INTERNATIONAL TRAINING May 25-26 and June 1-2, 2021 University of Economics and Innovation in Lublin



"A MODEL OF SUPPORT FOR HIGHLY SENSITIVE CHILDREN IN PRESCHOOL AND EARLY SCHOOL AGE"







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Preventive strategies in working with highly sensitive children and adults: evidencebased mindfulness, mindful movement and embodiment practice

Maria Fabiani







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Sensory processing sensitivity versus sensory processing disorder



Can seek professional help (for knowledge and better understanding)

Can modify their environment (as to what serves them best)

External triggers are the main culprits of reactions

Sensory meltdowns are typically caused by overstimulation or overload from the external sensory input.

Open for external changes to be able to live better



Need professional help to better integrate stimuli into their experience
 Have no control as to what their brain could get overwhelmed to

May have other underlying conditions (i.e. Autism/ Asperger's Syndrome,

- OCD/ ODD, Anxiety, Depression)
- Sensory meltdowns can root from hypersensitivity (over-responsiveness) OR hyposensitivity (under-responsive)
- Cannot stand changes or transitions
- Poor sense of space, direction, location, and motor skills (proprioception and vestibular system)

MINDFULNESS

"The awareness that emerges through paying attention on purpose, in the present Moment, and non-judgmentally to the unfolding of experience."

- Jon

Kabat-Zinn

Emotion regulation involves a coherent relationship with the self, specifically effective communication between body, mind, and feelings.

EMOTION REGULATION

Effective emotion regulation involves the ability to accurately detect and evaluate cues related to physiological reactions to stressful events, accompanied by appropriate regulation strategies that temper and influence the emotional response. Damasio (2003) makes a clear distinction between emotions and feelings.

- $\,\circ\,$ Emotions are of the body, while feelings are of the mind.
- A feeling is a mental representation of the state of the body.
- $\,\circ\,$ Emotions are automatic. Feelings are conditioned.
- Emotions are reactions to external stimuli or to feelings themselves.

Antonio Damasio (2003). Looking for Spinoza: Joy, sorrow and the feeling brain

EMOTIONS VERSUS FEELINGS

Self-regulation is a concept referring to an individual's ability to manage and helpfully express their own social-emotional behaviours, emotions, wants, and needs (Heatherton & Tice, 1994).

Self-regulation can be triggered by the need to self-manage to achieve bodily homeostasis. Dysregulation, following selfmanagement needs are implicated in increased physical and mental health difficulties and lower life outcomes for children impacting social and academic outcomes (Nigg, 2017).

Self-regulation can be thought of holistically or divided into three separate facets; cognitive, emotional, and behavioural (Murray, Rosanbalm, Christopoulos, & Hamoudi, 2015).

SELF REGULATION

Cognitive self-regulation involves focused attention, decision making and executive functioning, emotional self-regulation refers to the ability to recognise and respond helpfully to one's emotions and behavioural self-regulation can be demonstrated through behaviours such as following rules, impulse control, working towards goals, and conflict resolution (Murray et al., 2015).

SELF REGULATION

Self-regulation has been found to be positively correlated with psychological wellbeing including aspects of personal growth and relatedness, life purpose, and self-acceptance (Singh & Sharma, 2018). In line with the research finding that self-fulfilling prophecies have a significant impact on educational and wellbeing outcomes for children and students, using a proactive model should impact positively on both schools and preschools as well as children and students (Zyngier,

A Quick Neuroscience Lesson (Cozzolino, 2010; Siegel, 2010)



Prefrontal Cortex conscious thought mPFC Functions: -Bodily regulation -Attuned communication -Emotional balance -Fear extinction -Flexibility -Insight -Empathy

-Morality -Intuition



Corpus Collosum Connects left & right hemisphere

Limbic System Amygdala: Emotion-driven Fight/Flight/Freeze Hippocampus: Explicit memory Thalamus: Message control

Sub-cortical, Below Conscious Concern=Safety

Brain Stem - Instinct Regulates vital functions & flow of body messages









Our embodied brain

- Central Nervous System: brain, brain stem, and spinal cord
- Peripheral Nervous System: nerves that branch off the spinal cord to all parts of the body
- Somatic voluntary body movement
- $\circ\,$ Autonomic involuntary body function
- Sympathetic approach fast
- \circ Parasympathetic rest slower
- $\circ\,$ Key role in body response to stress
- \circ Vagus nerve
- Neuroception: are situations or peopledangerous (im/mobilize) or safe (engage)
- The brain sends messages through the spinal cord and nervous system to control muscle movement of and organ





Healthy Development and Secure Attachment Supports:



Hanson, 2015; Siegel, 2013; Siegel & Bryson, 2011

Tying it all together (Siegel, 2010)

Prefrontal Cortex conscious thought



Hippocampus: Explicit memory

Amygdala: **Emotion-based Motivation**

Safety = Social Engagement Network

Erasmus+

Neuroplasticity: Neural pathways are developed and strengthend based on learning and practice

Danger = Mobilization or Immobilization Network









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Ways to calm the amygdala





Play



Mindfulness Developing Focused Awareness Supporting Safety and Stability



The body on yoga and meditation It's not just about touching your toes!



