



Mindfulness and Self-Compassion Interventions for Veterans

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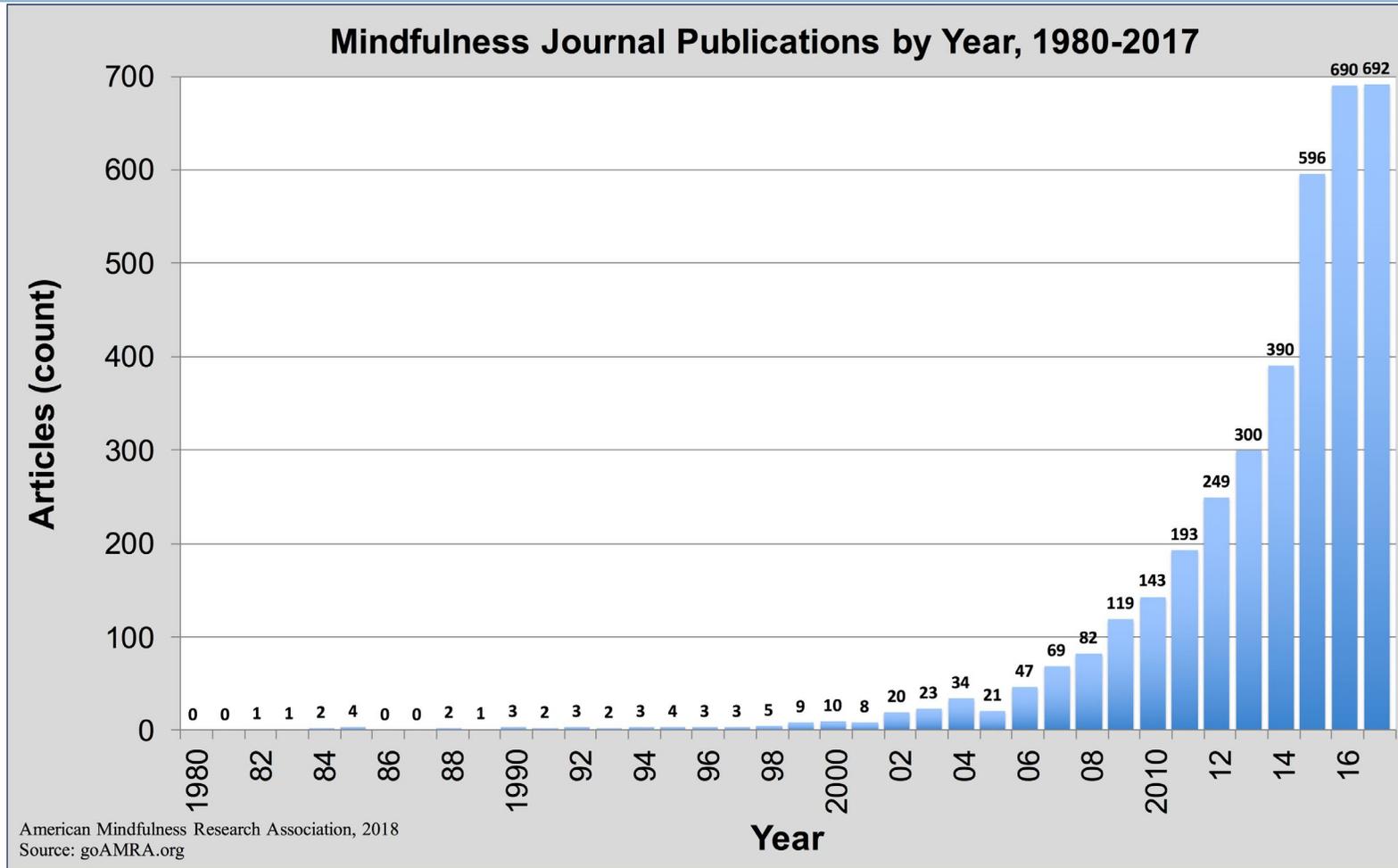
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Presentation Overview

- ❑ What is Mindfulness?
 - ❑ Why Mindfulness for Veterans?
 - ❑ How is learning mindfulness theorized to improve health?
 - ❑ An overview of some key mindfulness trials.
- ❑ What are Self-Compassion Interventions?
 - ❑ How kindness and self-compassion might improve PTSD
 - ❑ Results from a large trial of loving-kindness for PTSD

There has been an explosion of academic interest in Mindfulness



Mindfulness-Based Interventions

- Mindfulness-Based Stress Reduction (MBSR)
 - 8-week introduction to mindfulness practice; not manualized
 - 2.5 hour class 1x/week, all-day retreat week 6
 - Body scan, breathing, yoga, walking meditation taught
- Mindfulness-Based Cognitive Therapy (MBCT)
 - 8-week introduction to mindfulness practice; manualized
 - 2 hour class 1x/week, body scan, breathing, yoga, walking
- Also: Mindfulness-Based Childbirth and Parenting, Mindfulness for Teens, Mindfulness-Based Relapse Prevention, Mindful Eating, Mindful Self-Compassion...and more.



What is Mindfulness?



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What is Mindfulness?

- Mindfulness is synonymous with “awareness”
- Mindfulness involves attention
 - ▣ “The awareness that emerges by paying attention, on purpose, in the present moment, and without judgment” (Kabat-Zinn)

Key Psychological Processes Influenced by Mindfulness

- Decreases rumination, a key factor in many types of mental illness
 - ▣ Promotes ‘Being Mode of Mind’ rather than ‘Doing Mode of Mind’
- Increases self-compassion, which facilitates ‘uncoupling’ of thoughts and symptoms (Kuyken et al., 2010)
- Enhances decentering (or metacognition; defusing) - seeing “thoughts as thoughts” which are not necessarily true, nor synonymous with the self.

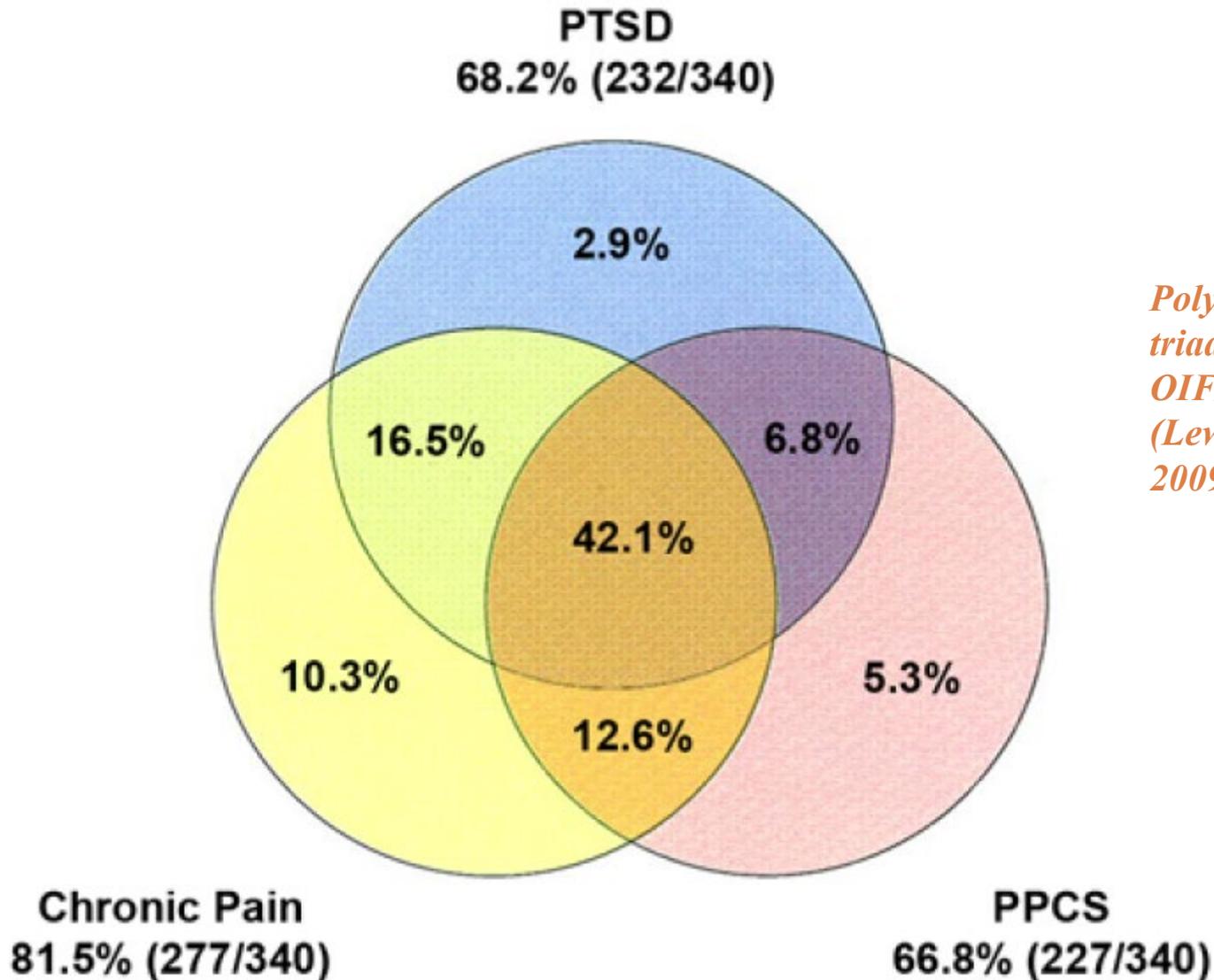
*“I am larger and better than I thought.
I did not think I held so much goodness.”*

