# Integrating Mindfulness to Overcome Trauma and Addiction

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## This presentation is experiential....

- Experiential learning
- Practicing mindfulness in this presentation
- You are welcome to participate or not
- Invite you to attend to your own inner experiences throughout this presentation and notice what comes up.
  - What you feel physically and emotionally?
  - Where you feel it in your body?

### Prevalence of Trauma

- According to the National Center for PTSD:
- 61% of men and 51% of women report having experienced at least one traumatic event (lifetime)
- 10% of men and 6% of women report having experienced four or more traumatic events (lifetime)
- Worldwide, it is estimated that two-thirds of the population is exposed to a traumatic events that meet the DSM criteria A for PTSD.
- Of these trauma victims, 8% receive diagnosis of PTSD
- 1% of American population (New England Journal of Med)
- ▶ Women are diagnosed with PTSD twice as often as men.

## Trauma and Addiction

- Individuals with PTSD are 3 to 4 times more likely to develop SUD's than individuals without PTSD have earlier histories with A & D, more severe use, and poor treatment adherence. (Khantzian & Albanese, 2008)
- ▶ Among persons who develop PTSD, 52% of men and 28% of women are estimated to develop an alcohol use disorder.
- ▶ 35% of men and 27% of women develop a drug use disorder.
- (Najavits, 2007)
- ► The numbers are even higher for veterans, prisoners, and first responders, etc.
- Najavits, 2004a, 2004b, 2007)

## What is addiction anyway?

- ▶Short Definition of Addiction: (American Society of Addiction Medicine, 2011)
- ▶ Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.
- Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response.
- Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

## Define Trauma

Trauma changes everything. It messes with every aspect of my thought process and functioning. I can be triggered into absolute devestation from a word, a pattern, a day of the year, a smell. Sometimes it's like I'm in a time machine desperately searching for a way to move forward rather than flashback. PTSD BREAK THE SILENCE

## Defining Mindfulness

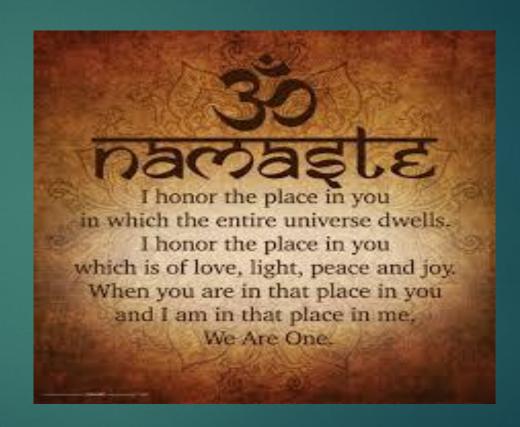
- ► Four Main Components
  - ▶ Focused attention
  - Purposefully
  - ▶ To the present moment
  - Without judgmentally



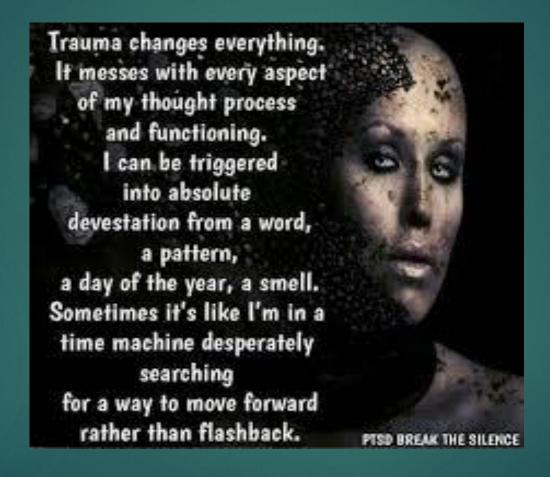
(Baer, 2009)

## 4 Noble Truths

- ► There is suffering
- There is a course of action that generates suffering
- Suffering will cease
- There is a course of action that leads to the cessation of suffering



