

# **Mindfulness Meditation: A Treatment for Many Ills**

**Brian L. Meyer, Ph.D.**

**Psychology Program Manager**

**Community-Based Outpatient Clinics**

**Central Virginia VA Health Care System**

**Richmond, VA**

**December 14, 2021**





# Disclaimer

The views expressed in this presentation are solely those of the presenter and do not represent those of the Veterans Administration or the United States government.





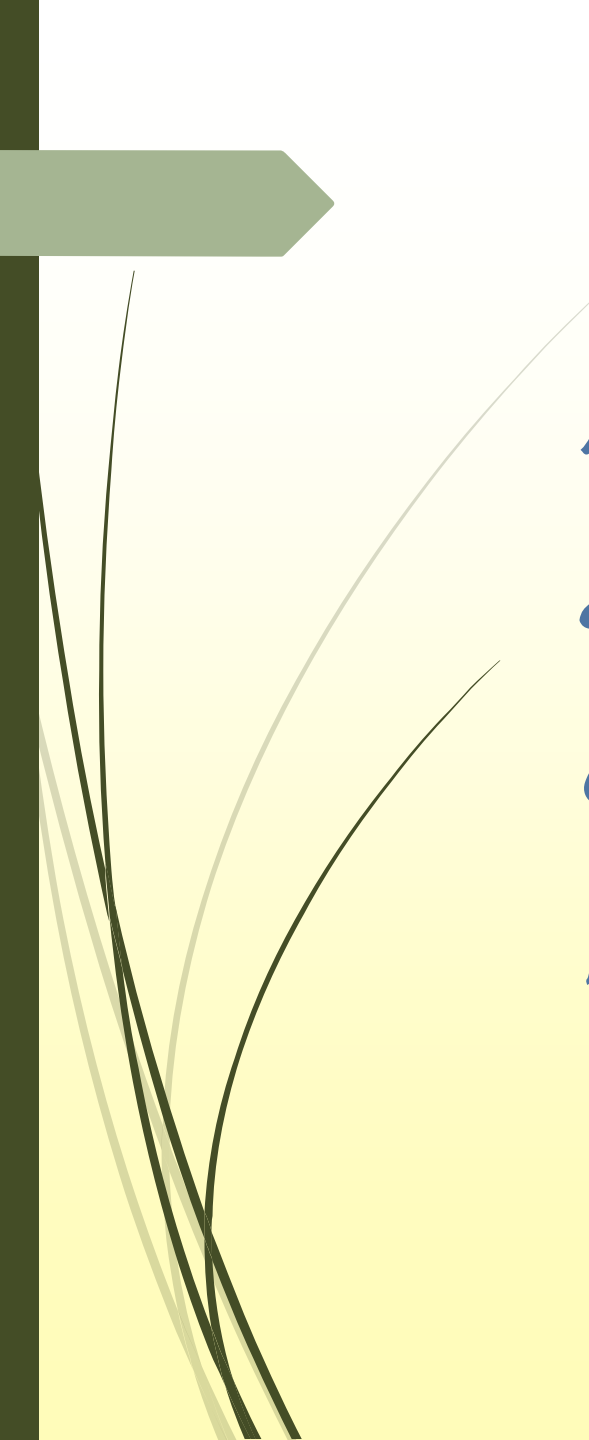
**The author has no conflicts of interest to disclose.**





# What Is Mindfulness?





*Mindfulness means paying  
attention in a particular way:  
on purpose, in the present  
moment, and nonjudgmentally.*

*- Jon Kabat-Zinn*



# Mindlessness

- Not paying attention
- Doing things in an automatic way, out of habit
- Letting your mind drift to the past or the future
- Partial attention
- Multitasking
- Resisting reality
- Impulsivity
- Resisting change
- Avoidance





# Central Concepts in Mindfulness



- Paying attention
- Present orientation
- Be non-judgmental
- Beginner's Mind: be curious and open to new experiences
- Acceptance of what is



# More Mindfulness Concepts



- Compassionate
- Willingness
- Non-striving
- Acting with thoughtful intention
- Letting go
- Interconnectedness