Walt Whitman



Why Mindfulness for Veterans?

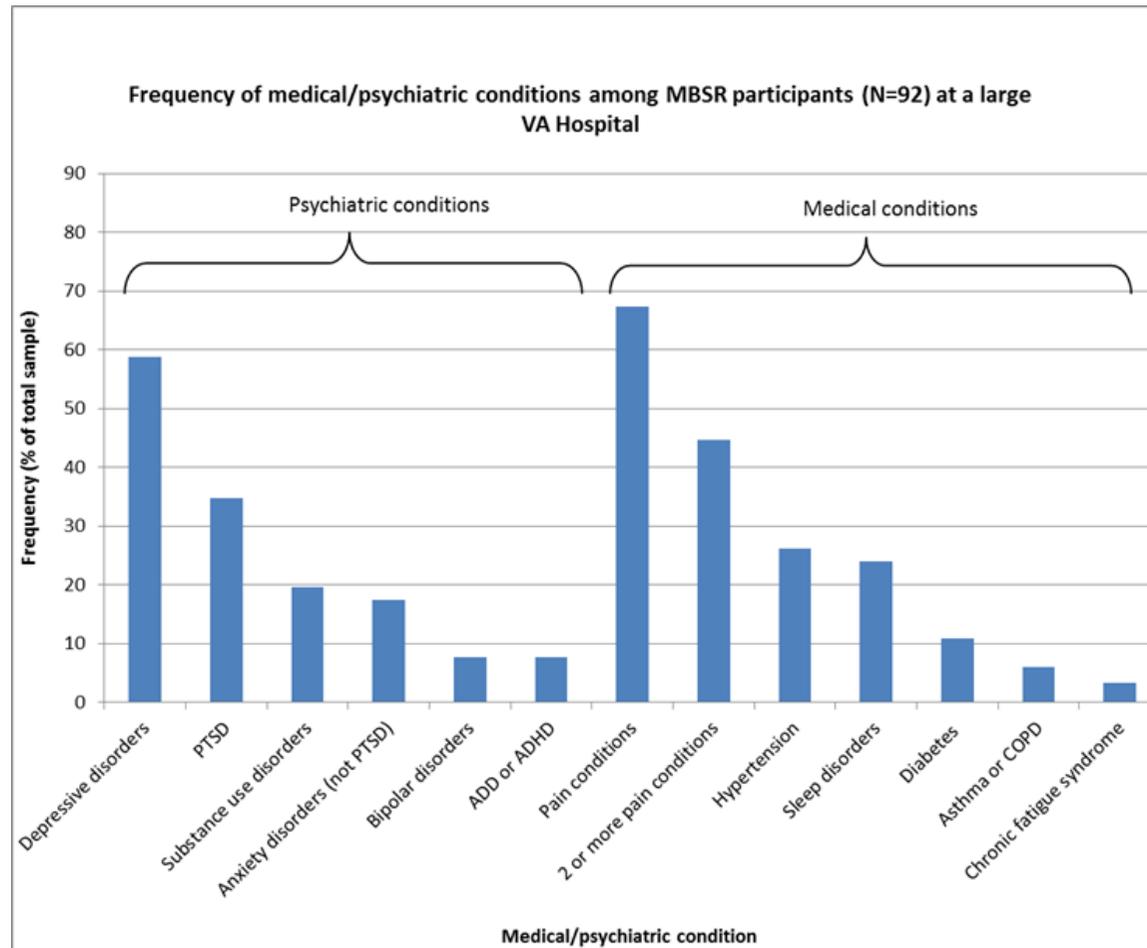
Chronic Pain, PTSD and Traumatic Brain Injury are Seldom Solitary



*Polytrauma "P3"
triad in 340
OIF/OEF Veterans
(Lew et al, JRRD
2009)*

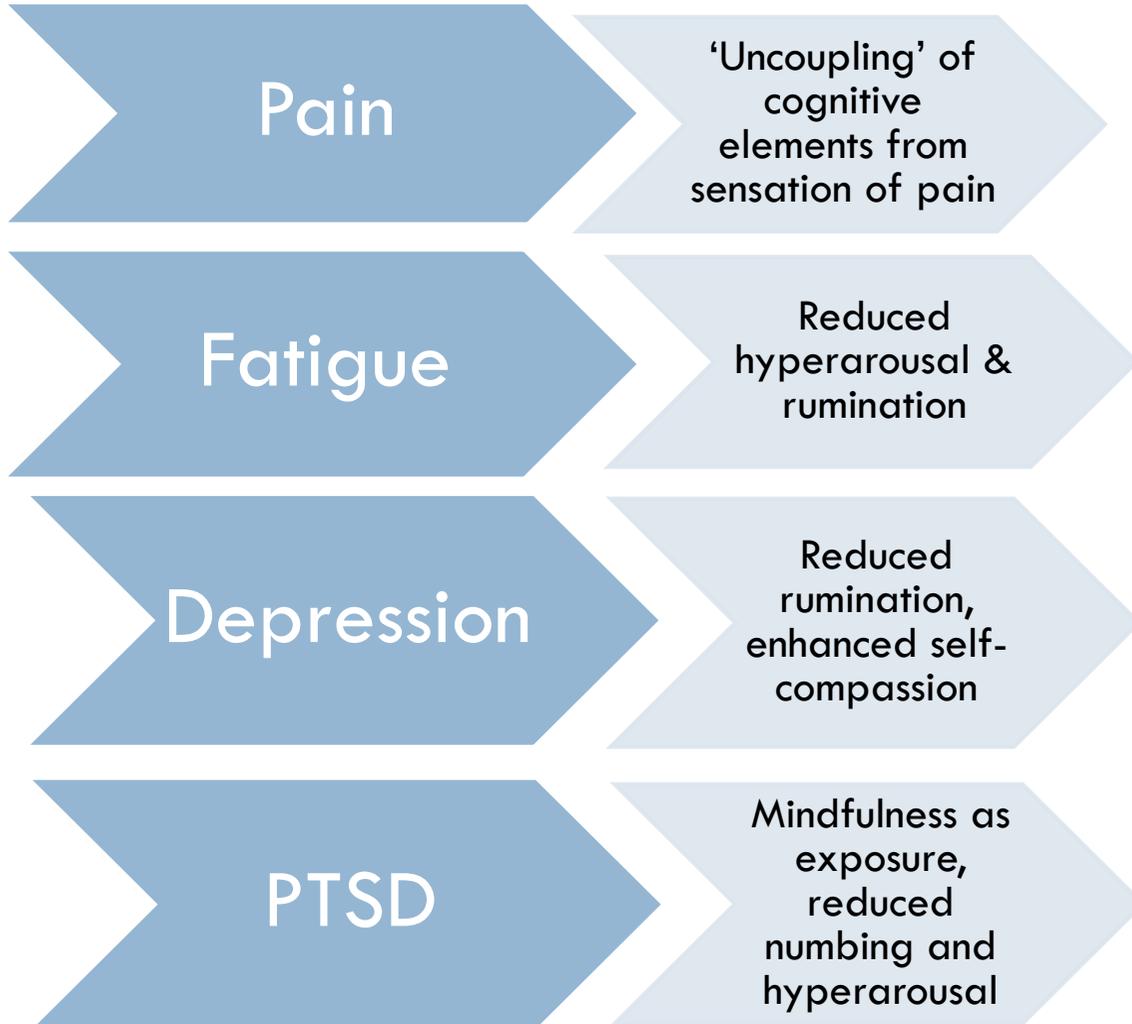
Why Mindfulness for Veterans?