## Define Trauma



## Neurobiology of Trauma

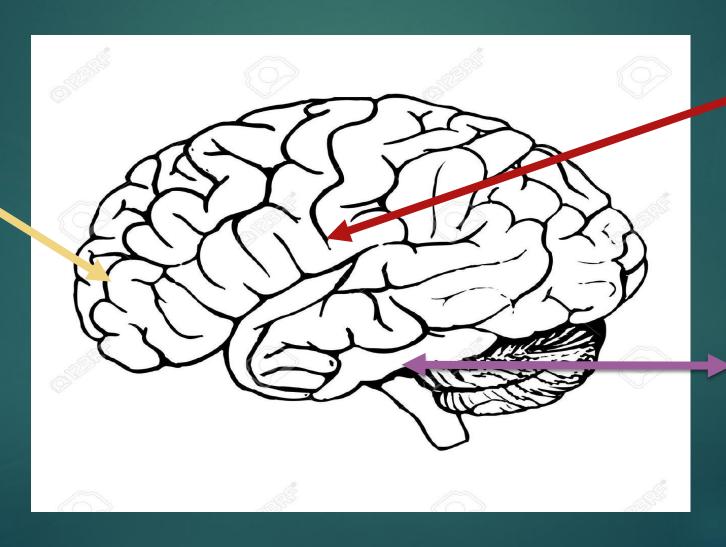
- ▶ Research into the neurobiological aspects of trauma has found that trauma disrupts neural networks inhibiting traumatic experiences from being processed into a way that can be understood consciously (Lee, Zaharlick Akers, 2009).
- As a result these traumatic memories stay in lower regions of the brain inaccessible to the frontal lobe. (van der Kolk, 1994).
  - Frontal Lobe (neocortex) = The rational, understanding, and thinking part of the brain that is utilized by CBT, Relapse Prevention and 12 step Facilitation

## Triune Brain (MacLean, 1990)

Neocortex:
Executive
functioning
(thinking, reason,
speech, insight,
interoceptiveawareness, &
meaning)

#### **Structures:**

- Medial PFC
- Dorsal PFC
- Ventro Medial PFC
- Anterior
   Cingulate Cortex
- Posterior cingulate cortex
- Temporo-parietal junction
- Insula



Limbic System: (5 F's) Fight, Flight Freeze Feed, & Formicate

#### Structures: 9

- Amygdala-smoke detector
- Thalamus- sensory input
- Hippocampusmemory formation; sort to long term

R Complex Brain (Reptile Brain): Instinctual survival behaviors

#### Structures:

- Brain Stem
- Cerebellum

## Structural functions of the brain:

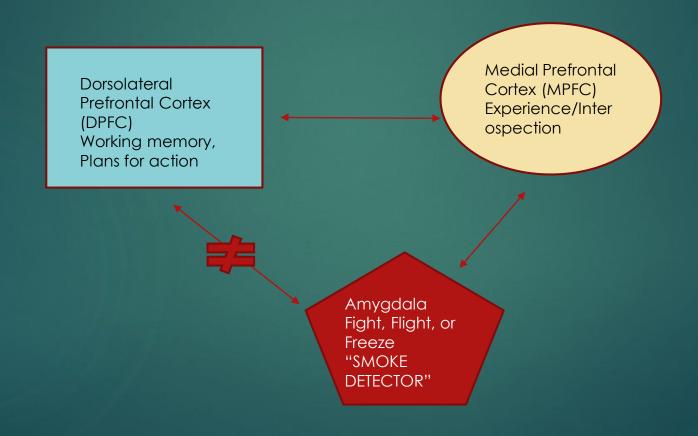
- Medial PFC- sense of self awareness, Experience/Interospection
- Dorsal PFC-Working memory, Plans for action
- Ventro Medial PFC- processing of risk and fear. Plays a role in the inhibition of emotional responses, and in the process of decision making.
- Temporo-parietal junction-incorporates information from the thalamus and the limbic system, as well as from the visual, auditory, and somatosensory systems.
- Insula- perception, motor control, selfawareness, cognitive functioning, and interpersonal experience.

