder mapped to brain functioning– versus solely a behavioral problem–

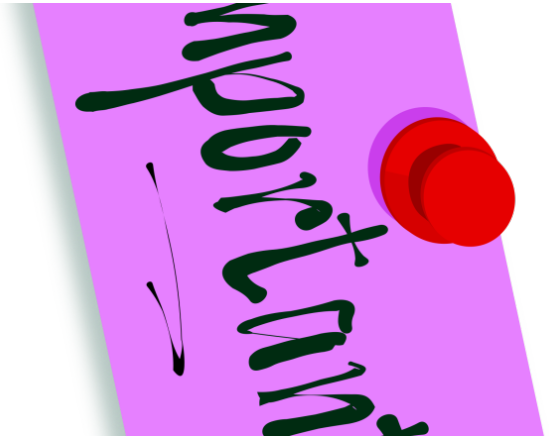
Increases awareness of the legitimate health need and reduces unhelpful moralizing and stigma.

Considering a patient in terms of social determinants of health also reduces stigma.

Gender Differences



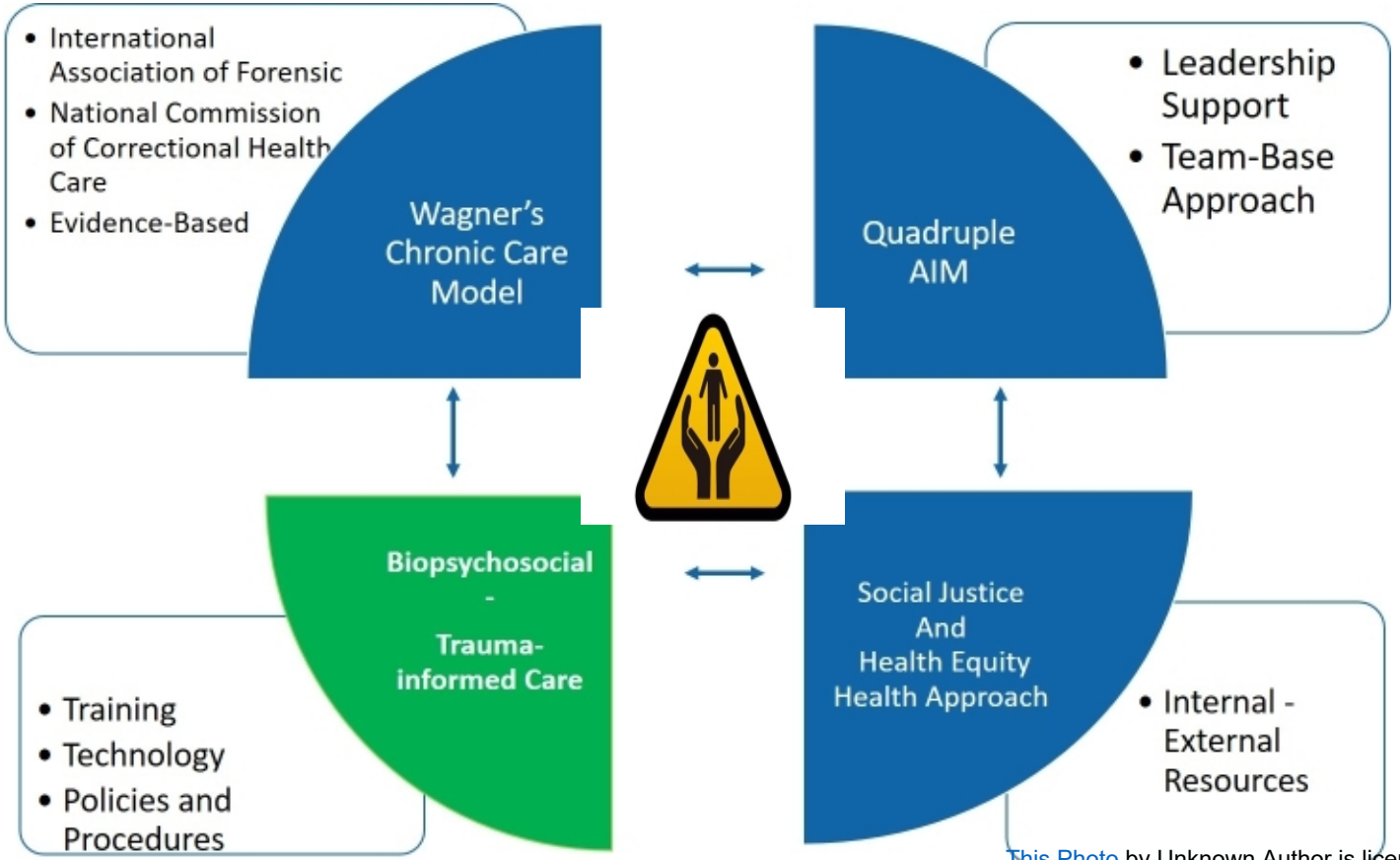
- Differences are influenced by biology
- Differences based on culturally defined gender roles
- Differences in how women and men use substances and react to substances.
  - *Women use drugs in smaller amounts than men, but they can experience the effects more strongly*
  - *Substance use in women tends to develop into addiction more quickly than in men.*
- Treatment obstacles exist before, during and/or after pregnancy because of social or legal fears.
  - *Lack of childcare while in treatment.*
- Treatment programs should offer childcare, job training, and parenting classes.



