



Northwest (HHS Region 10)

**ATTC**

Addiction Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration



Northwest ATTC presents:

# Reducing Relapse Risk by Increasing Body Awareness Skills

## **Cynthia Price, PhD**

Research Professor at UW School of Nursing, Research Associate Director of UW Osher Center for Integrative Medicine, Director of nonprofit Center for Mindful Body Awareness.



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# Today's Presenter

## Cynthia Price, PhD

- Research Professor at UW School of Nursing, Research Associate Director of UW Osher Center for Integrative Medicine, Director of nonprofit Center for Mindful Body Awareness.
- Teaches and researches Mindful Awareness in Body-oriented Therapy (MABT)
- Funding from NIDA and National Center for Complementary and Integrative Health
- Presenting on use of MABT as adjunctive treatment to reduce risk of relapse



# **Reducing Relapse Risk by Increasing Body Awareness Skills: Practical Tips and Research Findings for Clinicians Who Work in Substance Use Disorder Treatment**

Cynthia Price, PhD, MA, LMT

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# Today's Presentation

- Body/Interoceptive Awareness and Mindfulness
  - Definitions and Overlapping Constructs
- Interoception, Substance Use Disorder, and Regulation
- Mindful Awareness in Body-oriented Therapy (MABT)
- Experiential
- Research Findings
- Integration into Practice
- Q & A

# Body Awareness and Interoception

## Body Awareness

- Umbrella term for any kind of awareness of the body

## Interoception\*

- Processing of sensory input
- Homeostatic function, mostly unconscious

\*Craig, A. (Bud). Interoception: the sense of the physiological condition of the body. *Current opinion in neurobiology*. 2003;13(4):500-505.

