



Mindfulness in a Nutshell

ABCs of Mindfulness Meditation

Develop **Awareness** (discernment of present moment experience)
Learn to **Be with** experience (do not avoid/push away/distract)
Make skilful **Choices** (non-reactivity, actions not mood-dependent)

Main Mindfulness Practices

body scan, mindfulness of breath (sitting), open awareness, walking & movement practices, compassion/kindness training

Non-Evaluative Attention

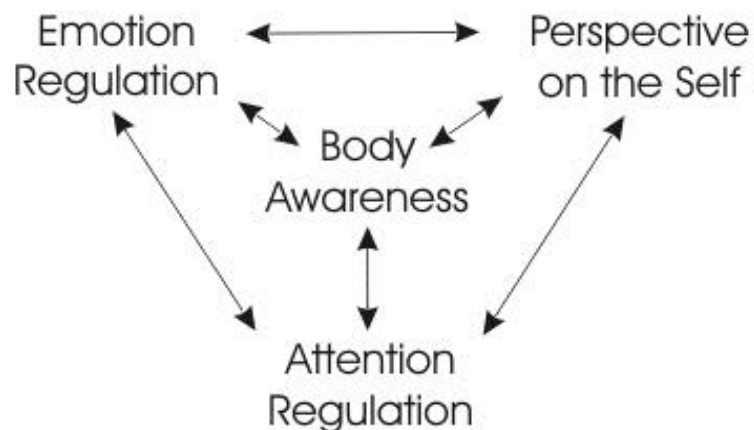
Re-training Attention Towards: Curiosity, Nonjudgmental Thinking, Equanimity, Non-Anticipation, Non-Reactivity, Non-Rumination

(FFMQ: Baer et al., 2006, 2008)

Awareness of Internal & External Stimuli

Notice and Discern moment-by-moment thoughts, feelings, bodily sensations, urges/actions; Dis-identify with thoughts, feelings, sensations (simply mental events that come and go)

Self-Regulation Theory of Mindfulness



How Does Mindfulness Help Improve Mental Wellbeing?

- Overactive/unproductive ruminative, predictive and worry networks can be disengaged (Berkovich-Ohana et al., 2012; Teasdale et al., 2000)
- Alters habitual responses in favour of intentional, skillful decision-making (Chiesa et al., 2011)
- Greater awareness of automatic pilot/inattentive mode (Williams, 2008)
- Facilitates noticing thoughts come and go and letting them go (decentering=thoughts are not facts) (Hargus et al., 2010; Teasdale, 1999)
- Promotes recognition of early warning signs/cues and unhelpful reactions (Kerr et al., 2013)
- Alleviates anxiety, stress, insomnia, chronic pain (Winbush et al., 2007; Jain et al., 2007; Hoffman et al., 2010; Kabat-Zinn et al., 1999)
- Improves quality of life and creativity (Chang, 2004; Manocha et al., 2012)

Multidisciplinary Research Findings

- May initially activate attention to body (Kerr et al., 2013)
- Lowers stress reaction to negative thoughts and reduces self-referential bias – seen in fMRI (Lazar et al., 2011; Taylor et al., 2013)
- Trains mind in attention: sustaining, selecting and shifting between modes (Malinowski, 2013)
- Reduces cortisol levels and boosts immune system (Tang et al., 2007/2009)
- Self report studies show decrease in anxiety, stress, negative rumination, judgmental thinking (Hoffman et al., 2010; Schreiner & Malcolm, 2008; Roemer et al., 2006)
- Increases cortical thickness and changes brain structure (Lazar et al., 2005; Fox et al., 2014)
- Disengages Default Mode – background neuronal activity responsible for rumination and mind wandering (Guo et al., 2014; Berkovich-Ohana et al., 2012)

Mindfulness & Neuroplasticity

Attentional Control:

Anterior Cingulate Cortex and Striatum

Emotion Regulation:

Multiple Prefrontal Regions, Limbic Regions, Striatum

Body/Self-Awareness:

Insula, Medial Prefrontal Cortex, Posterior Cingulate Cortex & Precuneus

The Mindful Brain

Reference: Tang et al. (2015); Hölzel et al. (2011)