Pain Response

Meditation has been proven to strengthen your pain response. The practice of mindfulness improves the body's physiological response to pain as well as one's perception of pain.

> • Temporoparietal Junction (TPJ) This part of the brain governs perspective and empathy. A meditation modality called Cognitively-based Compassion Training has been shown to improve the ability of subjects to read emotions on strangers' faces.

....o Hippocampus

This part of the brain shapes new memories from experiences. Stress hormones have a shrinking effect on the hippocampus, interfering with memory and navigation. Meditation can help maintain the size of this structure, which is pertinent to our mental resilience.

Blood Pressure

Meditation helps to dilate the blood vessels, improving blood flow and thereby lowering the pressure needed to pump blood throughout the body.

Prefrontal Cortex

This portion of the brain naturally thins with age. It has been proven that meditation can reverse this process, which would otherwise contribute to cognitive decline.

Posterior Cingulate Cortex (PCC) o

This region of the brain is associated with creativity and self-reflection. Research shows that meditation has beneficial effects on the density and structure of this region.

Amygdala o.....

This region of the brain is closely correlated to one's experience with negative emotions like stress. Stress can increase the density of this region, altering the structure of the brain. Meditating can help reduce the density and maintain the brain's healthy structure.

Immune System

Meditation is linked to reduced inflammation and strengthened immunity.

against heart disease by reducing inflammatory markers associated with

Heart





its development.

Meditation may protect









BENEFITS OGA

1. Yoga Helps Kids Breathe Better

2. Yoga Will Make Kids Be More Aware Of Their Bodies

3. Yoga Will Help Your Kids Learn To Balance Better

4. Kids Will Learn How To Keep Their Mind Calm

- 5. Yoga Will Let Kids Use Their Energy Better
- 6. Yoga is non-competitive
- 7. Yoga Teaches Self-acceptance
- 8. Yoga Encourages Healthy Habits
- 9. Yoga Builds Concentration

Proven benefit of yoga

Increases Quality of Life, Strength, Flexibility and Balance

Reduces Stress & Anxiety by Decreasing Grey Matter in Amygdala

Improves Mental Resilience by Maintaining Size of the Hippocampus

Decreases Physical Pain & Helps Physiological Response to Pain

Functions as Complimentary Therapy for Anxiety, Depression, PTSD, and ADHD

Reduces Inflammatory Markers and Strengthens Immunity





Self Soothe With The Seven Senses

THE SEVEN SENSORY SYSTEMS



5-4-3-2-1 Technique

Using the 5-4-3-2-1 technique, you will purposefully take in the details of your surroundings using each of your senses. Strive to notice small details that your mind would usually tune out, such as distant sounds, or the texture of an ordinary object.



What are 5 things you can see? Look for small details such as a pattern on the ceiling, the way light reflects off a surface, or an object you never noticed.



What are 4 things you can feel? Notice the sensation of clothing on your body, the sun on your skin, or the feeling of the chair you are sitting in. Pick up an object and examine its weight, texture, and other physical qualities.



What are 3 things you can hear? Pay special attention to the sounds your mind has tuned out, such as a ticking clock, distant traffic, or trees blowing in the wind.



What are 2 things you can smell? Try to notice smells in the air around you, like an air freshener or freshly mowed grass. You may also look around for something that has a scent, such as a flower or an unlit candle.



What is 1 thing you can taste? Carry gum, candy, or small snacks for this step. Pop one in your mouth and focus your attention closely on the flavors.















STORIES



Focus attention and engage participant in an empathic response, creating a significant physiological effect on the body and on behavioral choices. (Zak, 2013)

Activate episodic memory and light up the whole brain for learning (Medina, 2010)

MENTAL HEALTH AND RESILIENCE



Reduces anxiety (Mendelson, 2010), problematic stress responses (Noggle , 2012), and depression (SIBINGA, 2015) Improves resilience (White, 2012) and coping frequency (Sarkissian, 2018)





Improves social-emotional outcomes (Maynard, 2017) such as self-regulation (Fishbeir , 2016) and social skills (Razza, 2015) Reduces problem behaviors such as suspensions and disciplinary referrals (Bakosh, 2015) , bullying (Centeio, 2017) and hostility (Frank, 2014)

EMOBODIED SELF REGULATION SKILLS

using Bilateral and Cross-lateral Intentional Movement:

Decrease off-task behavior in preschool age children (Dustow, 2009) Improve creative problem solving, language skills, and memory (Dewar, 2008)

MINDFULNESS

Increases attention span and ability to ignore distractions and concentrate effectively Enhances behavioral regulation, metacognition, and overall global executive function (Flook, Smalley, Kitil, Galla, Kaiser-Greenland, Locke, Ishijima, Kasari, 2010, Napoli, Krech, & Holley, 2005)

PHYSICAL HEALTH

Over-rides the body's physiological response to stress Stimulates the release of BDNF, which grows the brain (Ratey, 2008) Improves the cognitive control of attention Enhances academic performance (Hillman, et al, 2009) Increases physical well-being (Chen, 2014) and physical fitness (Purohit, 2016) as well as flexibility, balance and strength (Folleto, 2016)

SLOW INTENTIONAL MOVEMENT

Unifies and integrates mind/body experience (Journal of Cognitive and Behavioral Practice 2009) Organizes whole-brain function for optimal learning (Dennison and Hannaford, 1999) Improves executive functions (Science 2011) Concentrates BDNF in the hippocampus, enhances long term memory retention (Ratey, 2008)

SCHOOL/CLASS CLIMATE ACADEMIC PERFORMANCE



Cultivates positive climates by fostering benefical mental, social-emotional, academic and physical outcomes for educators and students (Roeser, 2012; Wisner, 2014; Kielty, 2017) Enhances focus and attention (Bakosh, 2015; Tarrasch, 2018) and supports positive academic outcomes such as improving grades (Mak, 2018; Bennett, 2016) and test scores (Bellingr, 2015), and preventing declines in Grade Point Average (GPA) (Butzer, 2015)

TEACHER WELL BEING

Educators who participate in yoga-andmindlfulness- based training experience improvements in mood, classroom management, physical symptoms, blood pressure and cortisol awakening response (Harris, 2016) as well as teaching efficacy, wellbeing, stress reduction and burnout prevention (Jennings, 2013)

Mindfulness & Neurobiology

Learning mindful awareness skills is a key
vehicle for strengthen and restructure the brain:
to supports the healthy cognitive, emotional, and interpersonal functioning
When successfully cultivated, they lead to:

- \circ flexible thinking
- o active engagement
- sense of competence
- o a healthy lifespan trajectory

(Diamond, 2010; Linnenbrink & Pintrich, 2003; Siegel, 2013)



Mindfulness-based Practices

create a shift in awareness from experiencing to the objective observation of experience.

- facilitating the capacity for objectivity, empathy, and tolerance without reactivity to challenging physical and emotional states
- fostering self-regulation, self-management, values clarification, and flexibility of cognitions, emotions, body sensations, and behaviors.

(Black, 2015; Davidson et al., 2012; Felver et al. 2013; Grecucci et al., 2015; Wisner, 2014)



We become more compassionate by repeatedly installing experiences of compassion.

We become more grateful by repeatedly installing experiences of gratitude.

We become more mindful by repeatedly installing experiences of mindfulness.













Experiencing doesn't equal learning. Activation without installation may be pleasant, but no trait resources are acquired.

> What fraction of our beneficial mental states lead to lasting changes in neural structure or function?

Installation matters

We tend to focus on activation more than installation. This reduces the gains from psychotherapy, coaching, mindfulness programs, and self-help activities.



How can we increase the conversion rate from positive states to beneficial traits?



Activation • Have a beneficial experience



Installation 2.Enrich the experience 3.Absorb the experience 4.Link positive and negative material (Optional)

Meeting our Three fundamental needs







Satisfaction Approaching rewards (goal pursuit)

Connection Attaching to others (social engagement)



PRINCIPAL OF UNIVERSAL DESIGN

1 Equitable use – useful and accessible to all
2 Flexibility in use – accommodates a wide range of abilities and preferences
3 Simple and intuitive – easy to implement for all ages/stages
4 Perceptible information – user information is clear and accessible for all
5 Tolerance for error – minimizes unintended adverse consequences
6 Low physical effort – not tiring to implement
7 Size and space for approach and use – able to be implemented in spaces small and large and for children/adults of all sizes and physical abilities







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PRINCIPAL BEHIND THE PILOT



1 Equitable access to education
2 Flexibility in curriculum design and implementation
3 All sites/staff know how to respond inclusively to all students
4 Teaching creates accessible learning for ALL students
5 Attitude to include minimizes risks of unlawful barriers
6 Effective and efficient way to meet children with special needs for schools and staff
7 Appropriate supports provided as needed to ALL, in class or outside and/or in a dedicated space















4 MIND BODY PRINCIPLE FOR LEARNING

Start with your comfort zone and make it even more comfortable
Not to easy not too hard: pick an interesting challenge within your reach
Move away from your desidered place and come back to it from different angles
Play with it, connect it, make your own







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