ASSUMPTIONS

- Justice involved individuals have more early life adversity and trauma
- Substance use is often a coping strategy for unaddressed trauma
- Staff want evidence-based guidelines and improved outcomes

Correctional Health Framework



Principles

- Gender
- Environment
- Equity
- Relationships

Hands picture from PowerPoint Stock Photos

INTERVENTIONS

- Leverage Strengths
- Follow through, model trust, maintain boundaries,
- Emphasizes choice and informed consent

Good eye contact, give explanations for policies and procedures
Say “hello” and “goodbye”
Refer to people by “Ms. XXX”

Policies of same-sex only searches

Remember women’s health exams can re-traumatizing

Move and speak quietly when possible

INTERVENTIONS

- High quality sleep
- High quality food- minimally processed
- Regular physical activity and exercise
- Mindfulness and relaxation

- Attention to behavioral and mental health

Supportive relationships

Validation of existing **strengths and protective factors**

https://drkathleenyoung.wordpress.com/2010/11/08/does-self-care-mean-others-dont/

RECOMMENDATIONS

Picture from Unsplash

- Trauma and TeamSTEPPS Training
  - *shared mental model and language that promotes safety*
- Health Services
  - *Universal Screening*

“One of the hardest, yet most important parts of this work, is taking time to attend to for self-care.

It is self-care that restores energy and builds that capacity to give care, yet it is often neglected.”

Madril, E.; Moncada, S. (2017)Douglas, K. The Dance of Caring: A Caregiver's Guide to Harmony

BURNOUT DEFINED

A process that includes:

- *gradual exposure to job strain*
- *erosion of idealism*
- *a void of achievement*
- *an accumulation of intensive contact with difficult situations*

Symptoms

Physical (fatigue, depletion, sleep difficulty, somatic problems)

Emotional (irritability, anxiety, depression, guilt, sense of helplessness)

Behavioral (aggression, callousness, pessimism, defensiveness, cynicism, substance abuse)

Interpersonal symptoms (perfunctory communication, inability to concentrate or focus, withdrawal from colleagues/students/clients, dehumanizing students/clients

Work-related symptoms (quitting the job, poor work performance, absenteeism, presenteeism, tardiness, misuse of work breaks, thefts)

In Summary

- Leadership buy-in is essential
- Trauma disrupts the normal neurobiology
- Lack development of receptors for “feel good” chemicals in the brain, such as dopamine and natural opioids.
- Addiction is a disease
- There are gender differences in trauma responses
- Supportive relationship matters
- Training is essential
- Self care matters

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