# Interoceptive Awareness

## Awareness of inner body sensations\*

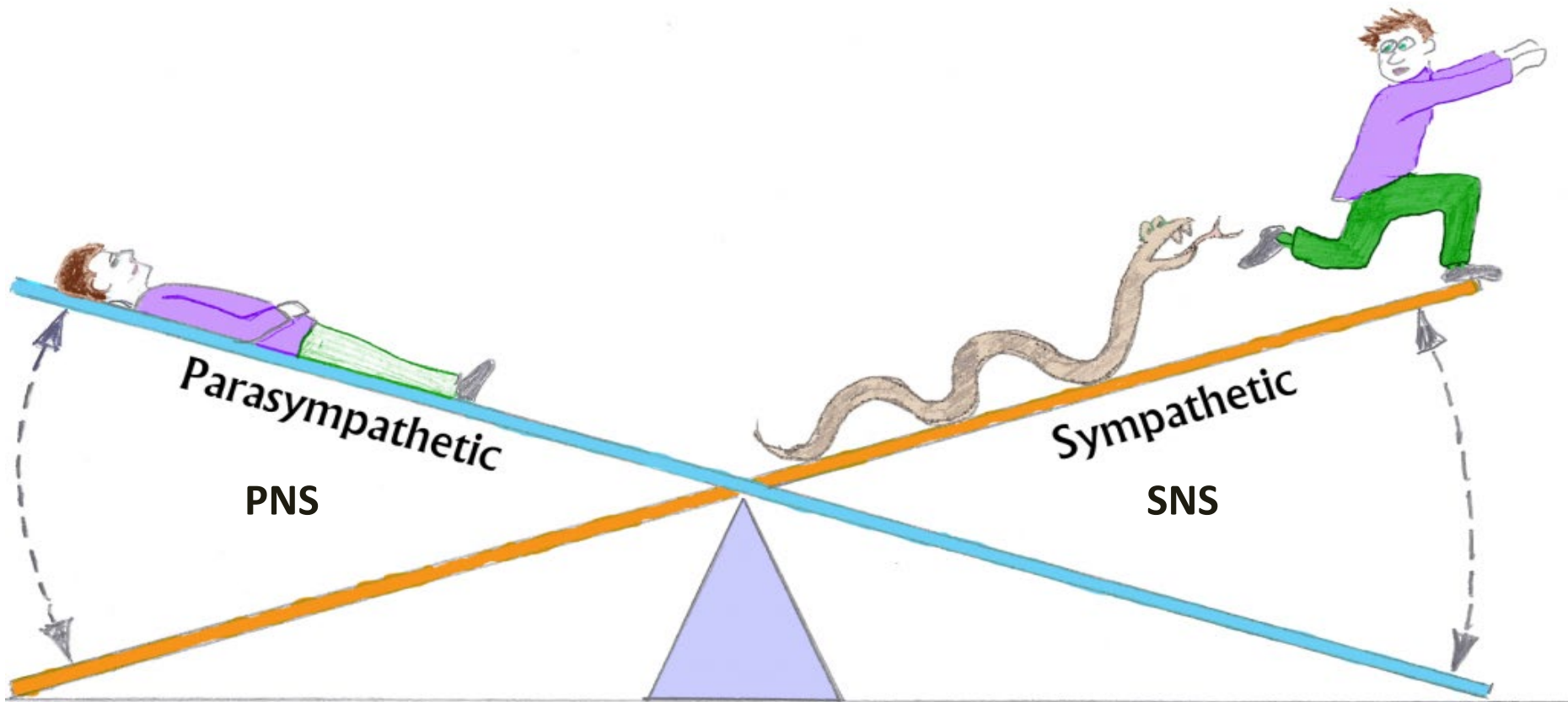
### Aspects

- ❖ Identify
- ❖ Access
- ❖ Evaluation (Somatic Re-appraisal)

\*Farb, N., Daubenmier, J., Price, C., Gard, T., Kerr, C., Dunn, B., Klein, A., Paulus, M., Mehling, W. (2015). Interoception, Contemplation, and Health. *Frontiers in Psychology*, 6:763.



# Homeostasis is a dynamic balance between the autonomic branches.



**Rest and digest:**  
Parasympathetic  
activity dominates

(Vital Force Technology Energy Tools International LLC)

**Fight or flight:**  
Sympathetic activity  
dominates



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# Neurocognitive Interoception Models and Research in Substance Use Disorder (SUD)

- People with SUD have more interoceptive dysfunction compared to healthy controls.

-Paulus & Stewart, 2014

- Emotion dysregulation is relevant to SUD treatment due to increased risk of relapse from stress & negative affect.

-Sinha & Li, 2007; Sinha et al., 2009

- Models suggest the importance of interoception to improve affective behavior and relapse prevention among those in SUD treatment.

- Gary & Critchley, 2007
- Naqvi & Bechara, 2010
- Noel, Brevers & Bechara, 2013
- Paulus, Stewart & Haase, 2013



# Teaching/Learning Interoceptive Awareness

Fundamental to mindfulness approaches

Not often explicitly taught in mindfulness–based programs

Individualized support often needed to develop interoceptive awareness skills

Bodily disconnection:

- lack of physical awareness (tension/pain/stress)
- lack of emotional awareness