- Posterior cingulate cortex-communicate with various brain networks simultaneously. implicated as a neural substrate for human awareness plays a prominent in pain and episodic memory retrieval
- Anterior Cingulate Cortex-wide variety of autonomic functions, such as regulating blood pressure and heart rate. It is also involved in rational cognitive functions, such as reward anticipation, decisionmaking, empathy, impulse control, and emotion.
- Amygdala- identify threat or fear. "Smoke Detector"
- Hippocampus-memory formation; short to long term

## Neurobiology of Mindfulness (Hozel et al. 2011)

Mechanism	Exemplary instructions	Self reported snd experimental behavioral findings	Associated brain areas	Mindfulness practice
Attention regulation	Sustaining attention to chosen object; when distracted returning attention to the object	Enhanced performance: executive attention	Anterior cingulate cortex	Focused breathing; body scan
Body Awareness	Focus is usually on an object of internal experience: sensory experiences of breathing emotions or body sensations	Increased scores on 5 facted mindfulness questionnaire. Narrative self reports of enhanced body awareness	Insula, Temporo- parietal junction	Focused breathing; body scan
Emotional Regulation: reappraisal	Approaching ongoing emotional reactions in a different way	Increased positive reappraisal	Dorsal Prefrontal Cortex (PFC)	Nonjudgment and acceptance
Emotional Regulation: exposure extinction, and reconsolidation	Exposing oneself to whatever is present in the field of awareness; letting oneself be affected by it; refraining from internal reactivity	Increased non- reactivity to inner experiences	Ventro-medial PFC, Hippocampus, Amygdala	Awareness of emotions of emotions
Change in perspective of the self	Detachment from identification with a static sense of self	Self reported changes in self- concept	Medial Prefrontal Cortex, posterior cingulate cortex, Insula, Temporo- parietal junction	Metta Bhavana; Tonglen

## Neurobiology of Trauma and Mindfulness



## Mindfulness In Therapy

- Check in with the men's inner experiences during group or individual sessions
  - What do you feel/notice right now?
  - ▶ Notice that.
  - Where in your body are you feeling that?
  - ▶ Where do you notice it?
  - ▶ Can you lean into it?

## Methods for integrating mindfulness into current model

- Begin or end sessions with mindfulness techniques.
- Practice in session.
- Process the practice.
- Provide feedback.
- Normalize the experience.
- Practice Logs
  - Focused breathing
  - Vipassana
  - Body scan
  - Metta Bhavana
  - ▶ Tonglen

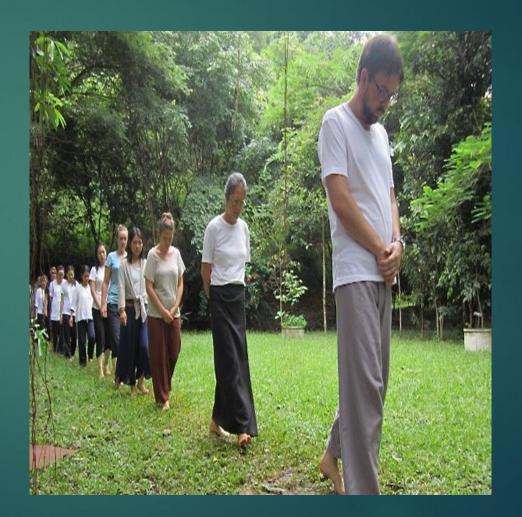
## Continued...

- Use technology: smartphone apps!!
- Check in with the person's inner experiences during group or individual sessions
  - What do you feel right now?
  - ▶ Where do you notice it?
  - ▶ Can you lean into it?

## Moving Mindfulness

#### Moving Mindfulness

- Walking Meditation
- Standing Yoga
- Mindful Ball Toss



## Meditation Log

Date of practice:	Time of day practiced:	Meditation Practices:	Daily Comments:	Emotions present in practice:

Keep it simple!

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