

The Art & Science of Mindfulness & Resilience

An Introduction



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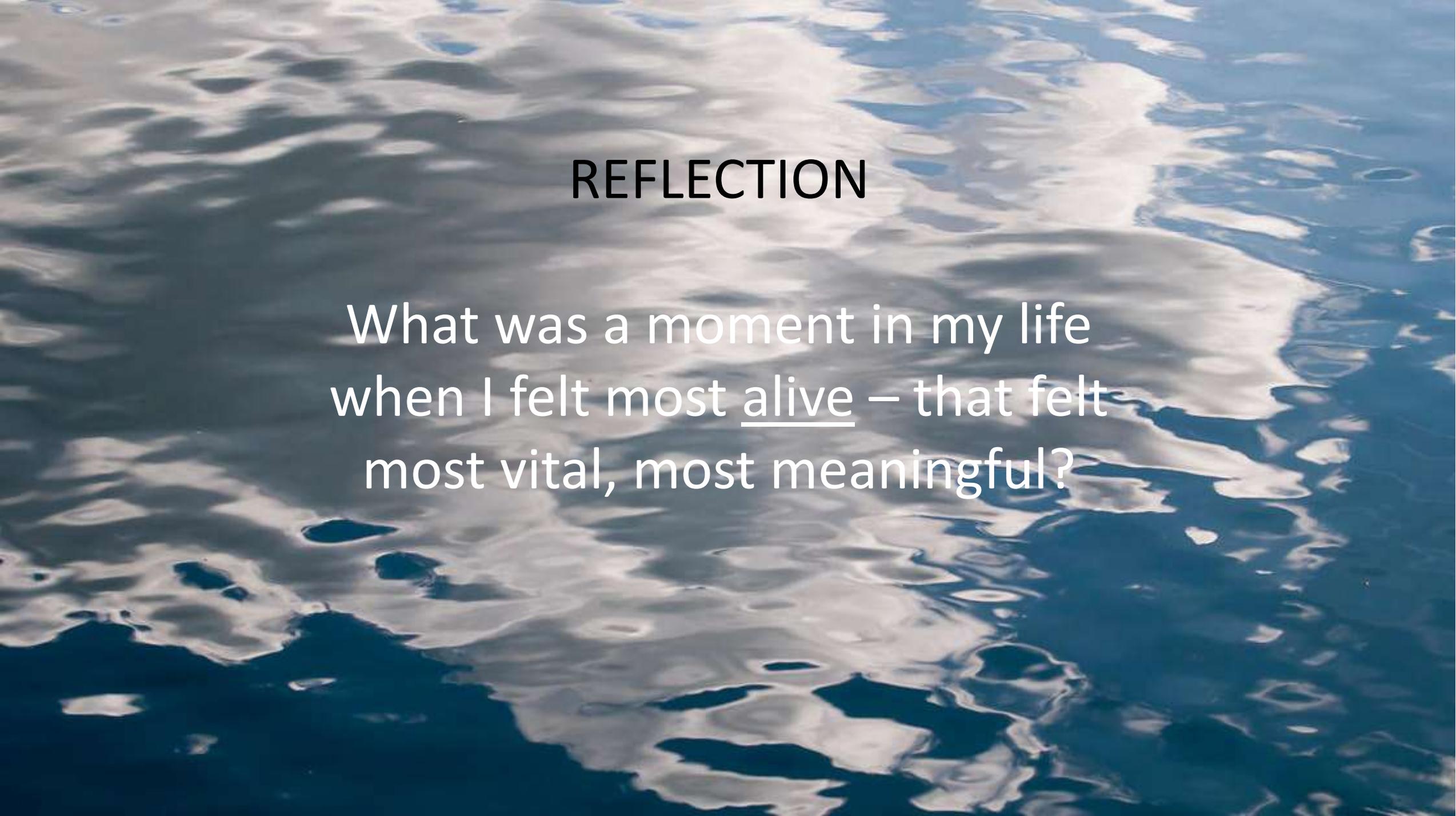


IWK Health Centre

Disclosures

- No financial conflicts of interest
- Grants from the following:



An aerial photograph of water with numerous small, concentric ripples. The water is a deep blue color, and the ripples create a complex, textured pattern of light and dark blue. The lighting is bright, creating a shimmering effect on the water's surface.