- lack of awareness of link between physical sensations and emotional sensations

# Mindful Awareness in Body-oriented Therapy (MABT)

- Teaches Interoceptive Awareness Skills

MABT → Interoceptive Skills → Emotion Regulation → Improved Health



# Interoceptive Awareness Training in MABT\*

## Three Stages

Stage 1: Body Literacy → Identification/Awareness

Stage 2: Interoceptive Awareness Exercises → Access

Stage 3: Mindful Body Awareness Practice → Develop  
Sustained Attention and Somatic Reappraisal

\*Price & Hooven, 2018 *Frontiers in Psychology*



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Experiential



# MABT Training Processes

Stage 1. Sessions 1- 2	Stage 2. Sessions 3-4	Stage 3. Sessions 5-8
Check-in (30)	Check-in (30)	Check-in (30)
Body Literacy Training (45)	Body Literacy Review (15)	Body Literacy Review (15)
	Interoceptive Access Training (30)	Mindful Body Awareness Practice (30)
Session Review (15)	Session Review (15)	Session Review (15)
Home Practice	Home Practice	Home Practice

# Why Study MABT in Substance Use Disorder Treatment ?

Negative affect and stress are identified primary risks of relapse post-treatment (McCabe et al., 2016; Sinha, 2007)

Dysregulated emotion is linked to interoceptive dysfunction in SUD and thought to influence negative SUD treatment outcomes (Paulus & Stewart, 2014; Sinha & Li, 2007)

There are high levels of interpersonal trauma (physical/sexual abuse and neglect as children and exposure to violence as adults) among this population. Extensive trauma is often accompanied by disconnection from the body as a way to cope with emotional and physical pain.



