Movement, Mindfulness and Mental Health

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Overview

- Breathing/Pranayama
- Yoga/Asana
- Mindfulness/Meditation
- Connection to Trauma, Impulsivity and Substance Use
- Resilience
- Putting it into practice
- Limitations/concerns/barriers
- Resources
Breath

- **Pranayama** is the fourth limb of Patanjali’s eight-limbs of yoga
- defined as the “control of life force,”
- aimed at increasing vital energy in the body and mind.
“Breath is the bridge which connects life to consciousness, which unites your body to your thoughts. Whenever your mind becomes scattered, use your breath as the means to take hold of your mind again”

-Thich Nhât Hanh
The Brain

- Pre-Frontal Cortex
- Amygdala
- Hippocampus
The Biology of Toxic Stress

Clip from the film Resilience

(Directed by James Redford; Written by Jen Bradwell)

- https://www.youtube.com/watch?v=Z4CD6jyWw2A
Regulation: Top Down or Bottom Up?

- Top-Down regulation involves strengthening the capacity of your medial prefrontal cortex to monitor your body’s sensations. Mindfulness meditation and yoga can help with this awareness.

- Bottom-up regulations involves “recalibrating” the autonomic nervous system. We can access the ANS through breath, movement and through touch.

“Breathing is one of the few body functions under both conscious and autonomic control.”

van der Kolk, 2014
Pranayama/breath and the Autonomic Nervous System (ANS)

- **Sympathetic nervous system (SNS)** is the fight-or-flight response. It uses chemicals like adrenaline to help the body and brain to take action. It helps us to mobilize energy to complete a task (survival or day to day tasks). Originates in the Spinal cord (thoracic and lumbar) Our bodies need this adrenaline and in small doses the SNS is essential. Problem when it goes into overdrive.

- **Parasympathetic nervous system (PNS)** often called “rest and digest” or “calm and connect” system. Uses acetylcholine to help regulate basic body functions (digestion and sleep) and allows us to recoup from the stressors of life. Originates in the sacral region of the spinal cord and the Medulla.

- **Heart Rate Variability (HRV)** – measures the balance between the SNS and PNS.
  - When we inhale we stimulate the SNS (results in an increase heart rate)
  - When we exhale we stimulate the PNS (results in decreasing how fast the heart beats)

- van der Kolk, 2014; Wilson, 2014
Schema Explaining How Parasympathetic and Sympathetic Nervous Systems Regulate Functioning Organs
How Trauma Can Affect Your Window of Tolerance

HYPERAROUSAL
This is when you feel extremely anxious, angry, or even out of control. Unfamiliar or threatening feelings can overwhelm you, and you might want to fight or run away.

DYSREGULATION
This is when you begin to feel agitated. You may feel anxious, revved up, or angry. You don't feel out of control, but you also don't feel comfortable.

WINDOW OF TOLERANCE
This is where things feel just right, where you are best able to cope with the punches life throws at you. You're calm but not tired. You're alert but not anxious.

DYSREGULATION
This is when you begin to feel like you're shutting down. You may feel a little spacy, lose track of time, or start to feel sluggish. You don't feel out of control, but you also don't feel comfortable.

HYPOAROUSAL
This is when you feel extremely zoned out and numb, both emotionally and physically. Time can go missing. It might feel like you're completely frozen. It's not something you choose – your body takes over.

Stress and Trauma Can Shrink Your Window of Tolerance.
This means that it may be harder to stay calm and focused. When you're outside your window of tolerance, you may be more easily thrown off balance.

Your Work with Your Practitioner Can Help to Enlarge Your Window of Tolerance.
They can help you stay calm, focused, and alert even when something happens that would usually throw you off balance.

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Pranayama exercises

- Ujai Breath
- Breathing to the count of 4/8 (longer exhale)
- Box Breathing
- Inhale 4, hold 7, exhale 8
- Focus on the exhale - activated the relaxing PNS
- 3 part breath
- Kids breathing exercises (candle breath, flower breath, bear breath)
Yoga

- **Asana** - traditionally defined as a “comfortable seat”; preparing for meditation
- 3rd limb of Yoga and it is the practice of physical postures
- According to Patanjali, “Asana aims to keep the body steady and easy for the meditation practice that prepare us to gain mastery of the thought patterns of the mind so that self-realization can be experienced.”
- Meant to keep physical body health, find flexibility and strength, stimulate the physiological systems of the body, help to develop mindfulness and focus for meditation
- Connection of the mind and body and breath
- Trauma-Informed Yoga ***
Yoga and Mental Health

Self-Regulation

- Individuals with PTSD: mindfulness can lead to increased emotion regulation
- Yoga provides chance to observe fear-related sensations and can counteract avoidance
- “Individuals with PTSD also show impaired awareness of bodily sensations and a lack of cognizance of the connection between environmental stimuli and internal reactions – two areas that are addressed in yoga.” – Price, Spinazzola, Musicaro, Turner, Suvak, Emerson and van der Kolk 2017
- “An essential aspect of recovering from trauma is learning ways to calm down, or self-regulate. For thousands of years, Yoga has been offered as a practice that helps one calm the mind and body. More recently, research has shown that Yoga practices, including meditation, relaxation, and physical postures can reduce autonomic sympathetic activation, muscle tension, and blood pressure, improve neuroendocrine and hormonal activity, decrease physical symptoms and emotions distress and increase quality of life.” – Emerson, 2009
Self-Awareness