REFLECTION

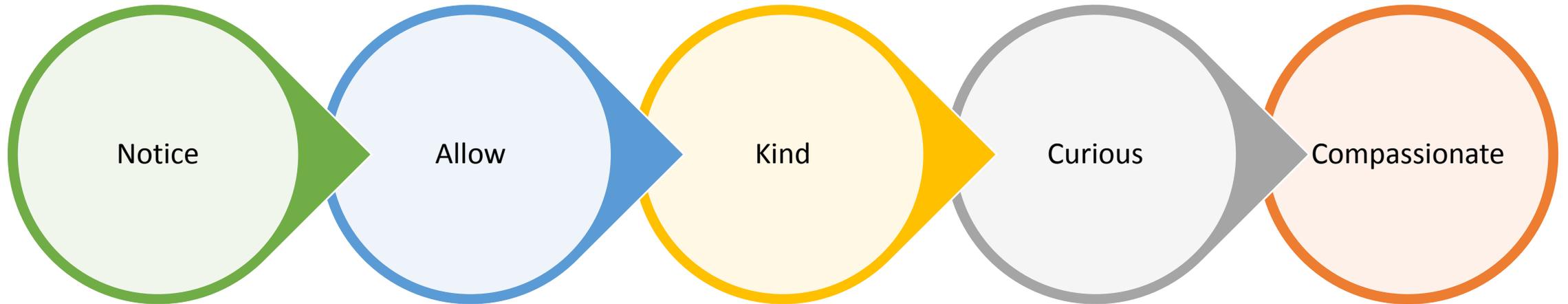
What was a moment in my life
when I felt most alive – that felt
most vital, most meaningful?

What is Mindfulness?



- Kind, curious, nonreactive attitude of
- “awareness that arises through paying **attention, on purpose**, in the **present moment, non-judgmentally**” (Jon Kabat-Zinn)
- “Knowing what’s on your mind” (JKZ)
- ... and **BODY**
- A natural capacity of the mind... that can be trained and strengthened

Stages of mindful awareness



Brief Practice



What is Mindfulness?



- Is mindfulness just a cute, overhyped idea? A fad?
- Or is there something to it?
- Or some combination?
- **How could watching my stupid breath have anything do with resiliency?**

When the question got real for me...







Brief Practice – Becoming aware of...



...any
thoughts in
this moment

...any
emotions

...any **physical**
sensations in the
body

$$N = 1$$

What is the evidence?

What is the evidence?

47%



Killingsworth & Gilbert, 2010

What is the evidence?

- **Burnout** in medical trainees associated with depression, anxiety, and **low trait mindfulness** (Chaukos et al, 2017)
- Study of Urban Firefighters (Smith et al, 2011): **Trait mindfulness positively associated with resilience** (including fewer alcohol problems, as well as fewer PTSD, depressive, & physical symptoms) after controlling for other variables
- Within the mindfulness construct, resiliency may be particularly related to **nonjudgmental and nonreactive** stance (McArthur et al, 2017)
- **Lower resiliency** associated with **lower levels of self-reported bodily awareness, but more neural processing (fMRI)** of aversive bodily sensations (Haase et al, 2016)

What is the evidence?

Well, it doesn't support doing this...



What is the evidence?

Fox et al, 2018 – interventions for physician resilience (*residents included*)

- N=22 studies (6 RCTs) – ***8 of these were mindfulness-based interventions*** (*the most common intervention studied*)
- >30% of studies showed medium to large effects on **resilience**
- <25% of studies showed small effects; unable to determine in almost 50% of studies
- >30% of studies showed medium to large effects on **stress**
- Almost 40% showed small effects; unable to determine in almost 30%