# Interpersonal Trauma History in MABT Study

187 women in outpatient community treatment

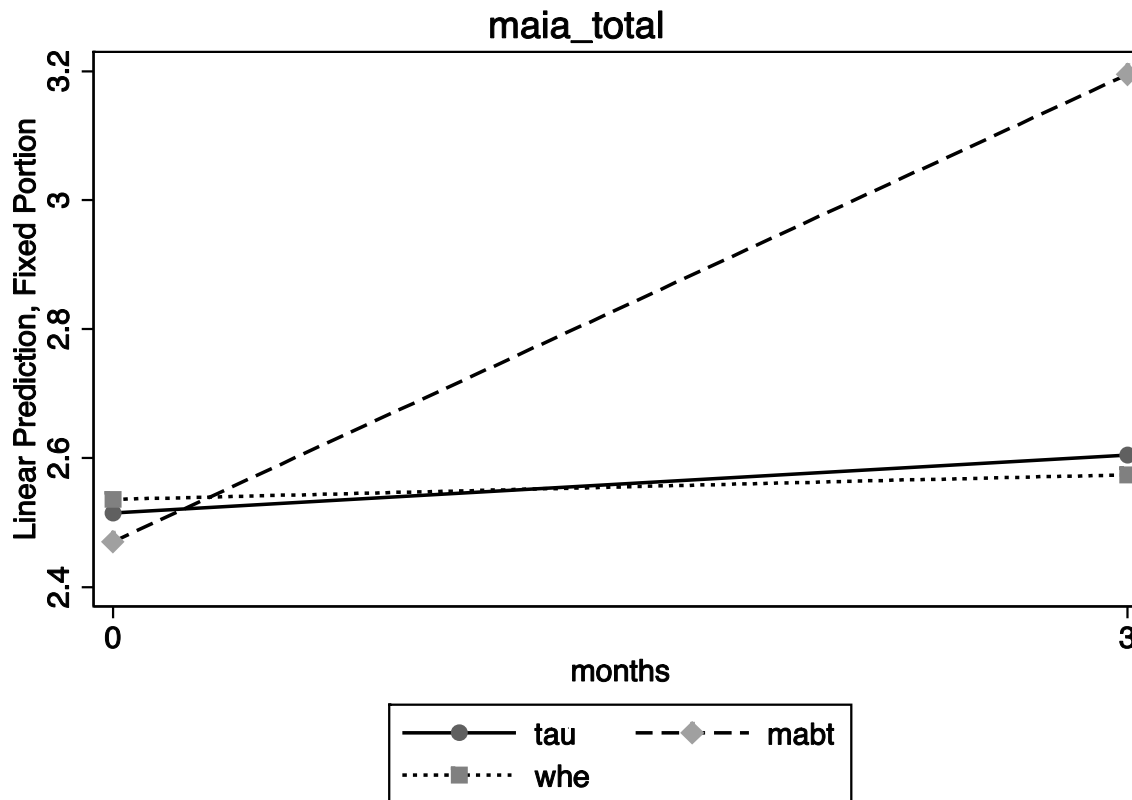
- 100% reported history of interpersonal trauma
  - 82% adult intimate partner violence
  - 39% adult assault by stranger
  - 48% child sexual abuse
  - 37% child physical abuse