- There is a high rate of co-occurring mental and physical health conditions among Veterans



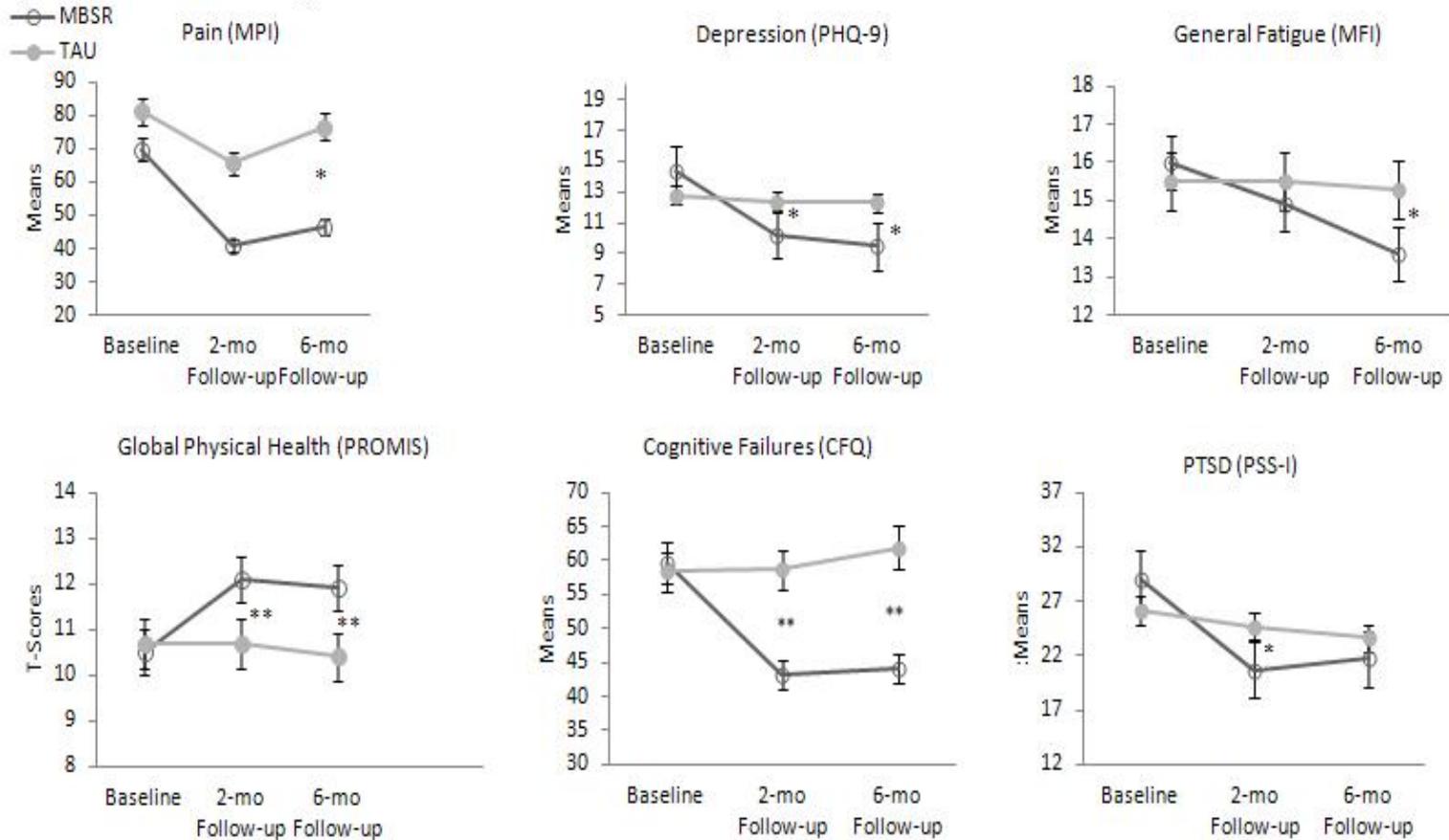
Mental and physical health diagnoses among 92 Veterans who participated in Mindfulness-Based Stress Reduction. Kearney et al, Jo Clin Psychol; 2011.

Mindfulness Holds the Potential to Affect Multiple Symptoms Simultaneously



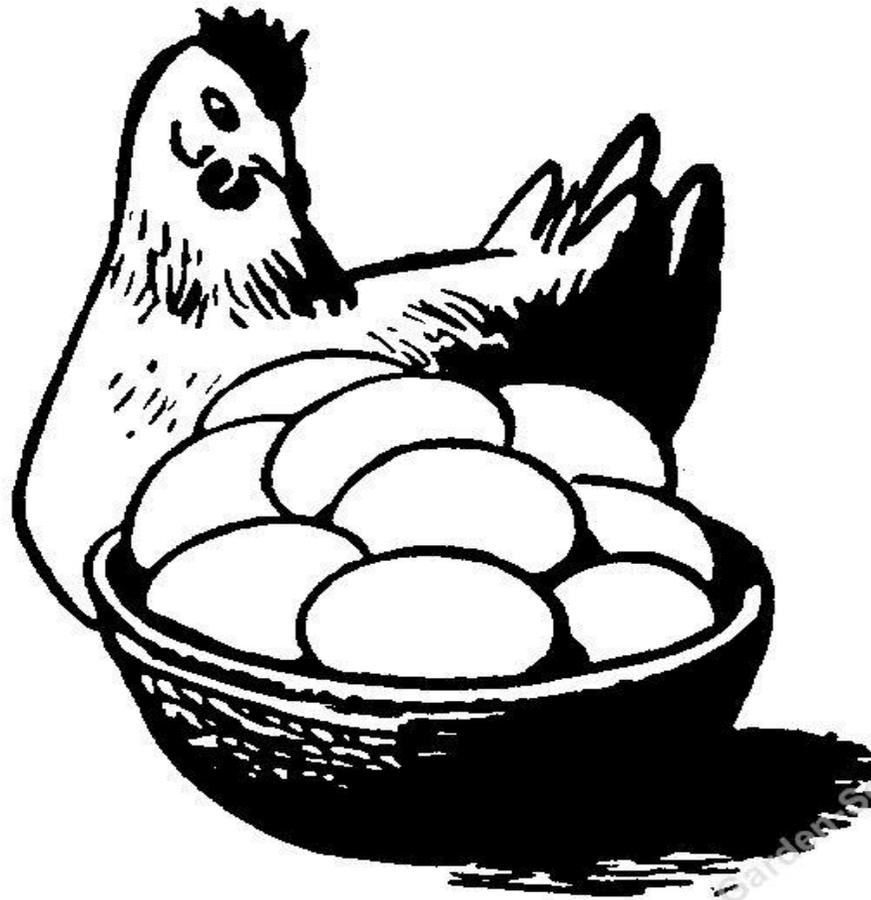
Summary RCT Results: Mindfulness For Gulf War Illness (N = 55)