# Mindfulness Meditation

- Meditation is the formal practice of mindfulness





# Even Dogs Do It







# **Meditation Break: Mindfulness of the Breath**






# Why Mindfulness?







# THE BENEFITS OF MINDFULNESS


## Physical

 Boost energy levels

 Improves sleep

 Reduces chronic pain


 Improves heart function


 Helps with digestive problems


## Mental

 Relieves stress

 Reduces anxiety

 Improves mood and happiness

 Boosts concentration and focus

 Improves self-esteem



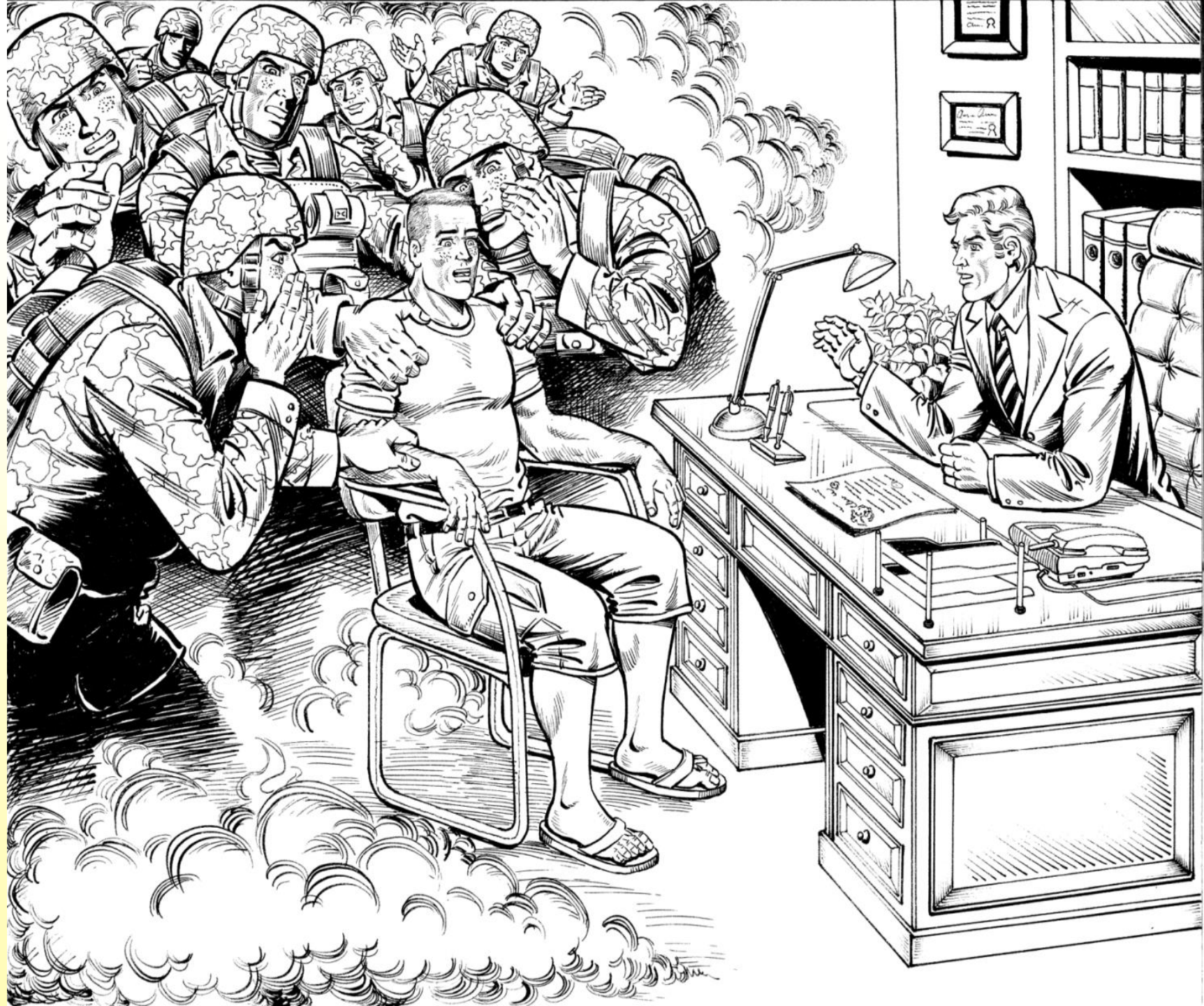


# Mindfulness Meditation Improves Cognition

- MM increases sustained, selective, and executive attention (Chiesa et al., 2011; Chambers et al., 2008; Lutz et al., 2008; Semple, 2010)
- MM improves working memory and memory specificity (Chiesa et al., 2011; Zeidan et al., 2010)



# The Mind of a Combat Veteran







Mind Full, or Mindful?



# Mindfulness Meditation Improves Cognition

- Meditation increases executive control (Jha et al., 2007; Teper & Inzlicht, 2013)
- Mindfulness Meditation increases cognitive flexibility (Moore and Malinowski, 2009)
- Mindfulness meditation decreases rumination and distractive thoughts (Jain et al., 2007)





# Mindfulness Meditation Changes the Brain


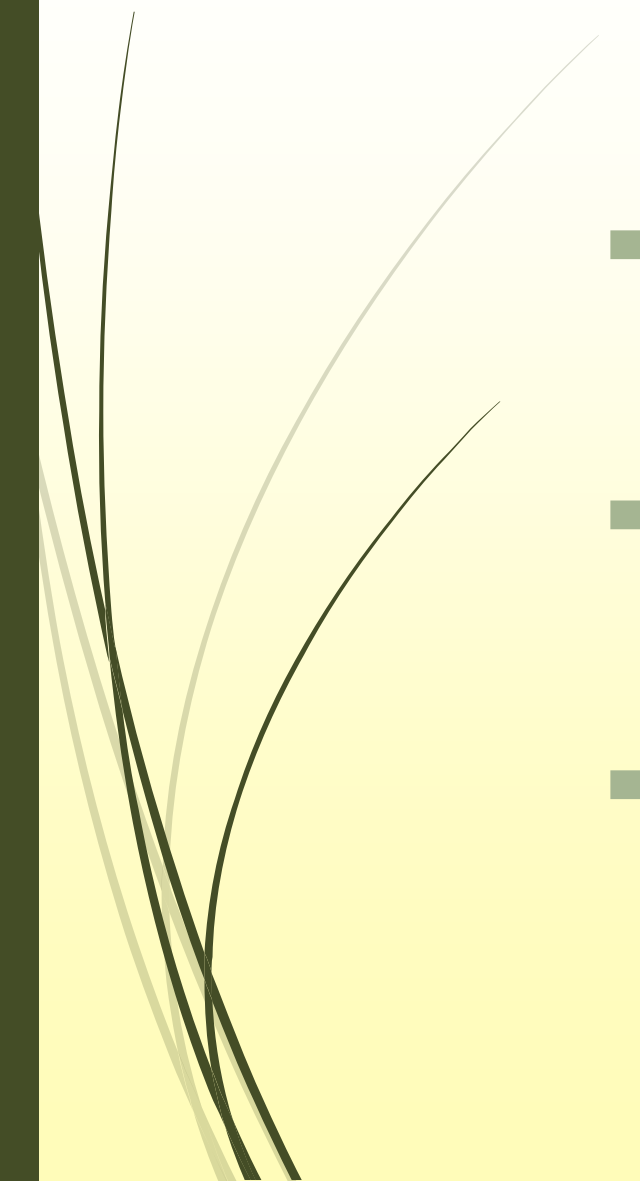


- Advanced meditators have greater cortical thickness (Lazar et al., 2005)
- MBSR results in increased gray matter density in the left hippocampus, posterior cingulate cortex, temporo-parietal junction, and the cerebellum (Holzel et al., 2011)





# Mindfulness Meditation Changes the Brain

- 
- 
- MBSR increases functional connectivity between different areas of the brain (Kilpatrick et al., 2011; King et al., 2016)
  - Mindfulness meditation decreases activation of the amygdala in beginning meditators (Taylor et al., 2011)
  - Zen meditators do not show expected age-related declines in gray matter and attentional performance (Pagnoni & Cekic, 2007)