68% screened positive for PTSD

50% no prior mental health services

Price et al, 2018 *Substance Abuse*

# Multidimensional Assessment of Interoceptive Awareness (MAIA) : Group x Time Interaction

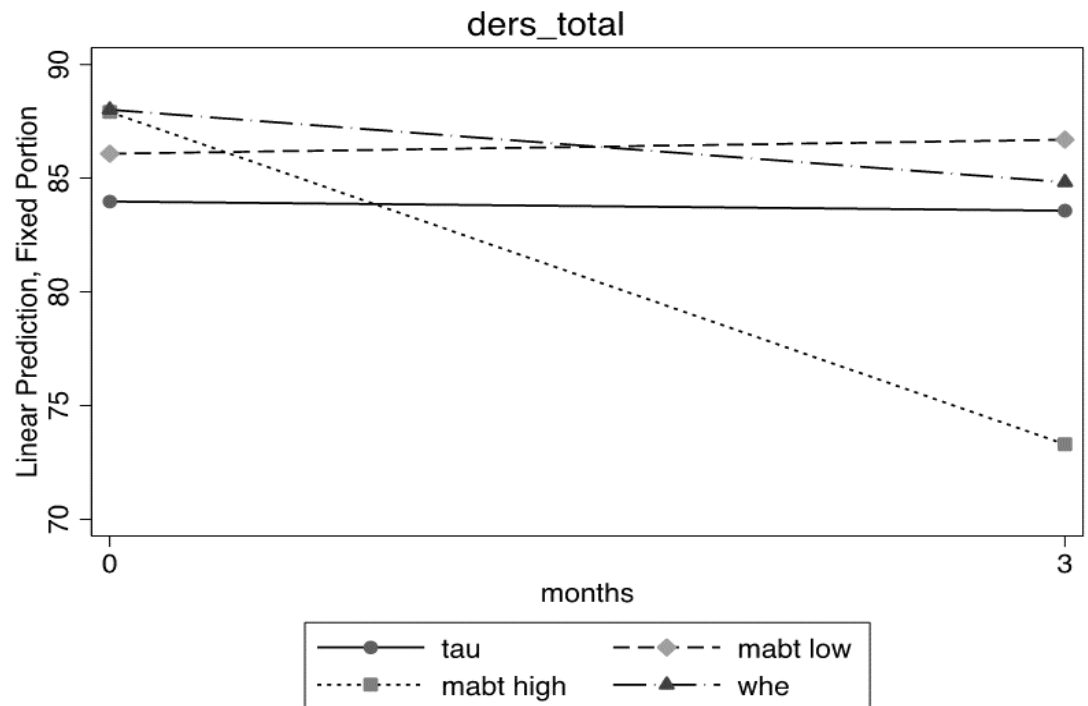
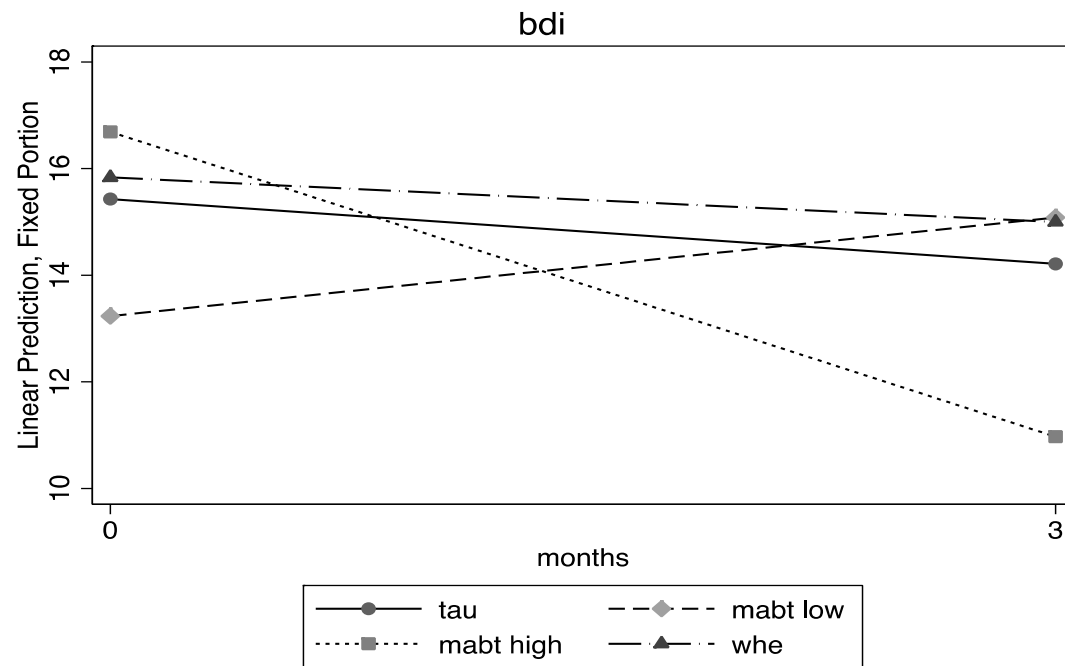