Figure 1: Intent-to-Treat Analysis



Note. * $p \leq .05$, ** $p \leq .01$; MPI= McGill Pain Inventory, PHQ-9= Patient Health Questionnaire, MFI= Multidimensional Fatigue Inventory, PROMIS= Patient Reported Outcomes Measurement Information System, CFQ= Cognitive Failures Questionnaire, PSS-I=PTSD Symptom Scale Interview

Pain & Depression



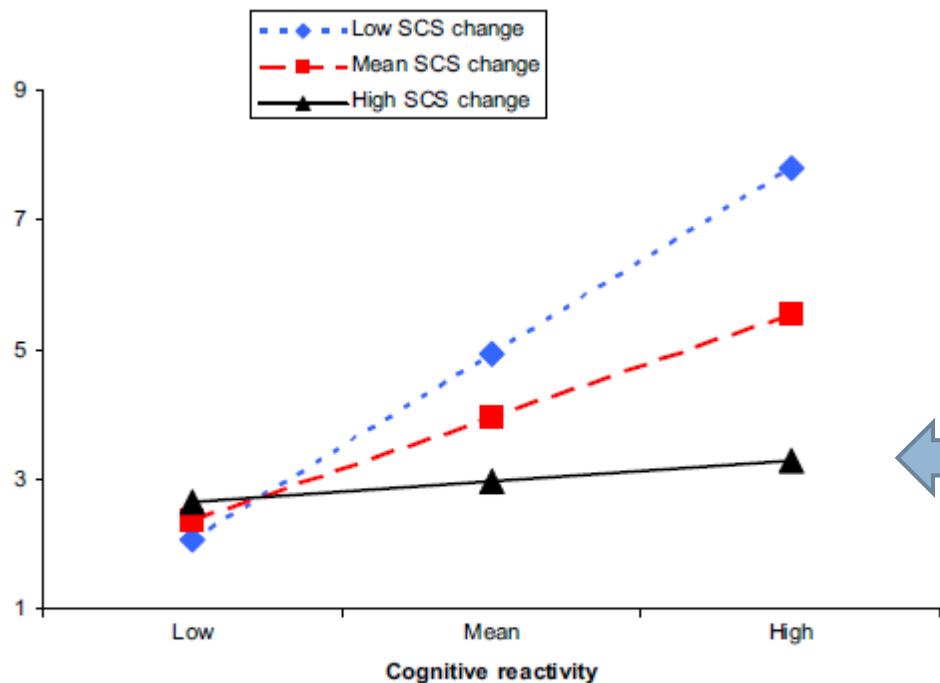
Psychological factors influencing experience of pain

- Emotional state
 - ▣ Negative emotions / stress = ↑ pain
 - ▣ Positive emotions = ↓ pain
- Attentional influences
- Beliefs and expectations about experience of pain and ability to control pain
- Pain history (cultural, learning effects)
- General physical health

← Where mindfulness might play a role

Change in Self-Compassion *Uncouples* the Relationship Between Depressive Thoughts and Symptoms of Depression 15 Months Later

Depressive symptoms 15 months after participation in 8-week mindfulness course (MBCT)



Provocation of Depressive Style of thinking after sad mood induction

For those who learned self-compassion, provoking depressive thoughts no longer resulted in symptoms of depression

MBCT Markedly Reduces Rate of Depressive Relapse Compared to Usual Care

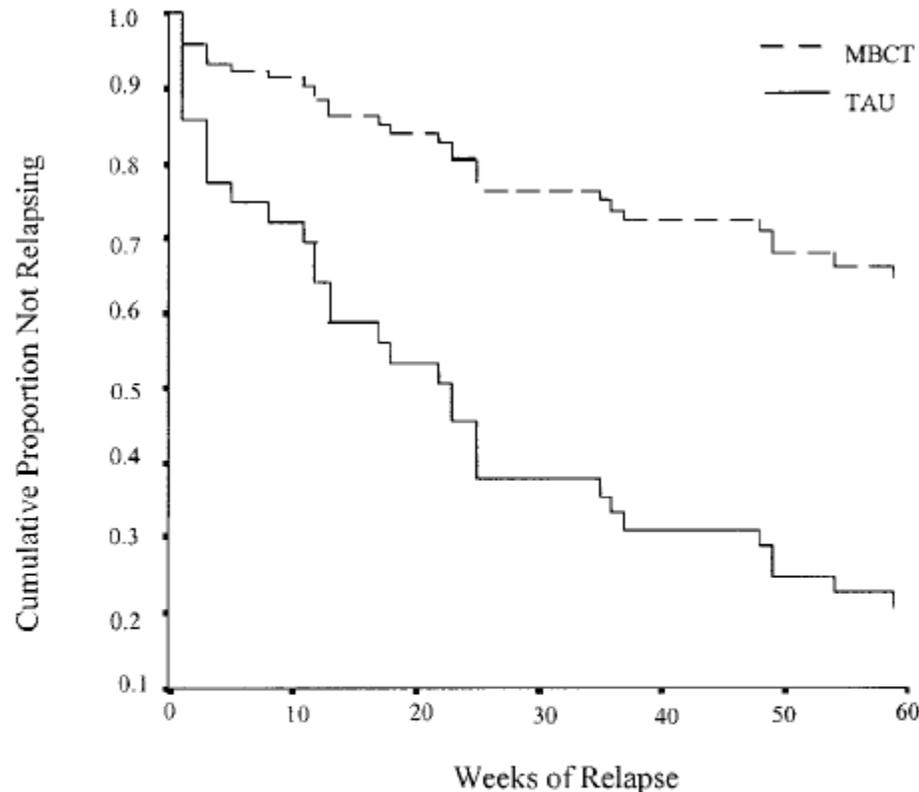


Figure 1. Survival (nonrelapse/nonrecurrence) curves comparing relapse/recurrence to *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) major depression for treatment-as-usual (TAU) and mindfulness-based cognitive therapy (MBCT) in patients with three or more previous episodes of major depression (intent-to-treat sample).

Ma, S. H., & Teasdale, J. D. (2004). *JCCP*, 72(1), 31.

