

BODY POSTURE AND MINDFULNESS: The Power of Presence

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In This Talk you Will:

- Examine the effect of stress on the body/mind
- Practice mindfulness
- Learn about body posing and presence
- Examine related research
- Practice body posing techniques

Mindfulness

- Cultivating a nonjudgmental awareness of the present
- Things and events are not inherently good or bad: it is thinking them that make them so.
- Our minds race to label our experiences, both past and future, thereby taking us out of the present, which is the only reality.



The Paradox of Living in the Moment

- Thinking about what you are doing makes you not present to reality
- Life unfolds in the present
 - Hyperactive “monkey minds”
 - Our thoughts are lenses by which we view the world
 - Therefore distortion is inherent

Benefits of Mindfulness

- Reduces stress
- Boosts immune functioning
- Reduces chronic pain
- Lowers blood pressure
- Helps patients cope with cancer and other illness
- Decreases depression and anxiety

Mindful People Are:

- happier, more empathetic, more exuberant, and more secure
- have a higher self esteem and are accepting of their own weakness
- able to hear negative feedback without feeling threatened
- able to have more satisfying relationships
- anchored in the present, which reduces the kinds of impulsivity and reactivity that underlie depression, binge eating and attention problems
- healthier physically

Our Ancestors

- Scanning the environment: Good berries vs. bad
- Tigers in the shrub
- Fight/Flight/Freeze
- Thoughts as modern day tigers

Thoughts are Our Tigers



- In our non-stop society most of us operate in nonstop activation of the Sympathetic Nervous System (SNS) and Hypothalamic-Pituitary-Adrenal Axis (HPPA)
- Continuous shunting of resources from developing a strong immune system, reproduction, good mood, etc, in favor of short term mini-crises

Our Brains on Tigers

- Taking in information
 - Anxiety producing thought (mind's eye as opposed to occipital cortex)
- Information sent to:
 - Hippocampus: evaluation compared to short list of jump-first-evaluate-later stimuli
 - Amygdala: Fight/Flight
 - Prefrontal Cortex: Pulls information from long term memory to determine threat level

The Tiger Leaps

- Alarm: Amygdala alerts thalamus, "Wake Up!!"
- Stimulating norepinephrine releases
- Sympathetic Nervous System signals to major organs and muscle groups (fight/flight in action)
- Hypothalamus releases stress hormones (epinephrine (adrenaline) and cortisol)

Epinephrine

- Increases heart rate
- Dilates pupils

Norepinephrine

- Shunts blood to large muscle groups
- Bronchioles of your lungs dilate

Cortisol

- Suppresses immune system to reduce wound inflammation
- Alerts brain stem to further stimulate amygdala, awakening SNS and Hypothalamic-Pituitary-Adrenal-Axis (HPAA)
- Suppresses hippocampal activity, leading to more stimulation of amygdala and increasing cortisol

Physical Consequences

- Gastrointestinal
- Immune
- Cardiovascular
- Endocrine
- Muscular

Mental Consequences

- Anxiety
 - SNS/HPAA activity: State Anxiety
 - Implicit memories formed (beneath conscious awareness) based on fear, intensifying Trait Anxiety
 - Hippocampus worn down, impairing ability to produce new explicit memories (what actually is happening)
- Depression
 - SNS/HPAA activation:
 - Lower production of dopamine (anhedonia)
 - Reduces serotonin (depressed mood)

Other Mental Health Consequences

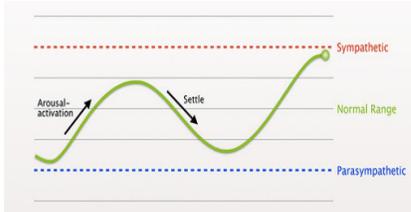
- In addition to:
 - Impulse control disorders
 - Inattention
 - Anger management
 - Somatic symptoms
 - Relational challenges
 - Trauma-related symptoms worsen

Parasympathetic Nervous System

- Conserves energy
- Produces relaxation
- Sense of contentment
- Normal resting state of body, brain, mind

Essential for life: If the PNS is severed, we would die. If SNS is severed, we would live (though would not be good in an emergency!)