• “Experientially, women with complex trauma histories often feel disconnected from their bodies and struggle to feel safe in their own skin. This type of trauma exposure inhibits the development of a basic sense of security and trust in oneself and others. It is a challenge to hold a coherent and positive sense of self that is not based in self-doubt or shame. Consequently, tasks of basic self care are often neglected.” – Rhodes, 2015

• “Pathways of Interoception” – Jackson, 2014

• “One of the clearest lessons from contemporary neuroscience is that our sense of ourselves is anchored in a vital connection with our bodies. We do not truly know ourselves unless we can feel and interpret our physical sensations; we need to register and act on these sensations to navigate safely through life. While numbing (or compensatory sensation seeking) may make life tolerable, the price you pay is that you lose awareness of what is going on inside your body and, with that, the sense of being fully, sensually alive.” – van der Kolk, 2014
Peaceful embodiment

- Rhodes, 2015

- “Participants experienced an improved connection with and sense of ownership and control over their bodies, emotions and thoughts. This was marked by a growing sense of self-efficacy, and feelings that they were not longer defined by their trauma history, living in the past or reacting based on the past.”

- “The growing sense of connection and control over their bodies, thoughts, emotions, and behaviors enabled movement toward an embodied sense of peace, which included feelings of “safety,” “calmness,” “groundedness,” “presence”, “inner strength,” and “self-confidence”. In contrast to experiencing that the “mind and body are separate things that have to fight with each other,” participants described feeling more “whole.” The sense of peace that women claimed through yoga was also marked by experiences of “self-acceptance” and “authenticity.” Becoming more connected with their minds and bodies in the present, believing that they had the power to be who they wanted to be, and in greater control of their experiences and actions, offered women the sense that they were becoming their true selves. They developed a greater sense of contentment, serenity, and a greater appreciation of everyday things.”
Yoga for Children/Adolescents

- Help cope with stress and contribute positively to balance in life, well-being, and mental health.
- Physical and mental well-being
- Improve resilience, mood and self-regulation
- “Children function as an agency for their own well-being and have the evolving capacity to be partners of wellness with their families, friends, and society” - Hagan and Nayar, 2014
- Grows innate abilities and promotes mastery (strengthening body, increasing energy, building coping skills, enhancing concentration and memory)
- Protect and preserve (maintaining self esteem while faced with challenges)
- Positive self concept
- Studies that focus on the efficacy of yoga programs in schools, yoga programs in areas of conflict, children with complex trauma, children with ACE’s
- Therapeutic yoga (ADHD, anxiety, depression, eating disorders) Kaley-Isley, 2010
Yoga Poses

Forward fold (Uttanasana) - different variations

Child’s pose (Balasana)

Cat/Cow (Marjaryasana/Bitilasana)
Downward facing dog (Adho Mukha Svanasana)

Mountain Pose (Tadasana)
Upward Salute (Urdhva Hastasana)

Plank pose (Phalakasana)
Bridge pose (Setu Bandha Sarvanghasana)

Legs up the Wall (Viparita Karani)

Corpse pose (Savasana)
om...
Did I ever send that email?
My neck hurts
What's for dinner?
ZZZ...
I hope the dog didn't pee on the rug.
Relax...
I can't get that Taylor Swift song out of my head...
What time does the game start?
Did I just snore?
Mindfulness

- Awareness that emerges through paying attention on purpose
- Being in the present moment
- Nonjudgmental
- Self awareness
- Self regulation
- Take charge of emotions and behaviors
- Helps children/adolescents become more connected and empathic
- Meditation practices
- Interoception *
- “Teaching stressed children how to regulate emotions may provide them with new skills that promote healthy stress-response systems in the brain and may also enable them to avoid the downward trajectory faced by many at-risk youth as they progress through adolescence into adulthood.”

“Without mindfulness, there is no therapy...
All growth occurs because you are in a state of mindfulness. Without mindfulness, there is no growth.”

-Bessel van Der Kolk
Mindfulness exercises

- Mindful eating
- Mindful breathing
- Body scan
- Mindful movement (walking)
- Mindful listening
- Mindful seeing
- 3 P’s: Pause, Presence, Proceed
1. Pause

2. Presence

3. Proceed
Mindfulness, Impulsivity and Substance Use

- Conscious Breathing
- Heart Rate Variability
- Vagal Tone
- Interoception
- Window of Tolerance
- Trauma-Informed Care
- Eustress vs. Distress
- NEAR- Neuroscience, Epigenetics, ACES, Resilience
- Promotion of Wellbeing/Resilience (personal, interpersonal, community, across the lifespan)
Resilience
Putting it into practice

- For clients
- For self care
- For the workplace
Limitations/concerns/challenges

- Logistics
- Experience/training
- Changing habits/influencing perception
- Specific poses for certain clients
- Commitment/consistency
Resources

- Mindresilience.org
- https://www.acesconnection.com/
- https://www.nearathome.org/
- Holistic Life Foundation http://hlfinc.org/
- Free Baltimore Yoga Project
- Body Wise Foundation https://www.bodywisefoundation.org/
- Radiant Child http://childrensyoga.com/
- Street Yoga http://streetyoga.org/
- Yoga pretzel cards
- Breathe Like a Bear by Kira Willey
- Mindfulness and Yoga Skills for Children and Adolescents by Barbara Neiman
- The Body Keeps the Score by Bessel Van Der Kolk
- Trauma Center Trauma Sensitive Yoga at the Justice Resource Center http://www.traumacenter.org/clients/yoga_svcs.php
References


https://www.dartmouth.edu/~rswenson/NeuroSci/chapter_9.html


Thank You!

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