

**Safe Recovery:**  
Understanding Substance Use Disorders  
from a Trauma Informed Lens

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**COASTAL OREGON**  
**FALL 2018**

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**Who am I?**

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- DNP, PMHNP, CARN-AP
- Medical Director of Outpatient Substance Use Disorder Services @ Central City Concern
- Nurse first!
- Person in long term recovery
- Person with a history of trauma

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**Why this talk?**

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- Children who experience trauma are **46%** times more likely to develop a IV substance use disorder (SUD) as an adult.
- Our understanding of addiction, and subsequently our treatment of SUDS, must reflect this knowledge.

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### Agenda

- Understanding the epidemiology
  - ACES
  - Prevalence
- Neurobiology of Trauma and Addiction
- New conceptualizations of SUDS
  - Neuroscience
- Trauma Informed Care
  - Clarifying Trauma Informed vs Trauma Specific
- Workshopping: how to build trauma informed services

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### Understanding the Epidemiology

- Bulk of the evidence comes from the ACES study
  - "The Origins of Addiction" (Not a disease)
- Felitti, Late 1990s
- Kaiser population
  
- 9 questions:
  - IPV
  - Material needs not met
  - Neglect
  - Physical Abuse
  - Verbal Abuse
  - Sexual abuse
  - Loss of family member to criminal justice system
  - Mental health or SUDs in the home
  - Loss of parent to divorce or death

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### Alcoholism and ACES

#### Childhood Experiences vs. Adult Alcoholism

ACE Score	% Alcoholic
0	2
1	5
2	10
3	12
4+	16

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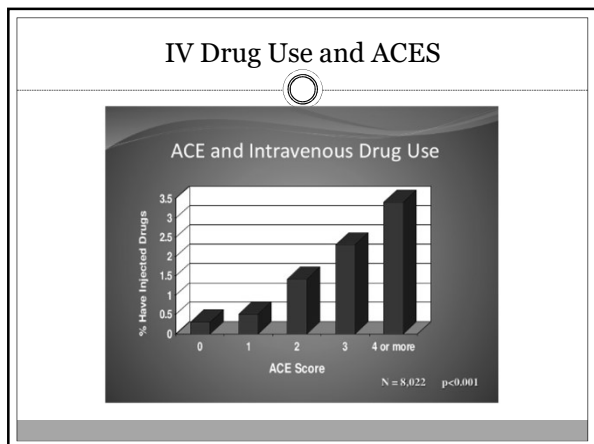
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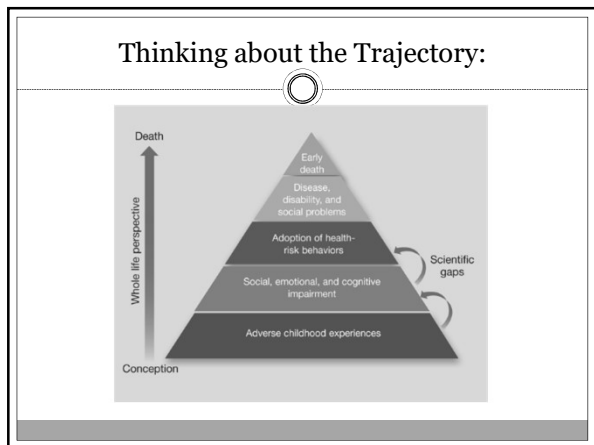
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### Overall ACES

- Remember the population sampled?

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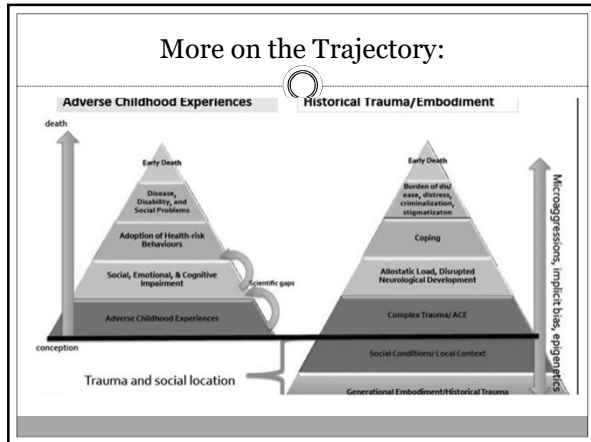
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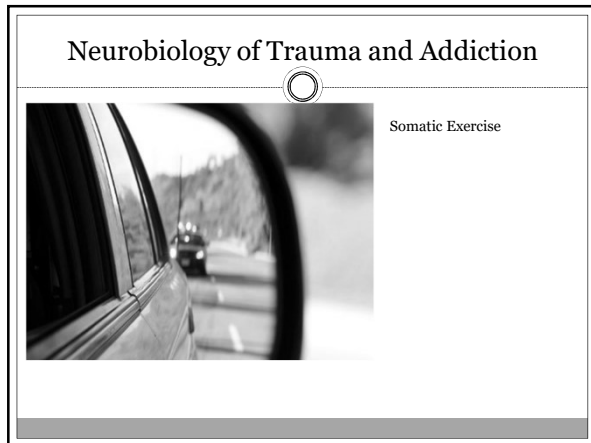
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- ### Understanding Executive Function
- Executive Functioning Is Responsible for:
    - *Emotion Regulation*
    - *Inhibitory Control*
    - *Self-monitoring*
    - *Paying Attention*
    - *Planning and organizing*