Prevention of Depressive Relapse: MBCT and Antidepressants Produce Similar Outcomes

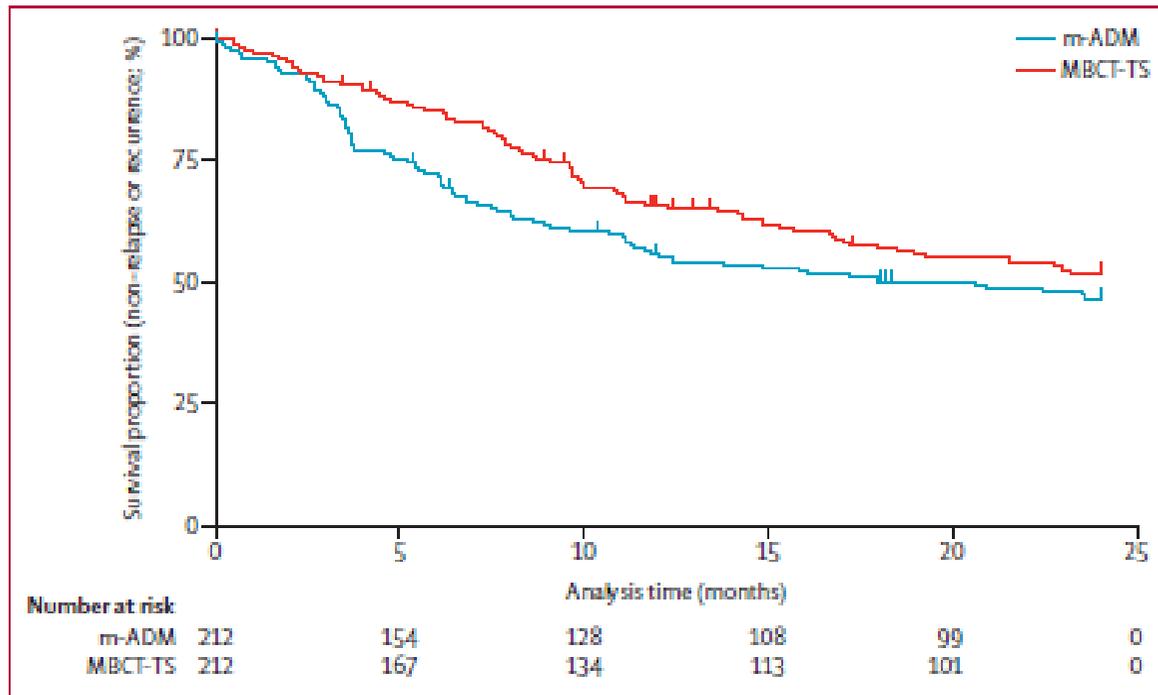


Figure 2: Survival curves (of not relapse or recurrence) over a 24-month follow-up period for the Intention-to-treat population

m-ADM=maintenance antidepressant medication. MBCT-TS= mindfulness-based cognitive therapy with support to taper or discontinue antidepressant medication.

Kuyken et al, (2015).
The Lancet.

Mindfulness for PTSD

- DSM-5 criteria for PTSD
 - ▣ Intrusive, re-experiencing symptoms
 - ▣ Avoidance of trauma reminders or emotions
 - ▣ Negative changes in cognitions and mood
 - ▣ Changes in arousal and reactivity

Cognitive avoidance	
	<ul style="list-style-type: none">• Try not to think about the trauma• Occupy mind at all times
Emotional avoidance	
	<ul style="list-style-type: none">• Control feelings, numb emotions• Avoid anything that could cause feelings (positive or negative)• Drink alcohol, take drugs
Behavioral avoidance	
	<ul style="list-style-type: none">• Avoid place where event occurred• Avoid wearing similar clothes• Avoid crowded places• Avoid other people, looking at others

Adapted from Ehlers, A. & Clark, D.M.. A cognitive model of posttraumatic stress disorder. Behaviour Research and Therapy 38 (2000) 319-345.

How Mindfulness Practice is Hypothesized to Influence PTSD

- Fosters approach, rather than avoidance, of distressing thoughts and feelings
 - Considered a form of exposure therapy
- Increased self-compassion might lead to reduced anger, shame and guilt.
- Decreased rumination might reduce PTSD sx
- Potential for enhanced functionality despite stable symptoms ('freedom within suffering')

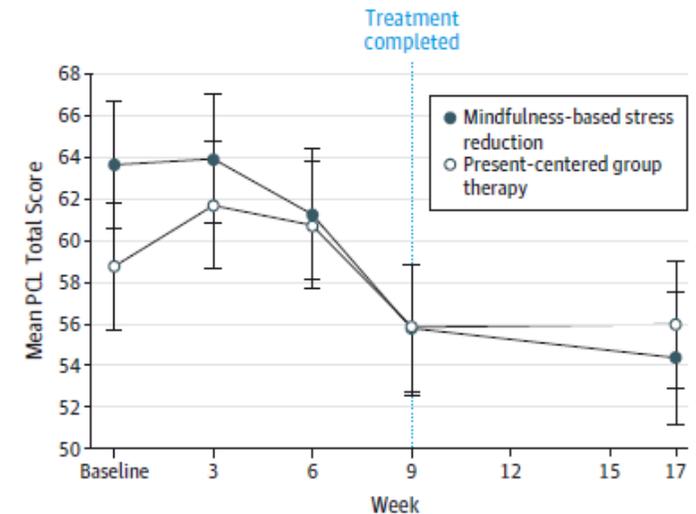
Mindfulness for PTSD

- Quote from a Veteran with PTSD after MBSR:
- “I think ultimately I was looking to gain some insight and peace on the suffering that endure from PTSD...I’ve been moderately successful managing pain through meditation on my own so I hoped maybe to get a better tool to do that with. But really the primary reason for going was because PTSD...the feeling of remorse, ..depression, sadness...guilt, that’s the key word. Guilt. And just a kind of a purposeless existence.”

MBSR for PTSD Among Veterans (RCT #1)

- Polusny et al compared MBSR to Present Centered Therapy (PCT) for combat veterans with PTSD (N=116)
- Greater sx improvement for MBSR c/w PCT..
- More in MBSR (49%) had improvement in symptoms in the range considered clinically meaningful as compared to PCT (28%).

Figure 2. Posttraumatic Stress Disorder Symptom Severity on the PTSD Checklist (PCL) as a Function of Treatment Group



No. of patients	Baseline	3	6	9	17
Mindfulness-based stress reduction	58	54	50	52	47
Present-centered group therapy	58	56	54	57	57

Data are intention-to-treat means; error bars indicate 95% CIs.

Polusny et al. JAMA, 314(5), 456-465.



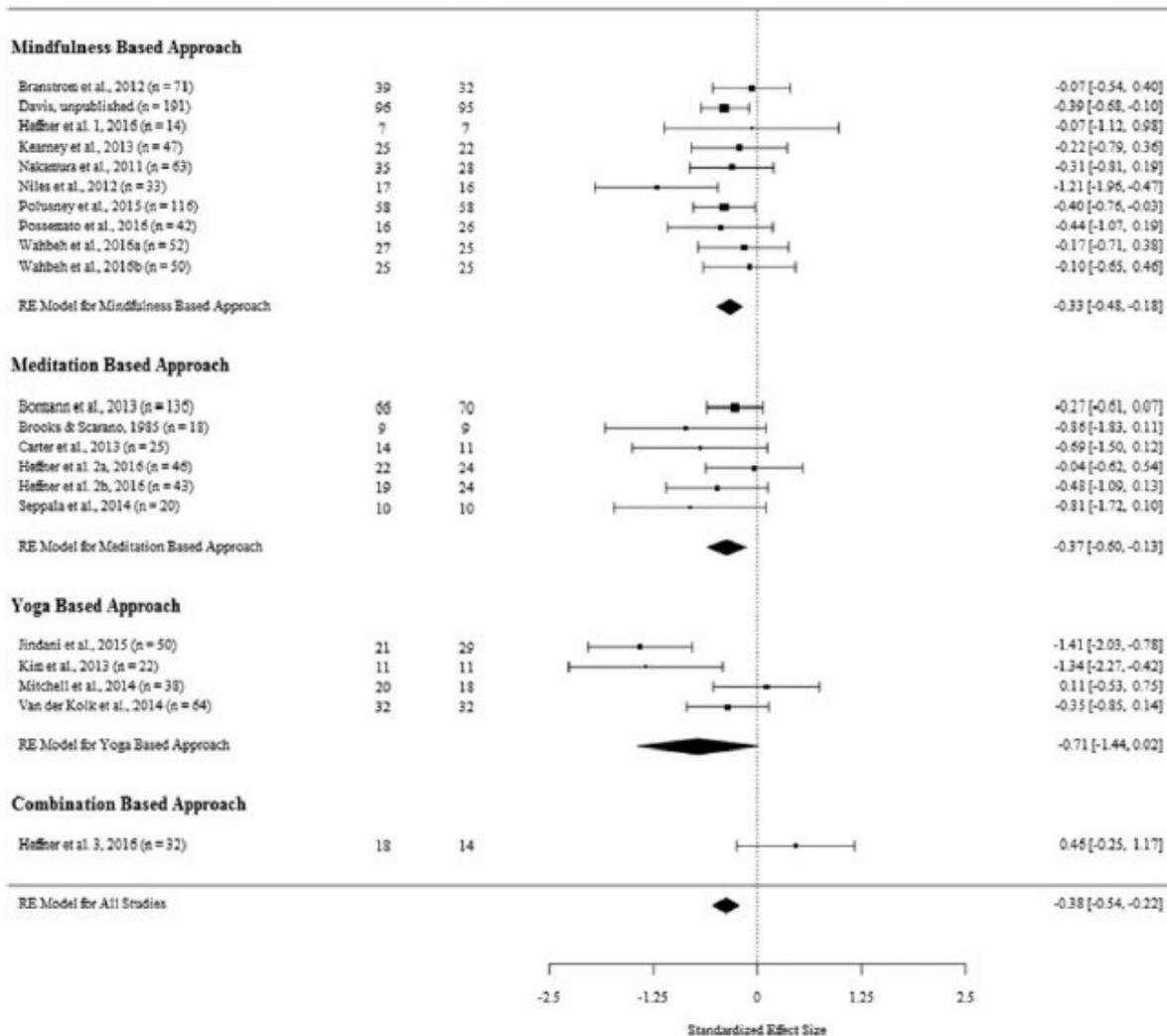
MBSR for PTSD Among Veterans (RCT #2)