THE KEY TO  
MEDITATION IS  
LEARNING TO STAY



Maria  
Scrivan





# **Meditation Break: Thought Defusion**





# **Mindfulness Meditation as a Treatment**



# Mindfulness Meditation as Prevention

- Applied to resilience and prevention of PTSD in the form of Mindfulness-based Mind Fitness Training, which reduces stress in Marines (MMFT, Stanley et al., 2011)
- These effects were generally moderate



MINDFULNESS-BASED  
**MMFT**  
MIND FITNESS TRAINING



# Mindfulness Meditation

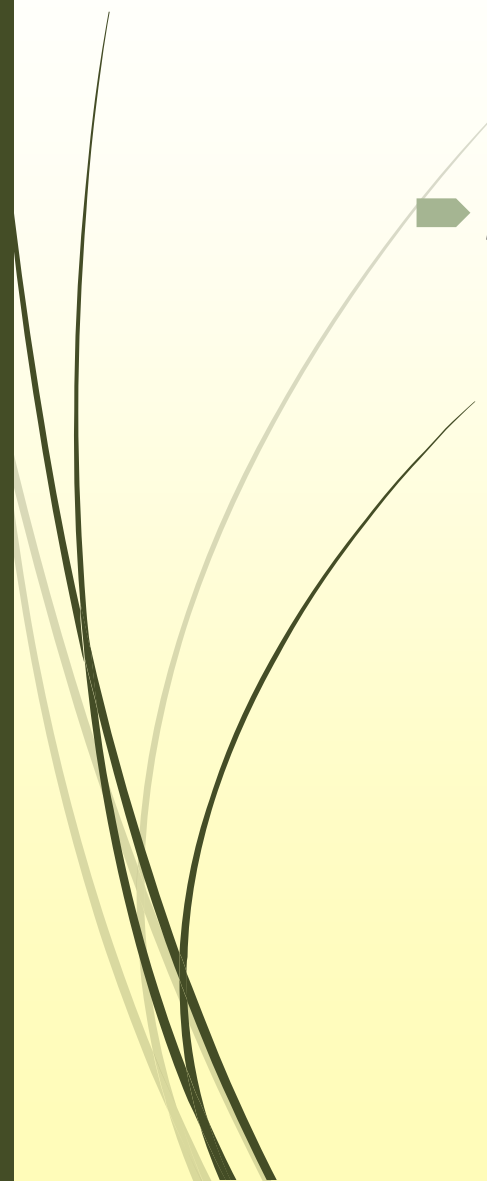
- Mindfulness shifts the brain into a state of calm
- Regular practice shifts the nervous system baseline







# Mindfulness Meditation is Central to Several EBTs

- Mindfulness is at the core of several evidence-based treatments:
    - Mindfulness-Based Stress Reduction (MBSR, Kabat Zinn, 1990)
    - Mindfulness-Based Cognitive Therapy for Depression (MBCT, Segal et al., 2001)
    - Dialectical Behavior Therapy (DBT, Linehan, 1993)
    - Acceptance and Commitment Therapy (ACT, Hayes et al., 1999)
- 



# Mindfulness Meditation for PTSD



- Mindfulness meditation decreases PTSD symptoms (Colgan et al., 2016; Follette et al., 2006; Gordon et al., 2008; Kimbrough et al., 2010; Lang et al., 2012; Stephenson et al., 2016; Stratton et al., 2015)
- Mindfulness operates on a different brain pathway than conventional PTSD treatments (King et al., 2016)



# Mindfulness Meditation for PTSD

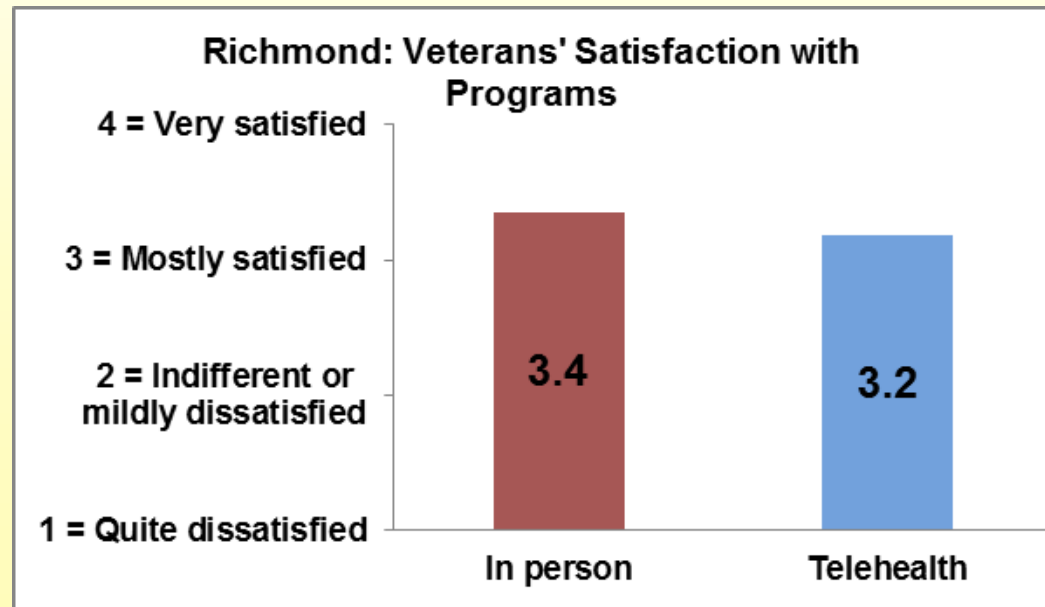
- 12 session evidence-informed 90 minute group treatment developed by the presenter