- When I bring awareness to my body I feel a sense of calm
- I can use my breath to reduce tension
- When I am caught up in thoughts, I can calm my mind by focusing on my body
- When I feel overwhelmed I can find a calm place inside

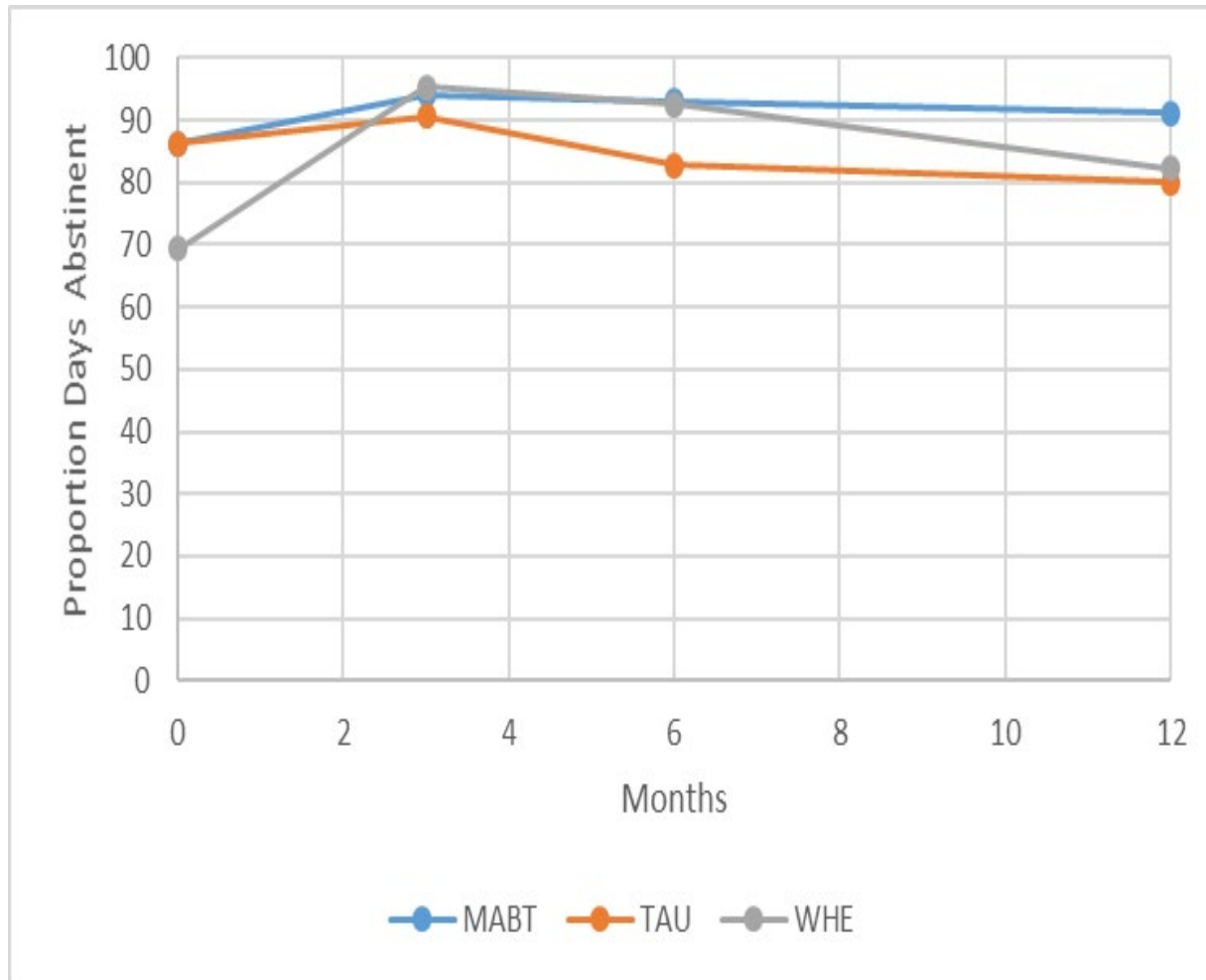
**Pre - Post  $p = .002$** ; Price et al, 2018 *Substance Abuse*