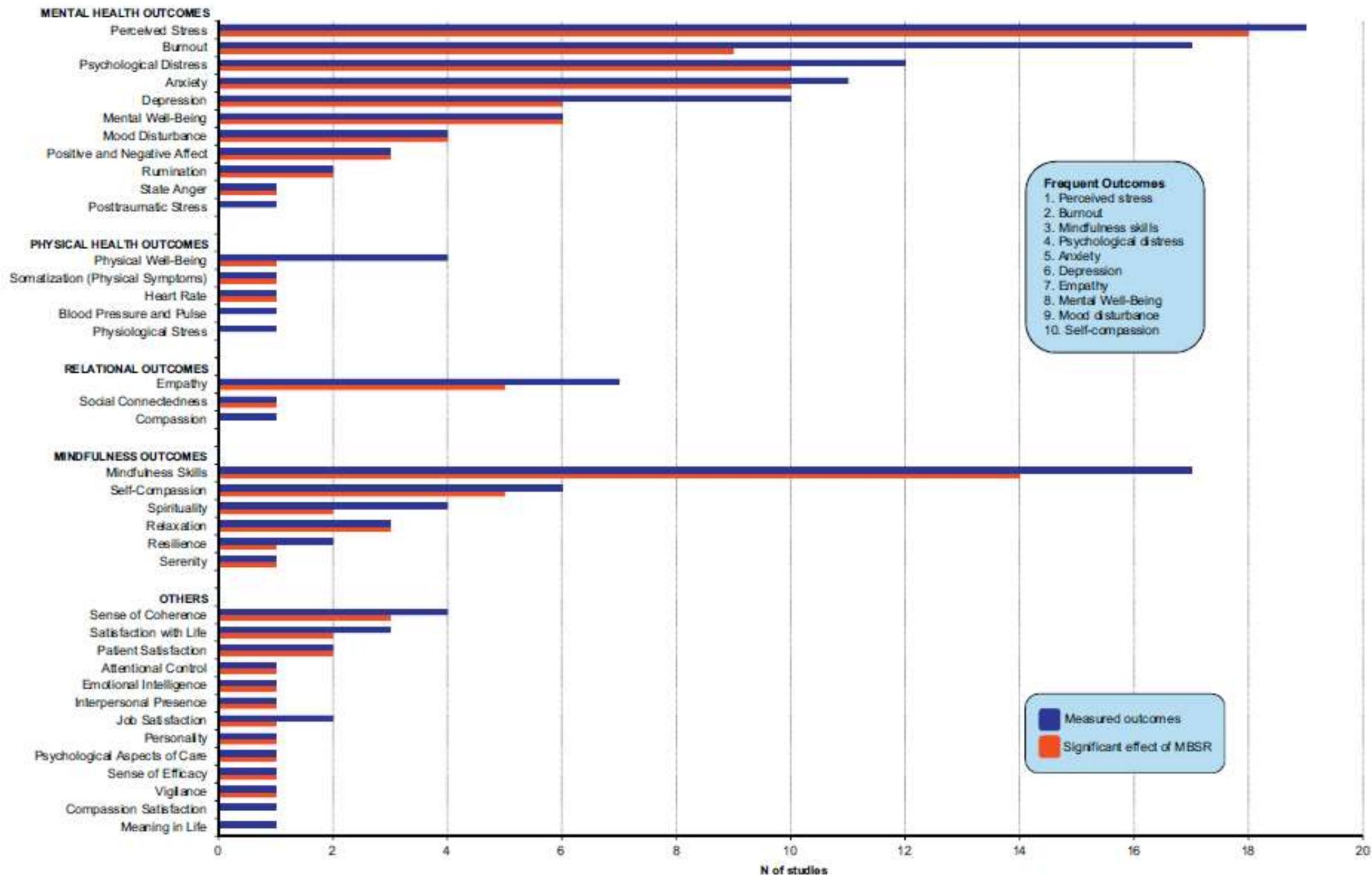


Fig. 1. Frequency of outcomes included in 39 studies reporting effects of MBSR in health care providers.

Illustrative Study – Resiliency in the Marines

- Johnson et al AJP 2014
- RCT; N=281 – 8-weeks of mindfulness enhanced training vs training as usual
- Greater reactivity and enhanced recovery (HR & BR), lower neuropeptide Y, attenuation of insula and ACC activation



Illustrative Study – Resiliency in the Marines

“These results suggest that MT may directly modulate interoceptive function toward more efficient processing of cues signaling perturbation of homeostasis and further facilitates improved response to stress”