<u>Week</u>	<u>Topic</u>	<u>Meditation Exercise</u>
1	Introduction to Mindfulness	Mindfulness of the Breath
2	Learning to Observe	Thought Defusion
3	Learning to Describe	Mindful Awareness of Emotions
4	Becoming Non-Judgmental	Mindful Awareness of Judgments
5	Participating Fully	Eating Meditation
6	Focusing One-Mindfully	Walking Meditation
7	Mindfulness of the Body	Body Scan Meditation
8	Acceptance	Mindful Acceptance of Experience
9	Willingness	Mindful Acceptance of Difficult Experience
10	Compassion	Meditation on Compassion
11	Wise Mind	Wise Mind Meditation
12	Mindfulness Practice and Hindrances	Connection to the Universe Meditation



# Mindfulness Meditation for PTSD

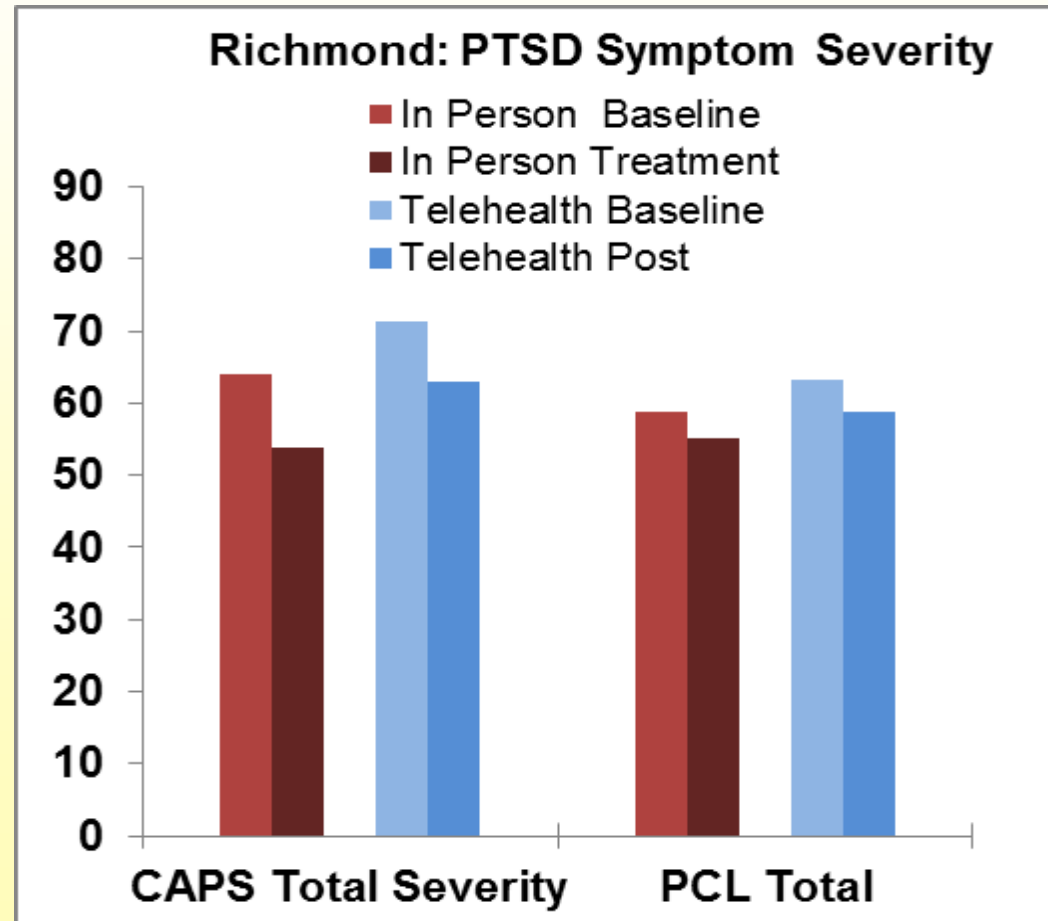
- 35 Veterans received treatment in person and 33 received it via telehealth
- 79% completed the program



Meyer et al., 2015;  
Stratton et al., 2015



# Mindfulness Meditation for PTSD



Meyer et al., 2015;  
Stratton et al., 2015



# Mindfulness Meditation for PTSD

**Table R1. Pre- and Post-Intervention PTSD Severity by Program: Richmond**

Variable	Pre-Test		Post-Test		Effect size within group <sup>a</sup>	Effect size between groups		Test of Group Differences in Change Across Time <sup>d</sup>
	Mean	(SD)	Mean	(SD)		Pre <sup>b</sup>	Post <sup>c</sup>	
PTSD severity: CAPS								
<i>In person</i>	64.1	(18.6)	53.8	(19.3)	-0.49	-.42	-.07	Group: F(1,38) = 3.18; p =.08 <b>Time:</b> F(1,38) = 11.9; p =.001
<i>Telehealth</i>	71.4	(14.8)	63.1	(15.6)	-0.50			
PTSD severity: PCL								
<i>In person</i>	58.7	(11.3)	55.2	(12.7)	-0.27	-.40	.14	<b>Time:</b> F(1,50) = 4.46; p =.04
<i>Telehealth</i>	63.2	(10.4)	58.8	(12.5)	-0.36			

Note: In person,  $n = 21$ ; Telehealth,  $n = 31$ ; SD = standard deviation; CAPS = Clinical Administered PTSD Scale; PCL = PTSD Checklist

<sup>a</sup> Effect size within group was derived from a repeated measures ANOVA of pre- to post- changes in measures within each group, adjusted for sample size (Hedge's  $g$ ).

<sup>b</sup> Effect size between groups was adjusted for sample size.