SNS-PNS Activation



Balance

- PNS & SNS: We need both
 - Goal:
 - Mainly PNS arousal for baseline
 - Mild SNS for enthusiasm, vitality, passion
 - Occasional SNS spikes to deal with demanding situations
- Many of our students with trauma live primarily in the SNS

Brain Functioning of Mindful People

- In a 2011 study (Holzel, et al.) participants took part in an 8 week mindfulness meditation program
 - Average of 27 minutes a day
 - Compared to controls, participants had on MRI:
 - Increased grey matter in hippocampus
 - Decreased brain matter in amygdala
- In addition, increases in relaxation and stress reduction were reported

Brain Functioning, cont.

- Lazar, et al (2000) found when using functional brain mapping:
 - During meditation increases in activity in hippocampus, prefrontal and parietal cortices, temporal lobe, and other areas of the brain associated with the relaxation response.
 - The practice of meditation activates neural structures involved in the control of the SNS and PNS.

Brain Functioning, cont.

- Tibetan monks produce uncommonly powerful and pervasive gamma brain waves, integrating and unifying large territories of the mind (Lutz et al, 2004).
- Activity in the left prefrontal cortex (the seat of positive emotions such as happiness) radically exceeded activity in the right prefrontal (site of negative emotions and anxiety)
- Significant increases in grey matter in hippocampus, decreased amygdala matter

Research On Mindfulness and Children

- Multiple studies, multiple benefits
 - Executive functioning
 - Attention
 - Anxiety
 - Depression
 - Self-awareness/self monitoring
 - Decreased aggression
 - Increased empathy
 - Stress reduction
 - Trauma

Mindfulness Research, Trauma and Mood

- Mendelson et al. (2010) found 97 4th and 5th graders exposed to trauma in Baltimore public schools, after a 12 week mindfulness program, had significant improvement in rumination, intrusive thoughts, and emotional arousal compared to controls.
- Kuyken et al. (2013) found in a study of 522 youth aged 12-16 to have fewer self reported depressive symptoms after 9 mindfulness sessions.

Mindfulness: Research

- Fung et al. (2016) found after a 12 week mindfulness program with 19 Latino and Asian-American students reductions in internalizing and externalizing symptoms, including parent reported reductions of child emotional and behavioral Sx.
- Children with PTSD after the tsunami in Sri Lanka evidenced significant reduction of PTSD Sx after 6 mindfulness sessions, with lasting results at 1 and 6 months post-intervention as compared to controls (Neuner et al., 2008).

Breathing and Meditation Exercise

- Coming into breath
- Being aware of our bodies
- Opening up to our other senses
- Labeling thinking as "thinking"
- Opening up our "mental hands" to thought





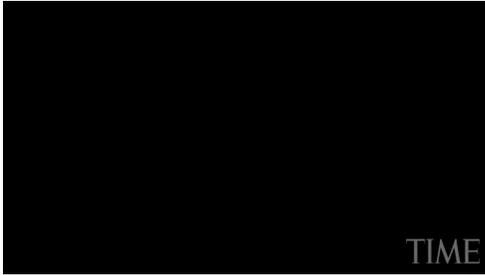
The Mind-Body Connection

- Countless studies
- Benefits of Yoga on mental health
 - Reduces stress
 - Increases positive mood
 - Decreases depression and anxiety
- Benefits of Exercise on mental health
 - Mood enhancement (short and long term)
 - Better sleep
 - Decrease fight or flight
- Often neglect this connection in our work with students

Presence

- Believing in and revealing our abilities
- Present in our minds, and bodies
 - Anchored in the here and now
- The more present we are, the more we are able to be confident, thereby decreasing the stress response

Amy Cuddy's Research



The Research

- Power posing
- Athletic tape experiment
- The slumped posture experiment
- iposture
- Imaginal posing

Power Posing Experiment





Athletic Tape Experiment

- Tape applied in straight or slumped postures
- 5 minute talk to impassive judges
- Upright postures deemed as more enthusiastic, strong, less nervous, less self-focused, used fewer words
- Slumped: rated opposite



Slumped Posture Experiment

- 30 depressed inpatient subjects
- Slumped or upright posture
- Shown word series on screen
 - Positive
 - Negative
- Recall test results

iposture Experiment

- Random Assignment
 - ipod touch
 - ipad
 - Laptop
 - Desktop
- Filler activity for 5 minutes
- Experimenter instructed after 5 minutes to come get him/her for debrief and to be paid
- Results!