- Davis et al compared MBSR to Present Centered Therapy (PCT) for veterans with PTSD (N=214)
 - ▣ Both groups had 90-minute sessions.
 - ▣ Both MBSR and PCT improved over time with no significant difference in outcomes on CAPS-IV
 - ▣ MBSR was superior on PCL measure, but not maintained at week 16.
 - ▣ No difference in rates of significant reduction in CAPS (45% vs. 38%).
- Conclusion: Both MBSR and PCT appeared to have beneficial effects for Veterans with PTSD.

Davis et al. Psychiatry Res Clin Practice (2018)



Meta-Analysis of MBIs for PTSD



Included 19 RCTs

Significant small to medium effect ($d = -0.39$)



MBSR for PTSD: Which facets of mindfulness predict improvement in which PTSD symptom clusters?

- 113 Veterans with completed measures of PTSD and mindfulness before and after MBSR.
- The facets of mindfulness most associated with PTSD symptom reduction were:
 - ▣ Acting with Awareness (i.e., present moment attention).
 - ▣ Non-Reactivity.
- The PTSD symptom clusters most strongly associated with increased mindfulness were:
 - ▣ Hyperarousal.
 - ▣ Emotional Numbing.

Stephenson, Simpson, Martinez, Kearney (2016), J Clin Psychol.



Qualitative Research: Themes Identified from Veterans with PTSD after MBSR

- ▣ Dealing with the past
- ▣ Staying in the present
- ▣ Acceptance of adversity
- ▣ Breathing through stress
- ▣ Relaxation
- ▣ Openness to self and others
 - Note: In this study, no participants described MBSR practices as too difficult due to PTSD.

Schure, Simpson, Martinez, Sayre, Kearney (2018). Mindfulness-Based Processes of Healing for Veterans with PTSD. JACM.

Quotations from Veterans with PTSD after MBSR

- ▣ *There's a lot of introspection involved, and it's not necessarily fun sometimes, going back and opening those locked doors, but it helps. It helps you get better; it helps you deal with it.*
- ▣ *I have moments of clarity where I can reach that peace and forgiveness and I can start to relieve some of that guilt. And I seem to have more of those moments when I'm following that path. They don't last very long, you know, minutes, hours. I've never had them last longer than an hour or two. But that seems to be the path that's taking me to some relief.*

Kindness & Self-Compassion Interventions

- Multiple available interventions:
 1. Loving-Kindness Meditation (LKM)
 2. Mindful Self-Compassion (MSC) Training
 3. Compassionate Mind Training
 4. Cognitively-Based Compassion Training
 5. Compassion Cultivation Training

Loving-Kindness Meditation (LKM)

- *What is Loving-Kindness Meditation?*
 - *metta*: ‘unconditional friendliness,’ ‘good heartedness,’ ‘agape’ - Not a sentimental love
 - A practice of positive intention
 - Involves repetition of phrases of positive intention

Theorized Role of Self-Compassion and Kindness Interventions for PTSD and Depression

- ❑ Repeatedly eliciting positive emotions may in theory:
 - ❑ Reduce avoidance by increasing the ability to engage painful memories and emotions.
 - ❑ Counteract emotional numbing.
 - ❑ Provide an alternative to habits of self-criticism.
 - ❑ Provide self-support when social support is lacking.
- ❑ Holds potential to address other consequences of trauma:
 - ❑ Moral injury, shame/guilt, interpersonal alienation, loss of meaning

Loving-kindness Meditation (LKM)

- ❑ Classically practiced with 4 phrases that convey positive intent
- ❑ Phrases are typically repeated for a benefactor, self, a beloved friend, a neutral person, a difficult person, and all beings
- ❑ Personally meaningful phrases are chosen, e.g.
 - May I be safe
 - May I be happy
 - May I be healthy
 - May my life unfold with ease