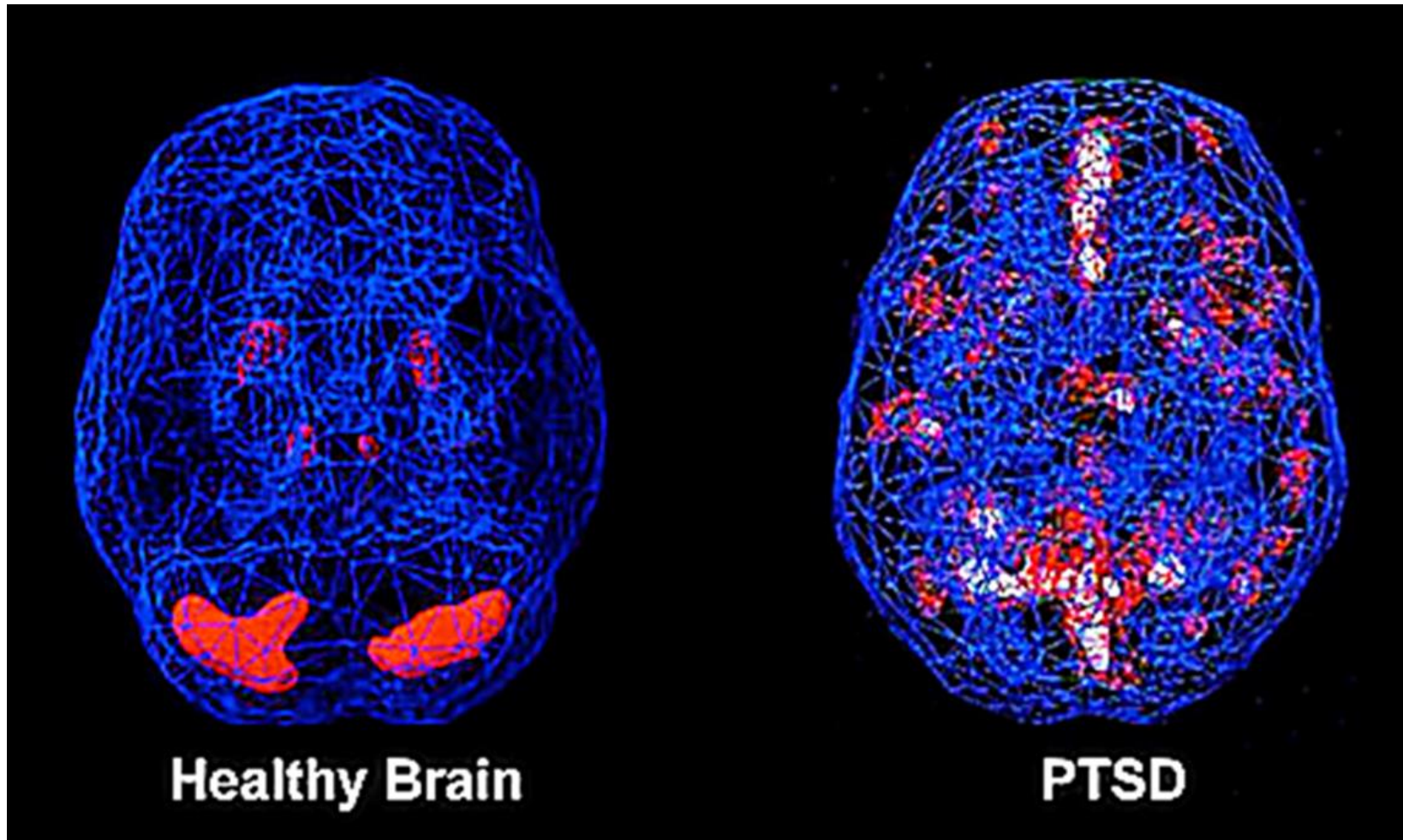
<sup>c</sup> Effect size between groups for post-intervention was adjusted for sample size and pre-intervention differences by subtracting the pre-intervention effect size from post-intervention effect size (Durlak, 2009).

<sup>d</sup> Degrees of freedom differ slightly between analyses for CAPS and PCL due to missing data.

Effect size conventions: .20 = small effect; .50 = medium effect; .80 = large effect (Cohen, 1988)



# Traumatic Stress Changes the Brain

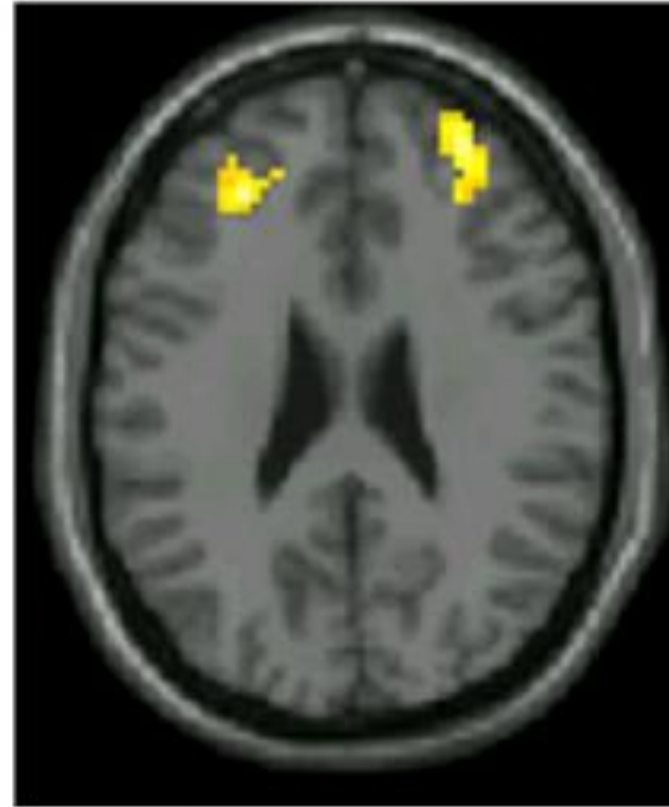




# Brains of Veterans with PTSD Who Did Not or Did Receive Mindfulness Meditation Training



No Mindfulness



Mindfulness





"Live each moment. Practice being mindful.  
Be present in... Hold on, I have to take this."