Imagery Experiment

- 2 minutes of imagery
- Results!



A Counter-argument

- Dana Carney (former researcher with Cuddy)
 - Doesn't think that the power-posing effect was real, and that the original study had fatal methodological shortcomings.
 - Statistical analyses not up to today's standards of rigor

Cuddy's Response

- *"the power posing effect," is simple: adopting expansive postures causes people to feel more powerful.* Since my coauthors and I first published our evidence, *this effect has been replicated in at least nine published studies and in at least four unpublished studies from nine different labs.*

• - Amy Cuddy, 2016

- Adam Galinsky and colleagues wrote in their 2016 review:

- a person's sense of power...produces a range of cognitive, behavioral, and physiological consequences, including improved executive functioning, general optimism, creativity, authenticity, the ability to self-regulate, and performance in various domains, to name a handful.

- The current complete body of evidence on expansive postural feedback includes 46 studies from 96 researchers from university labs around the world, including:

- social psychology
- health psychology
- clinical psychology
- sports psychology.

Quick Try

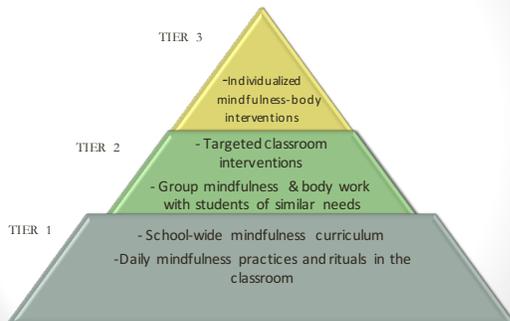


Our Most Vulnerable Students

- Disempowered
- Traumatized
- Low confidence
- Defeated
- Disenfranchised
- Seeking maladaptive means to achieve wellbeing and presence



Mindfulness-Body Model in the Schools



Tier 1 Universal Interventions

- ☞ Incorporating mindfulness-body work into the classroom or into current SEL program
- ☞ Stand-alone mindfulness programs examples on next slide
 - ☞ Consultant based
 - ☞ Teacher/School personnel based
 - ☞ Clinically based

Select Resources for School Programs

- Mindful schools (K-12) www.mindfulschools.org
- Mindful Life Project <http://mindfullifeproject.org>
- Inner Kids Program (K-8) www.susanlaishergreenland.com
- Inner Resilience Program (K-8). www.innerresiliencetidescenter.org
- Learning to Breathe: <http://learningtobreathe.org>
- MindUP: (preK-8) www.thehawthornfoundation.org
- Still Quiet Place (K-12) www.stillquietplace.com
- Stressed Teens (13-18yo) www.stressteens.com
- Wellness Works in Schools (3y-18y) www.wellnessworksinschools.com

Mindful Life Project Video



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Tier 2 Targeted Interventions

- Small group mindfulness-body interventions tailored to the student's needs
 - Internalizing problems
 - Externalizing behaviors
- Targeted classroom interventions
 - Skills building based on the needs of the student
 - Teacher support in classroom/prompting

Tier 3 Intensive/Individual Interventions

- Appropriate for students with high level needs
 - Aggressive behavior
 - School refusal
 - More intense internalizing problems
 - ADHD
 - PTSD
- Implemented by School Psych or other mental health provider/One on one support

How do we change, how can we help our students to change?

- Become aware of our “monkey minds” and the tenants behind the teaching of mindfulness.
- Stop the labeling of our experiences, relationships, and even our thoughts
- Body Posing Work
- Journaling (left-right hemisphere link)
 - Gratitude journaling

Change, cont.

- Quiet the mind
 - Through breath
 - Through our other senses
 - Mindful eating
 - Meditation
 - Curiosity
 - Yoga
 - Nature

We must practice what we are teaching: therefore, we must first become comfortable with mindfulness practices

Breaking Habits

- Breaking Habits:
 - Creatures of habit: comfort in sameness/autopilot and taking things for granted
 - Try something new (new seat/new path)
- Mindful walking
 - No goal
 - Sights, smells, sounds, your body in action

WRAP UP

- Discussion
- Questions



• **Practice: SelectResources**

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