Strengthening non-reactive bodily awareness may improve resilience



Brief Practice: Tactical Breathing



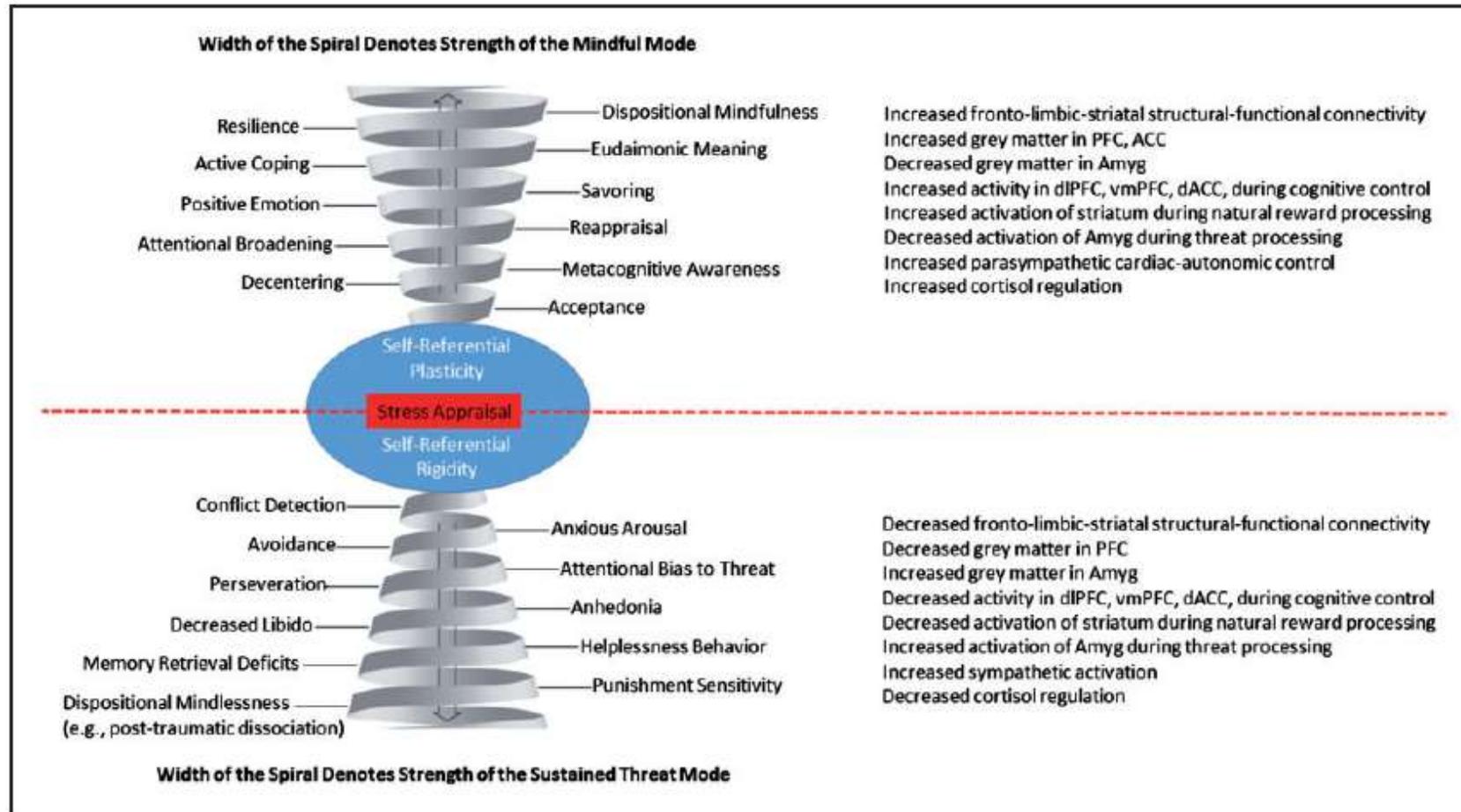
Brief Practice: Hand Breathing



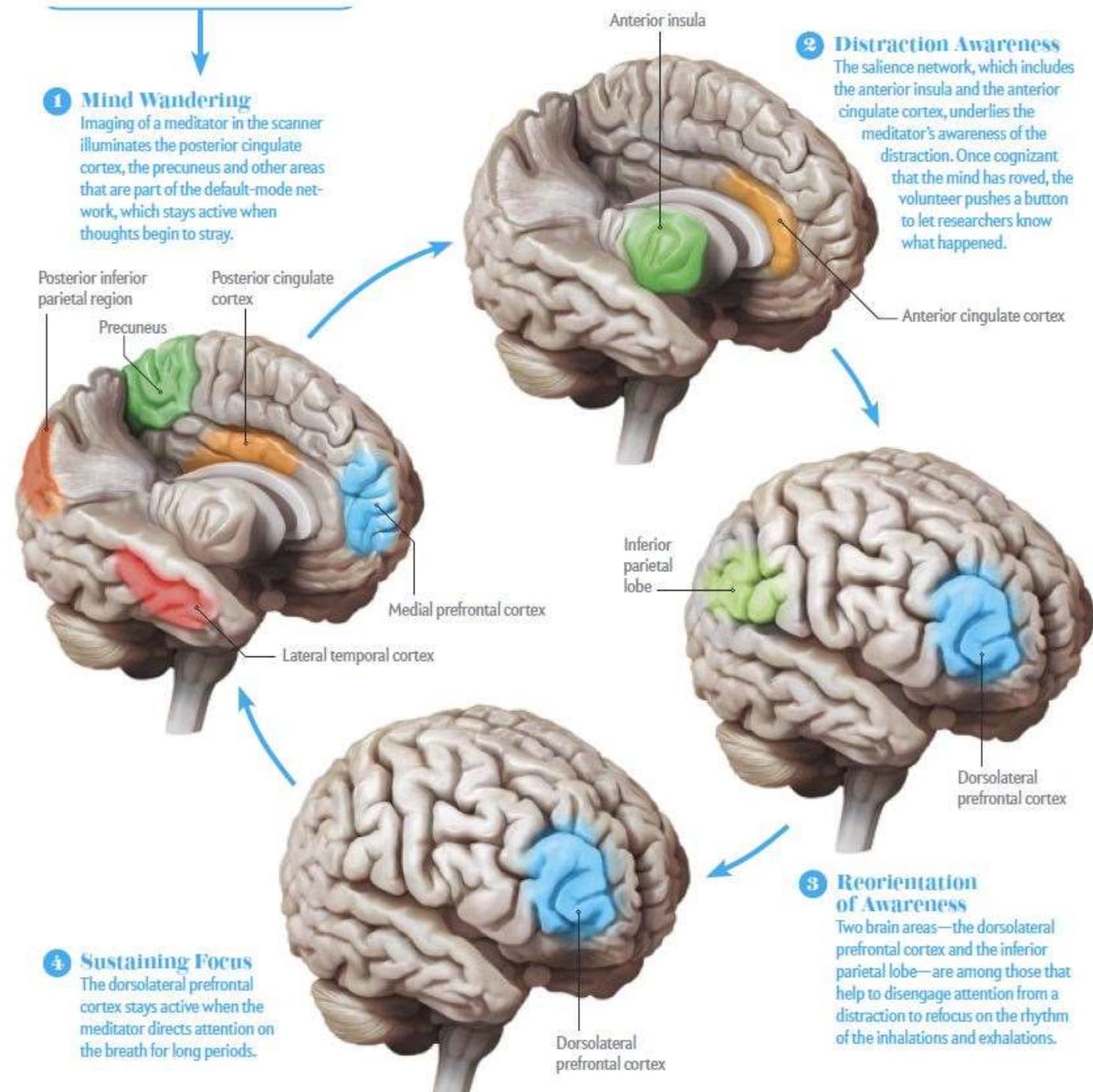
What is the evidence?

- *Mindfulness reduces physiological markers of stress*
- Meta analysis of 45 RCTs of meditation vs active control (Pascoe et al, 2017)
- Improvements in:
 - Cortisol
 - C-reactive protein
 - Triglycerides
 - TNF-alpha
 - Blood pressure
 - Heart rate

What is the evidence?



Brief Practice: Your Brain on Mindfulness



Brief Practice: RAIN

- **Recognize** what is happening
- **Allow** whatever is arising to simply be there without trying to push it away, or make something happen
- **Investigate** your inner experience
- **Nonidentification** – recognize that whatever is arising is just just the nature of the mind – nothing personal



Brief Practice: Savoring



How to create a mindfulness exercise: basics

1. Pick an **anchor/object of awareness** – something you can perceive in any of your five senses (touch/body sensations, smell, taste, see, hear – one or any combination – *have fun with it!*)
2. Invite **curiosity** (‘alien from another planet’)
3. Notice when the mind wanders or adds thoughts to the experience – can note: “thinking”
4. And then gently, kindly bring the mind back to the anchor

Take Home Points

1. You can train your brain to be flexible and resilient
2. Get friendly with the physical sensations in your body
3. Savor the good stuff (feel it ‘in your bones’)
4. Begin small but regular (daily for even 3 breaths) - & have fun!

Resources for next steps

- <https://www.chacmc.org/resources/>
- Center for Mindfulness in Medicine, Healthcare & Society; University of Massachusetts (www.umassmed.edu/cfm/)
- Open Mindfulness Groups in HRM led by Atlantic Contemplative Centre faculty: www.contemplativecentre.ca
- **Apps** – Insight Timer (free)
- **Books:**
 - The Mindful Way Workbook – Teasdale, Williams & Segal
 - The Mindful Path to Self-Compassion – Germer
 - The Mindfulness Solution – Siegel
 - Growing up Mindful – Willard [*for resilience in kids*]

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