**Group x Time 0 -12 Months  $p < .001$** ; Price et al., 2019 *Drug and Alcohol Dependence*

# Depression (BDI) and Difficulty in Emotion Regulation (DERS): Pre to Post Intervention



# Days Abstinent from Substance Use 0 to 12 Months



Group x Time  $p = .03$

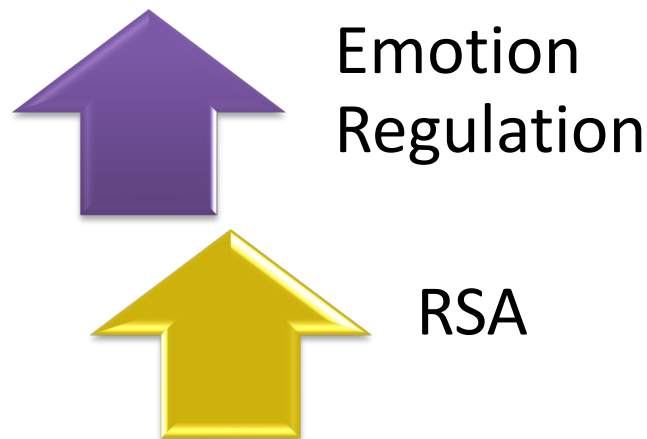
MABT vs. TAU  $p = .02$

Price, Thompson, Crowell,  
et al., 2019 *Drug and  
Alcohol Dependence*

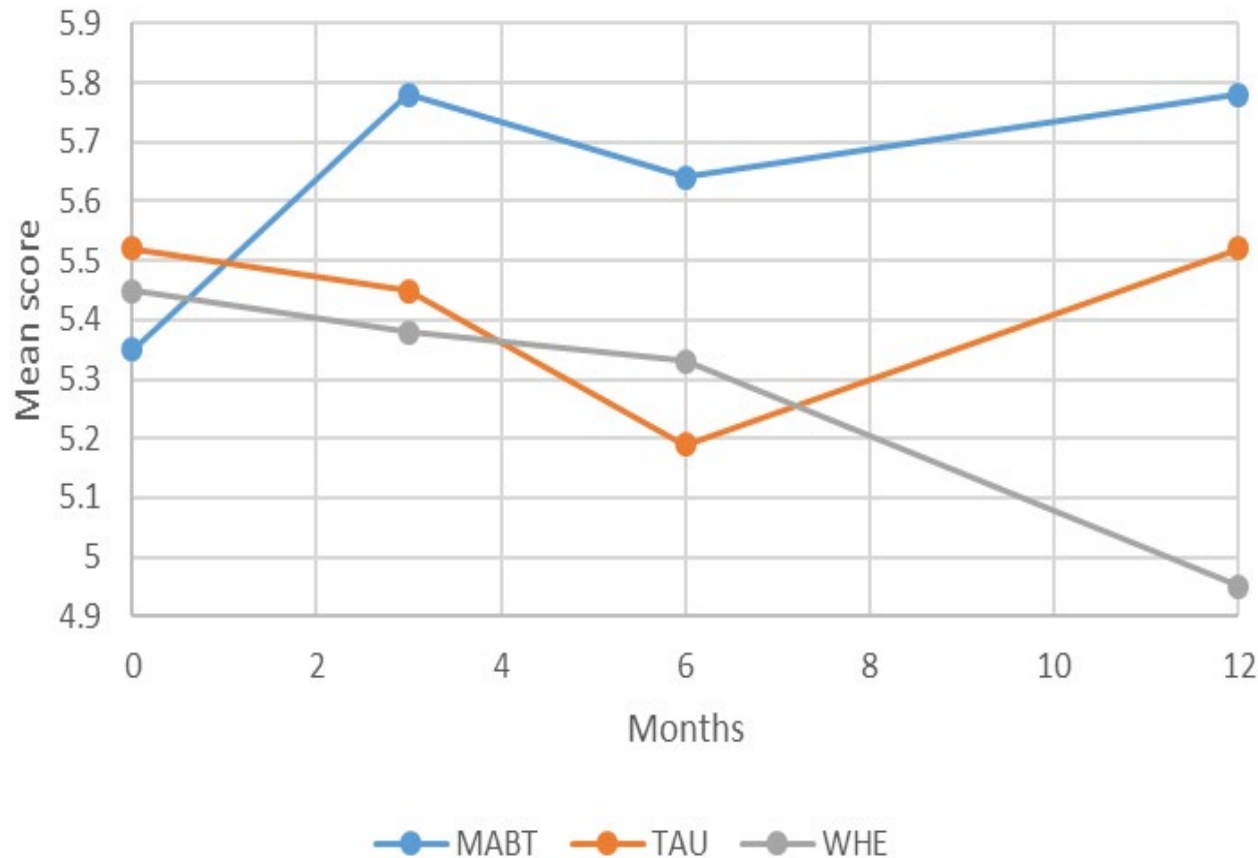
# Respiratory Sinus Arrhythmia (RSA)

## Biomarker of Psychophysiological Regulation

- Measures parasympathetic (regulatory) influences on heart rate
- Higher baseline RSA and RSA increases to stressors are associated with better physiological and emotional regulation



# Resting RSA : 0 -12 Months



Group x Time  $p = .03$

MABT vs. TAU  $p < .001$

Price, Thompson, Crowell,  
et al., 2019

*Drug and Alcohol  
Dependence*

# Qualitative Results: What Learned?

## Primary Themes

- Increased Awareness of Bodily Self
  - *Had tuned-out rest of my body; now I check in with whole body*
  - *More in tune with different parts of my body, can tell where I experience sensations*
- Link Emotions and Sensations
  - *Connections between cravings and where they exist in the body*
  - *Learning to connect mind, body, spirit – this is the turning point to freedom*
- Regulatory Skills
  - *Learned how to relax and calm myself*
  - *I can put myself in a place that's peaceful (it's helpful & relieves tension)*
  - *I can use emotions vs. have them use me*
  - *Gave me coping skills when I'm in a stressful situation*
- Acceptance
  - *Learned to listen to my body, not fix it*
  - *Learned to just let them be (my feelings)*
  - *Honor emotions even if they are negative*



# Integration of MABT Skills in Daily Life

At 6-month follow-up, 75% reported use of MABT skills in the past 3 months.

66% reported weekly use of MABT skills in this time period:

- once/week for 15%
- several/week 32%
- daily 19%

At 12-month follow-up, 78.4% reported use of MABT skills in the past 3 months.