# Mindfulness-Based Stress Reduction

- Combines mindfulness meditation and gentle yoga (Kabat-Zinn, 1990)
- Eight 2.5 hour weekly group sessions
  - Usually includes a full-day meditation retreat
- Groups of up to 25 people







# Mindfulness-Based Stress Reduction



- Brain changes occur in eight weeks (Holzel et al., 2011; Kilpatrick et al., 2011)
- MBSR decreases depression and avoidance in adult survivors of child abuse (Kimbrough et al., 2013)
- MBSR decreases PTSD symptoms in survivors of domestic violence (Smith, 2009)
- MBSR reduces stress and depression, and improves sleep, in Veterans (Kleupfel et al., 2013)
- MBSR reduces depression and PTSD symptoms in combat Veterans (Colgan et al., 2016; Kearney et al., 2012; Polusny et al., 2015)



# MBSR in the Treatment of Co-Occurring mTBI

- MBSR improved attention and decreased PTSD symptoms in a pilot study of Veterans with mTBI and PTSD (Cole et al., 2015)
- Modified MBSR (12 weeks) decreased depression in people with TBIs (Bedard, Felteau et al., 2003, 2005)





# Mindfulness-Based Cognitive Therapy

- Combines cognitive therapy and MBSR (Segal, Williams, & Teasdale, 2002)
- Originally was developed for depression, particularly for people with recurrent depression
- Eight sessions lasting two hours for up to 12 people
- Unlike Cognitive-Behavioral Therapy, MBCT does not try to change the content of thoughts
  - Instead, it focuses on the awareness of and changing the relationship to one's thoughts
  - Ex: "Thoughts are not facts"
  - Ex: "I am not my thoughts"





or








# **Meditation Break: Waterfall Meditation**





# Mindfulness-Based Cognitive Therapy

- 
- MBCT decreased recurrence of depression in 77% of patients with three or more depressive episodes (Teasdale et al., 2000)
  - MBCT works as well as antidepressant therapy in preventing depressive relapse (Segal et al., 2010)
  - MBCT reduced depression and, to a lesser extent, mania in Bipolar Disorder (Miklowitz et al., 2009)
  - MBCT modified for PTSD also reduced PTSD symptoms (King et al., 2013)



# MBCT and TBI

- Modified MBCT decreases depression after traumatic brain injuries (Bedard et al., 2012)
  - Modifications include two extra sessions, shortened sessions, frequent reviewing, visual aids





Before Mindfulness



After Mindfulness







# Advantages of Using Mindfulness Meditation with Veterans

- Mindfulness Meditation can be taught in non-mental health settings
  - Many Veterans do not want to attend mental health treatment because of the stigma
- Mindfulness meditation can be both presented and used as a wellness class
- Mindfulness meditation does not require exploration of past experiences and traumas
- Guided meditations are available for free on podcasts and apps