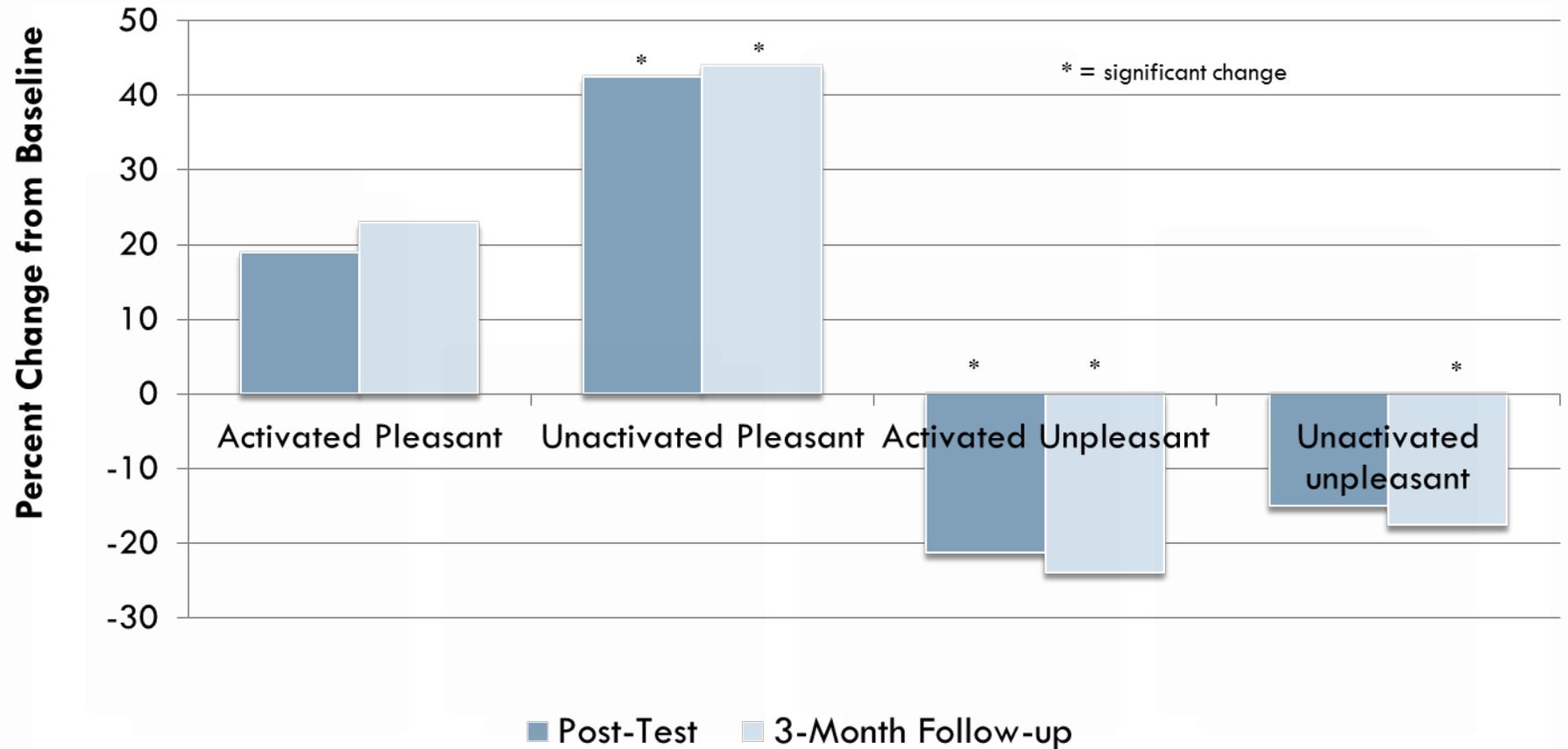
Loving-Kindness Curriculum

- ❑ Weeks 1 & 2: Mindfulness Meditation
- ❑ Week 3: Receiving Kindness
- ❑ Week 4: LKM for Benefactor
- ❑ Week 5: LKM to Self
- ❑ Weeks 6: Beloved Friend
- ❑ Week 7: Neutral Person
- ❑ Weeks 8 & 9: Difficult Person
- ❑ Week 10: Groups (e.g., men/women)
- ❑ Weeks 11 & 12: All Beings

Examples of Post-Traumatic Cognitions That Can be Worked With During LKM Practice

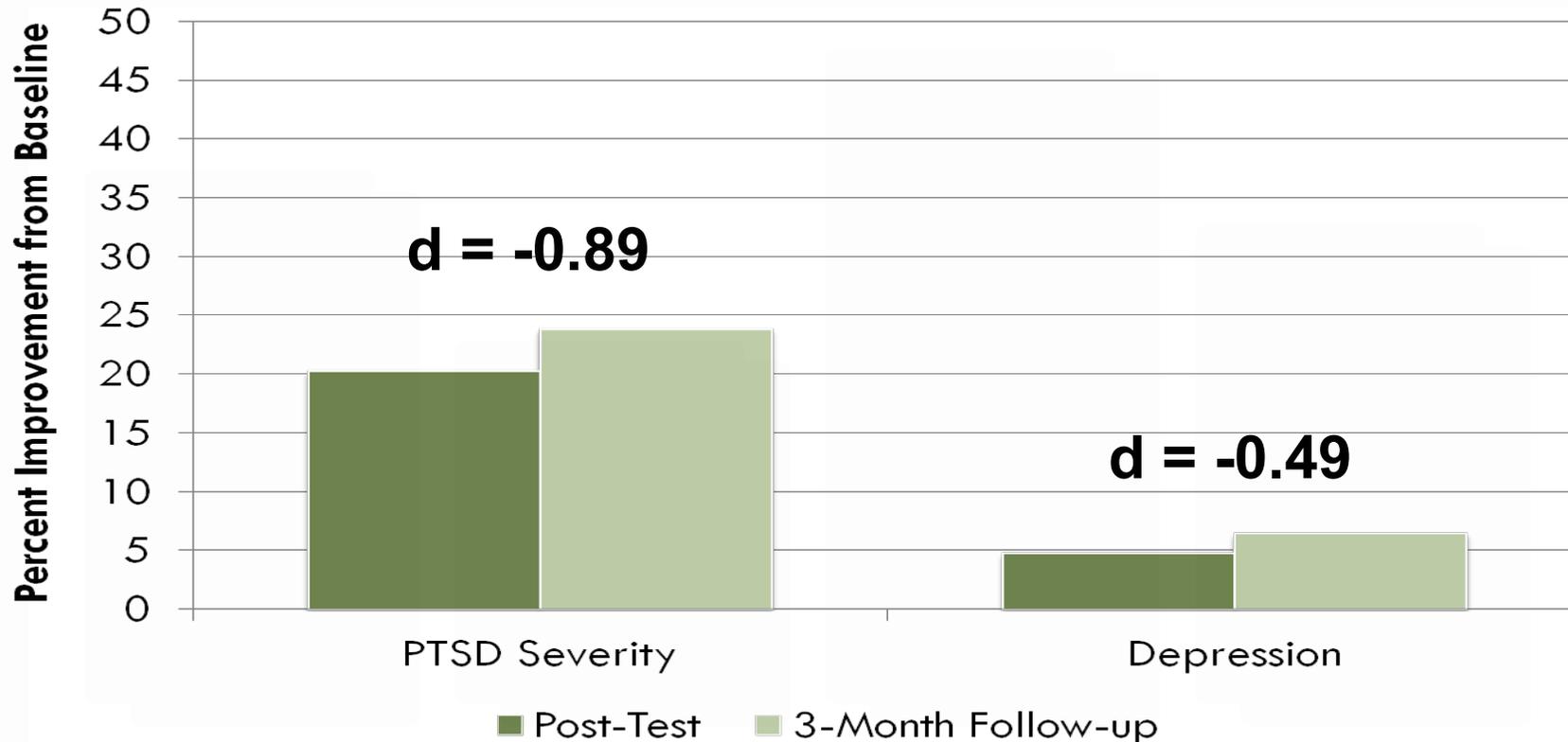
Circumstance	Beliefs and Attitudes
Fact that Trauma Happened to Me	Nowhere is safe. I deserved it. I don't deserve to be happy. I can't trust anyone. People who appear to be generous have other motives.
Persistent PTSD symptoms	I'm dead inside. No one will ever understand me. I cannot cope with stress.
Other people's reactions after trauma	They think I am too weak to cope. I need to appear strong. They just want me to get over it.
Other consequences of trauma (physical, social)	My body is ruined. I am unable to feel close to anyone. I cannot love others again. I'm unlovable. I'm damaged, broken.

Increases in Positive Emotion After LKM for Veterans with PTSD (N=42)



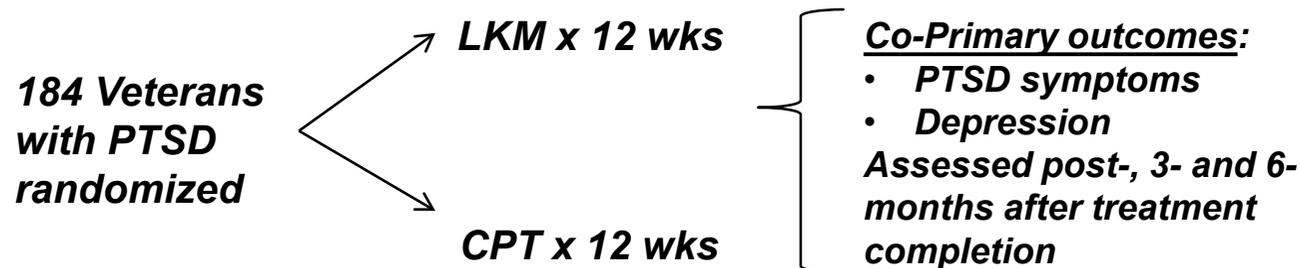
Kearney et al, "Loving-Kindness Meditation and the broaden-and-build theory of positive emotions among veterans with posttraumatic stress disorder." *Medical Care*; 2014; 51: S32-S38

Improvement in PTSD and Depression Before vs. After 12 weeks of LKM (N=42)