69% reported weekly use in this time period:

- once/week 33%
- Several/week 14%
- daily 21.6%





# What motivates continued practice?

- Theme: Emotional Awareness and Regulation
- Example: *“You’re not hiding from things inside you anymore... I think that had pretty much a lot to do with my use. I was trying to cover up feelings, trying to cover up emotions – it was how I coped with life. It {MABT} gives me the ability focus on things in a different way, you know? It’s a very unique way to think about things that are within me and connect my body to my mind and my spiritual duality and being {able} to connect everything inside.”*

Price & Smith-DiJulio, 2016 *J. of Addictions Nursing*



# Research Highlights

- A very distressed sample could learn interoceptive awareness skills in short time and these were maintained at 12 months.
- MABT reduces substance use and craving compared to TAU.
- MABT increases capacity for emotion regulation (RSA), supporting cognitive neuroscience models and research linking ER to improved health in SUD.

# Implementing MABT in Community Treatment

- It is feasible to recruit and retain women to MABT as an adjunct to addiction treatment.
- MABT acceptability is high.
- MABT therapists from outside clinic is feasible; having connection with staff and being “known” is critical for referrals.
- MABT therapists as employees is ideal for interface with SUD treatment staff and access to client treatment info (EHR).

Price, Wells, Donovan, Brooks, 2012 *Journal of Complementary and Alternative Medicine*

# Integrating Body Awareness Skills In Clinical Care: What can you do?

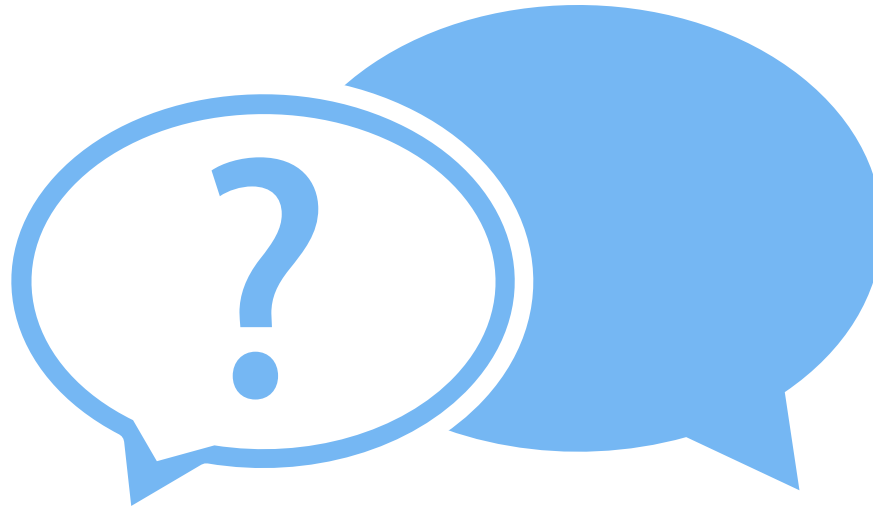
- Focus on present-moment experience (emotions, sensations, body awareness) in educational and psychotherapeutic interactions/material.
- Guide client in a body scan to promote awareness to internal experience.
- Ask client about how body feels when they express emotional distress (to promote linkages/integration).
- Ask client how they feel emotionally when they express physical distress (to promote linkages/integration).
- Focus on simple sensations in body for grounding/centering (e.g. feet on ground, butt on chair) to help someone calm when they are escalated.
- Suggest take home practices to promote body awareness.



# What Supports Client Learning

- Trust and Sense of Safety in the Therapeutic Relationship
- Therapist Self- Presence
- Therapist Familiarity Teaching and Assessing Client Mindfulness and Body Awareness Skills
- Individualization of Learning Strategies and Home Practice
  - Incremental Teaching Approach
  - Encouragement
  - Client as Guide/ Unfolding Process
- Client Integration of Skills in Daily Life

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# Upcoming Events

## Join us for our next webinar!

### Pain Self-Management for Opioid Use Disorder

Marian Wilson, PhD  
October 23, 2019, 12-1pm (PT)



gracias cảm ơn bạn ধন্যবাদ 고맙습니다  
شكرا جزيلًا salamat благодарю вас 谢谢  
Dziękuję Ci **Thank** ευχαριστώ  
quyana tack **you!** អរគុណ  
धन्यवाद danke asante grazie  
hík'wu? merci הודת obrigado ขอบคุณ  
ありがとうございました спацибі mahalo