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### Trauma-OUD Overlay

- **Two major areas wherein trauma and SUD overlap and entangle:**
  - 1. Decreased cortical control/Executive function impairment
  - 2. Similar neuro-hormal landscape (esp in withdrawal):
    - excessive CRF, NE, Impaired DA and 5HT.
- [Koob, 2017 | van der Kolk, 2015]

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### Trauma-SUD Connection

- Transform our understanding of dopamine in this disease:
  - Persistent hyperarousal (and subsequent hypoarousal)
  - High ACES scores = people come into adulthood with a deficit in dopamine [van der Kolk, 2015]
- Amygdala has exceptionally high concentration of opioid receptors [Zubieta, 2001]

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### Saliency

The figure is a scatter plot with a downward-sloping trend. The vertical axis is labeled "Normal" and the horizontal axis is labeled "First Use". A horizontal dashed line is drawn across the plot. A circle highlights the point where the data crosses this line. There are approximately 12 data points in total, showing a clear decrease in value as "First Use" increases.

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**Trauma-SUD Connection**

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- “Ritualized compulsive comfort seeking”
  - – Dr. Daniel Sumrok, MD

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**Choice**

A NEW PARADIGM FOR UNDERSTANDING SUD

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**Choice      Disease**

A NEW PARADIGM FOR UNDERSTANDING SUD

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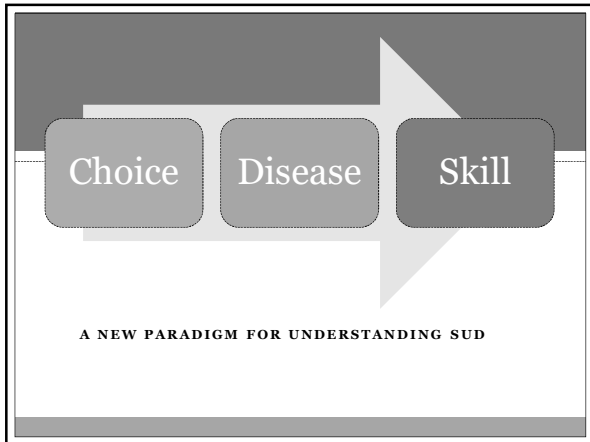
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**Neuroscience**

"Salience"	"Dark Side"
Mood becomes more manageable	Mood becomes dysregulated
Increase in euphoria via various brain communicators	Dysphoria and disease via various brain communicators
Increase in Opiate Peptides, Dopamine and GABA	Decrease in Opiate peptides, dopamine receptors, and GABA activity

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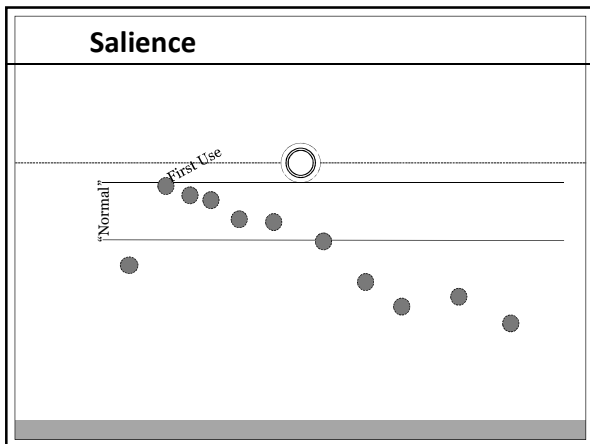
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### Trauma Informed Care



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### Trauma Informed Tenets and Values

- Acknowledges the prevalence of trauma, and the subsequent changes to neurophysiology.
- Transparent
- Strengths Based and Rewarding
  - (love as contingency management)
- Predictable
- Collaborative
  - Shared Decision making
- Actively resists re-traumatization
- Emphasizes Just Culture
- Highlights Peer Inclusion
- Addresses equity
- Attentive to staff trauma burden

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### Trauma Informed VS Trauma Specific?

Informed	Specific
Universal precautions	Treats disorder in an individual
Builds attentive systems for cts and staff	Target specific symptoms of trauma (e.g. prazosin for nightmares)
Changes how we think about the pathology	Utilizes modalities such as EMDR, SE, etc
Doesn't necessarily screen for Trauma	Screens and offers intervention for PTSD

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