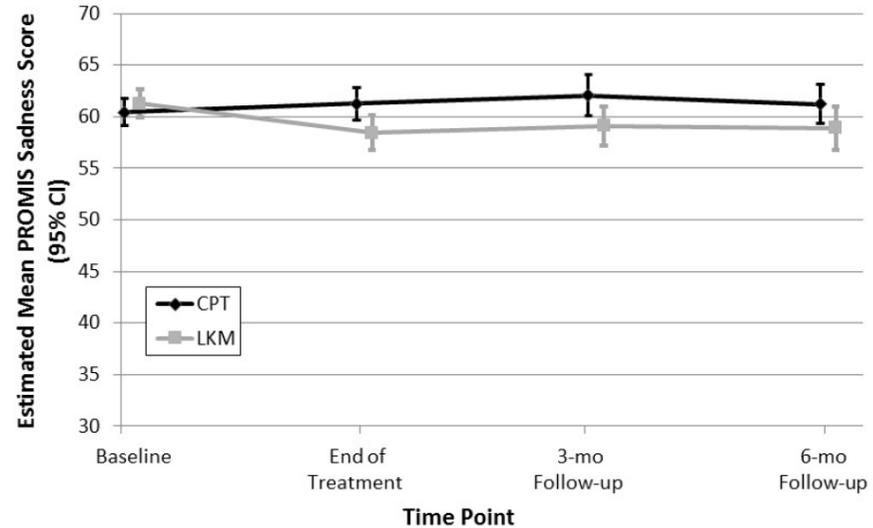
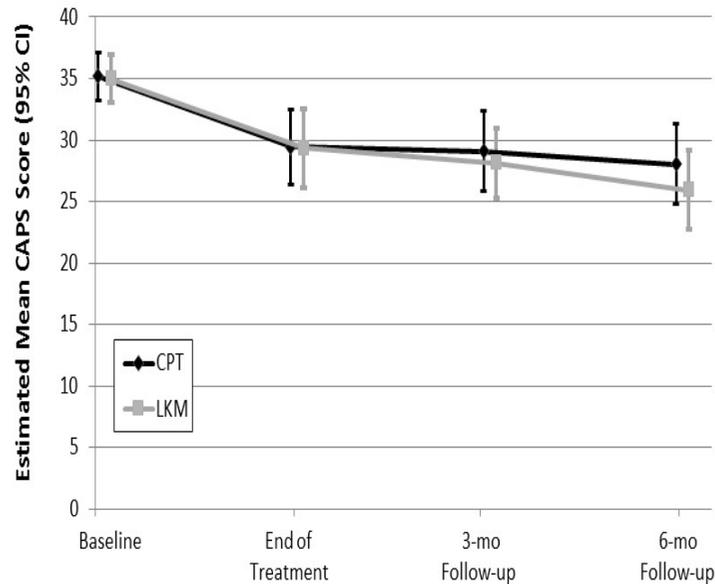
Kearney et al "Loving-Kindness Meditation for Posttraumatic Stress Disorder: A Pilot Study." 2013; 26(4) 426-34. *Journal of Traumatic Stress*

Veterans with PTSD were Randomized to Loving-Kindness Meditation (LKM) or Cognitive Processing Therapy; CPT-C)



- ❑ Inclusion criteria: DSM-5 criteria for PTSD from any cause
- ❑ Exclusion criteria: SUD other than alcohol, high risk of suicide, psychotic disorder, mania, BPD, past-month psychiatric admission
- ❑ Usual care allowed: Medication, individual/group therapy, case management
- ❑ Difference in rate of change between interventions assessed as group x time interaction from baseline to 6-months.
 - ❑ Non-inferiority concluded if lower bound of 95% CI does not extend beyond non-inferiority margin in both ITT and completer analyses

LKM was Non-Inferior to CPT for PTSD and Depression for Veterans with PTSD



- ❑ For PTSD, within-condition effect sizes for LKM ($d=0.66$) and CPT ($d=0.52$) at 6-months.
- ❑ For Depression, small effect favoring LKM post-treatment ($d=0.35$) and 3-months ($d=0.34$), effect size included zero at 6-months ($d=0.24$; 95% CI, $-0.05-0.53$).

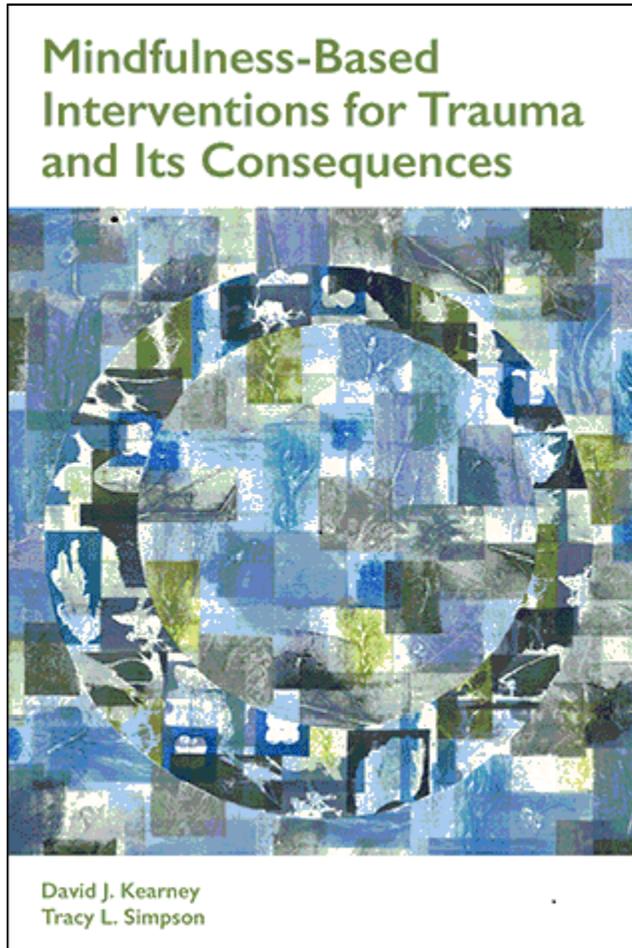
Proportions with Clinically Meaningful Change were Similar for LKM and CPT

PTSD (CAPS-5 Change)	CPT-C	LKM
≥ 5 points worse	13.3%	9.8%
No change	28.3%	27.9%
≥ 5 points improved	58.3%	62.3%
	p = NS	

Depression (PROMIS)	CPT-C	LKM
≥ 4 points worse	33.3%	20.7%
No change	40.0%	36.2%
≥ 4 points improved	26.7%	43.1%
	p = NS	

5 points on CAP-5 and 4 points on PROMIS depression represent approximately $d = 0.5$

A Resource for Providers who offer MBIs to People with Trauma



Freely available to anyone
inside the VA at:

[http://search.ebscohost.com/login.aspx
?direct=true&db=pzh&AN=2019-52028-
000&site=ehost-live](http://search.ebscohost.com/login.aspx?direct=true&db=pzh&AN=2019-52028-000&site=ehost-live)

***Part of the Concise Guides to Trauma Care Series
Published by the American Psychological Association***

LKM Resources

- ❑ 'Healing a Soldier's Heart': A 30-minute documentary film follows 5 Veterans as they progress through LKM classes
 - ❑ Directed by Lisa Hardmeyer
- ❑ If you would like additional information or resources, contact me at david.kearney@va.gov

Acknowledgement and Thanks to

- ❑ Tracy Simpson, PhD, Clinical Psychologist, VA Puget Sound Health Care System; Professor of Psychiatry and Behavioral Sciences, University of Washington School of Medicine
 - ❑ Co-Principal Investigator on LKM vs. CPT study
- ❑ VA Research and Development for funding this work
- ❑ The Veterans who taught us so much

“I am larger and better than I thought. I did not think I held so much goodness.”

Walt Whitman