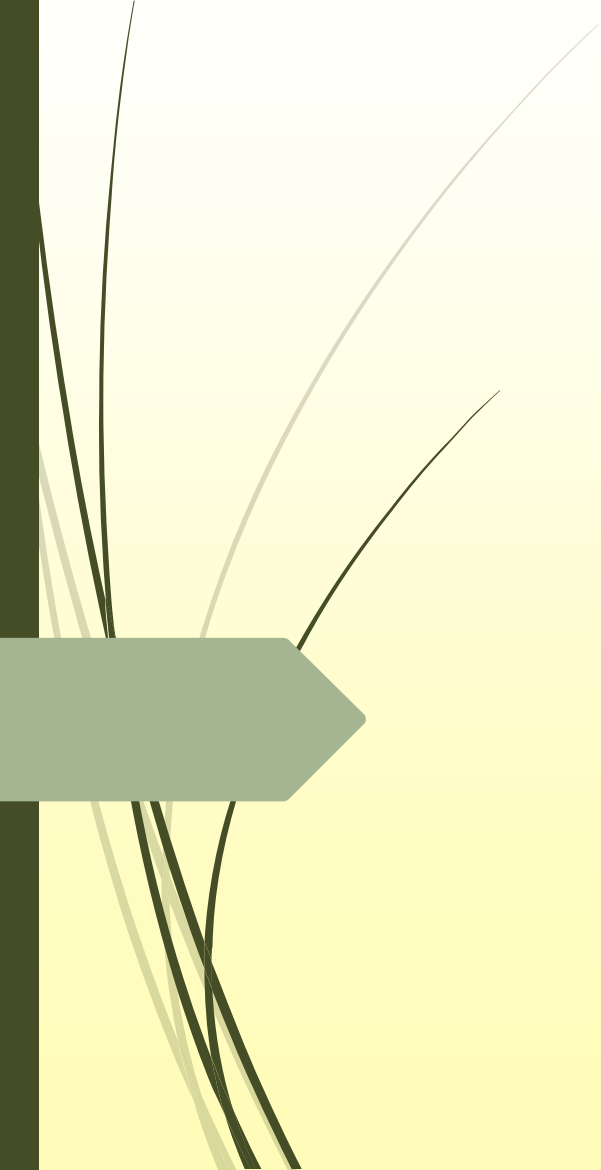
## *Mindfulness*

Keep within reach

Take several times  
daily for best  
results



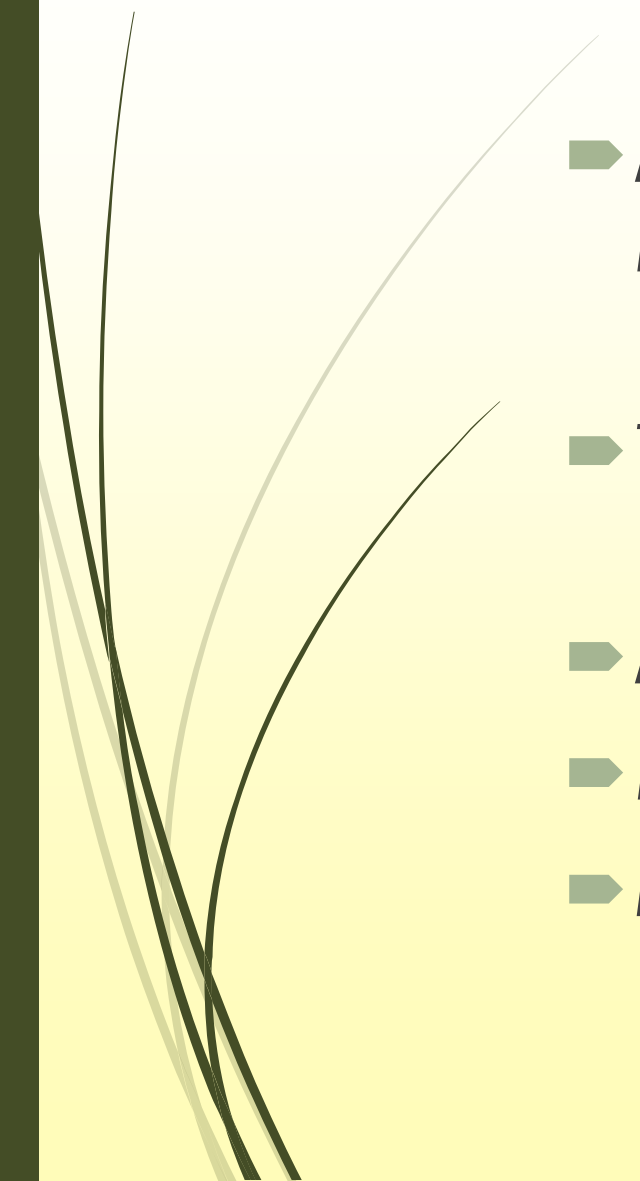
# Resources







# Mindfulness Books

- 
- *Mindfulness for Beginners: Reclaiming the Present Moment - and Your Life* (2011), Jon Kabat-Zinn
  - *The Miracle of Mindfulness* (1999), Thich Nhat Hanh
  - *Meditation for Beginners* (2008), Jack Kornfield
  - *Radical Acceptance* (2012), Tara Brach
  - *How to Meditate* (2013), Pema Chodron





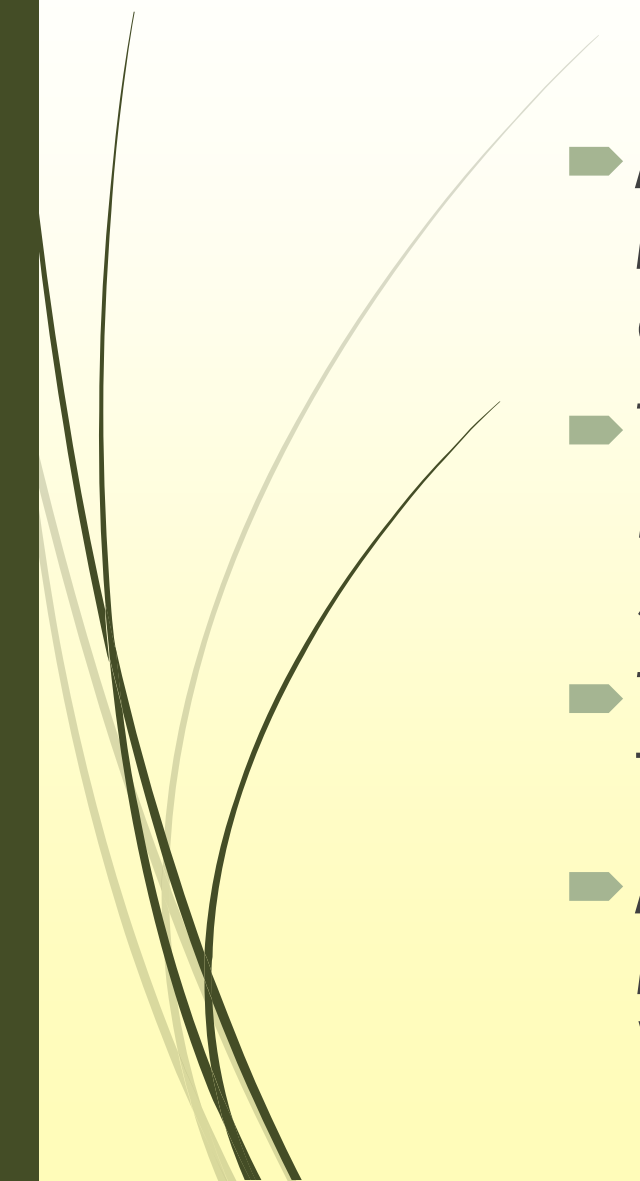
# MBSR Books

- *Full Catastrophe Living (2<sup>nd</sup> ed.)* (2013), Jon Kabat-Zinn
- *Wherever You Go, There You Are* (2005), Jon Kabat-Zinn
- *A Mindfulness-Based Stress Reduction Workbook* (2010), Bob Stahl, Elisha Goldstein, Saki Santorelli and Jon Kabat-Zinn
- *The MBSR Home Study Course* (2016), Saki Santorelli and Florence Meleo-Meyer





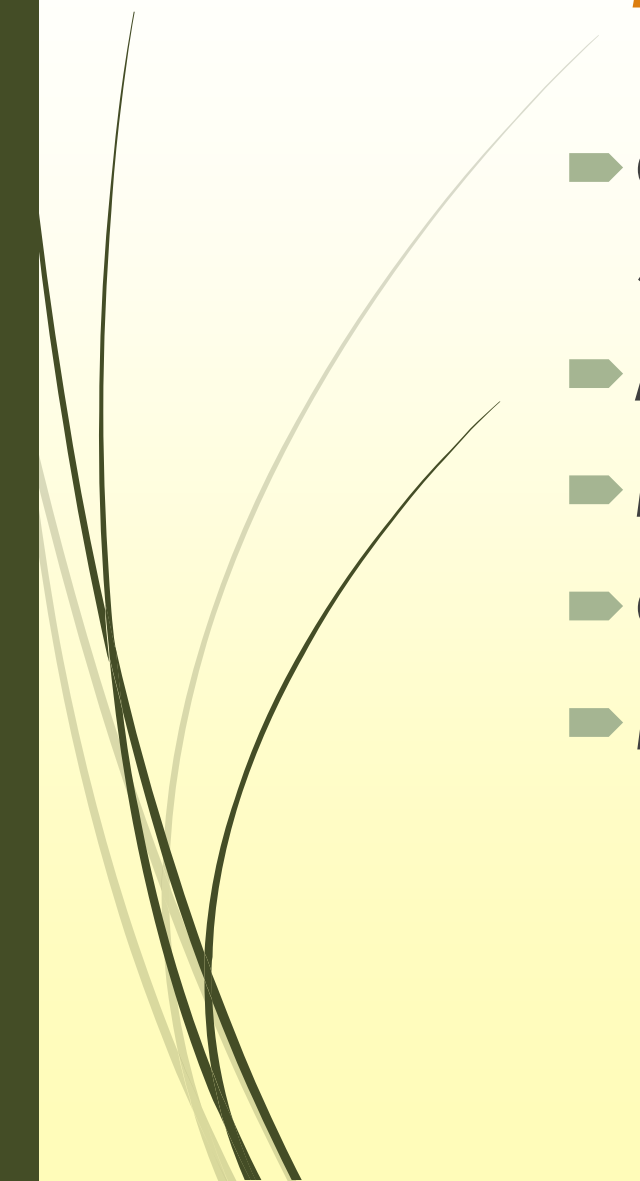
# MBCT Books

- 
- *Mindfulness-Based Cognitive Therapy for Depression* (2012) Zindel Segal, Mark Williams, and John Teasdale
  - *The Mindful Way Through Depression* (2007), Mark Williams, John Teasdale, Zindel Segal, and Jon Kabat-Zinn
  - *The Mindful Way Workbook* (2014), by John Teasdale and Mark Williams
  - *Mindfulness: An Eight Week Plan for Finding Peace in a Frantic World* (2012), by Mark Williams and Danny Penman





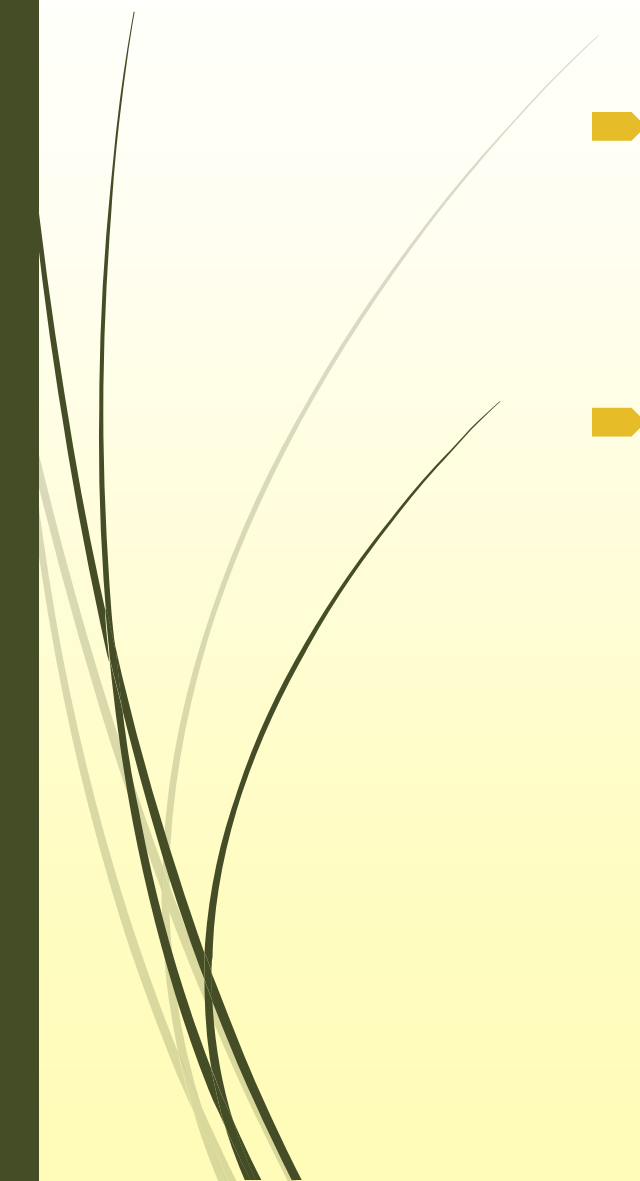
# Mindfulness Meditation CDs

- *Guided Mindfulness Meditation Series 1, 2 & 3*, Jon Kabat-Zinn
  - *Mindfulness Meditation*, Tara Brach
  - *Natural Awareness*, Pema Chodron
  - *Guided Meditation*, Jack Kornfield
  - *Plum Village Meditations*, Thich Nhat Hanh
- 





# Online MBSR Courses

- Online video course:  
<http://www.soundstrue.com/store/the-mbsr-online-course-3226.html>
  - Free online MBSR course:  
<http://palousemindfulness.com/selfguidedMBSR.html>
- 



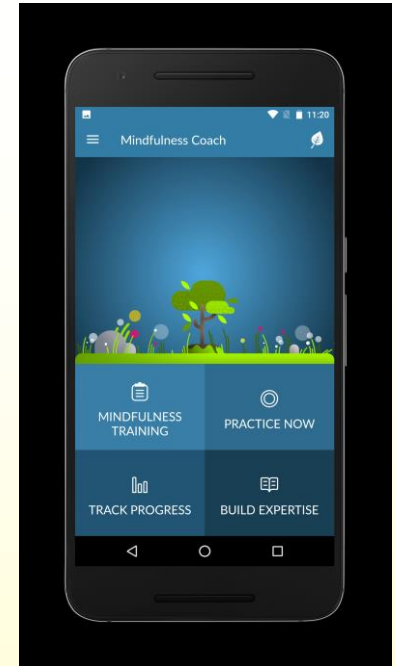




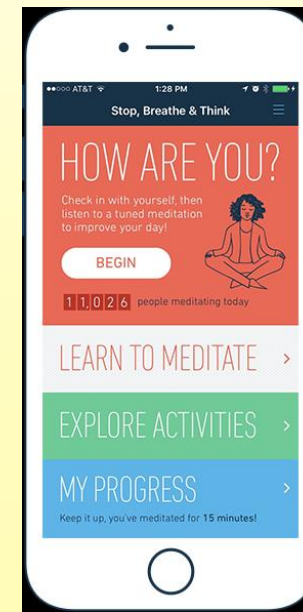
# Mindfulness Apps

## ➤ Mindfulness Coach

<http://www.t2health.org/mobile-apps>



## ➤ My Life: Stop, Breathe & Think





**Contact:**

**Brian L. Meyer, Ph.D.**

**Brian.Meyer@va.gov**

