Fostering Self-Regulation Through Mindfulness Based Practices

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“Mindfulness means paying attention in a particular way; on purpose, in the present moment, and nonjudgementally.” Jon Kabat-Zinn (1994)
To succeed in life - our children need better self-regulation—a way to understand and manage their stress and energy. (Shanker, 2016)

Mindfulness practices foster self-regulation

1. Sharpen attention and focus
2. Build emotion regulation skills
3. Gain self-knowledge

3 Common Goals
The Need for Mindfulness

Mindful Life and your Child:

Life for most kids today presents:

- A schedule that is too busy
- Pressure to perform
- Too much media
- Lack of face to face relationships
- Increasing anxiety & depression
- A brain that is in a constant state of Fight or Flight

The Result:

- Decreased academic performance
- Problems with attention
- Impulsive behaviors
- Increased depression and anxiety
- Sleep difficulties
- Social struggles

Mindfulness helps children develop:

- Increased stimulation in the prefrontal cortex of the brain
- Better focus and concentration
- Compassion
- Increased sense of calm
- An understanding of how their brain works

The Result:

- Increased self-awareness
- Skillful response to difficult emotions
- Increased empathy and understanding of others
- Natural conflict resolution skills
- Happier, healthier kids who are ready to learn

The Need for Mindfulness
Evidence that mindful meditation in schools works

- Meditation in San Francisco Middle Schools

Since starting the Quiet Time intervention, this school has achieved the following:

**BEHAVIORS**
- 50% reduction in suspensions
- 65% reduction in truancy

**ACADEMICS**
- .5% increase in overall grade point average
https://www.youtube.com/watch?time_continue=65&v=wu6BKqWlya8  Mindful Moment Baltimore
- Mind Body Awareness Curriculum
- Aliza and the Mind Jar
- Meditation in San Francisco Middle Schools
- Inner Strength Program – Philadelphia Schools
  https://www.youtube.com/watch?v=pTsg7YonMxY
- Mindful Moment Baltimore
  https://www.youtube.com/watch?time_continue=65&v=wu
Self-regulation is

- recognizing when we are over-stressed
- identifying our sources of stress
- reducing the intensity of sources of stress
- finding places of calm
- learning ways to rest and recover
• Why do we behave the way we do?

• Why it is so hard at times to behave the way we want to?

Meet the Limbic System functions necessary for self preservation/species preservation feeling and reacting brain

Neural networks and behavior
Limbic System

- plays an important role in behavior
- source of our strong emotions and urges;
- plays critical role in memory formation,
- plays critical role in emotional associations with memories
- contributes to how we respond to threats and worries
- primarily operates outside of our conscious control
Limbic System

- **Hypothalamus** (activate the sympathetic nervous system)
- **Amygdala** (coordinates behavioral, autonomic and endocrine responses to environmental and emotional stimuli)
- **Hippocampus** (cortisol production, spatial relations in environment, declarative memory (memory of facts etc.)
- **Limbic cortex** (judgment, mood, motivation habituation, reinforcement)
Children in a heightened state of emotional arousal have sensitive limbic systems:

- their brains are primed to respond to threats even when none exist.

Children who are chronically over-aroused will identify neutral faces as hostile (Brotman et al, 2010).
• Limbic system – feeling and reacting brain
  ◦ Amygdala – regulates emotional state; “security guard”
  ◦ Hippocampus – makes and stores memories
• Prefrontal cortex (PFC) – thinking brain

Mindfulness Changes the Brain
Natural response to stress there is suppression of activity in the Prefrontal Cortex (PFC) and increased activation between the Amygdala and Thalamus.

**strengthens the connections between the pre-frontal cortex and thalamus** which can mediate the reactivity of the amygdala.
Meditation is a "self-regulatory practice" that strengthens the connections between the pre-frontal cortex and thalamus which can mediate the reactivity of the amygdala.
• Amygdala classifies incoming senses
  ◦ Low road: reaction before mind thinks
  ◦ High road: response happens after mind thinks

Mindful Awareness
Research has shown that naming an emotion moved brain activity from the amygdala (Reaction Center) to the prefrontal cortex (thinking).

Process of moving from thought (emotion) to thinking sensation.

Source: Schwartz & Shapiro
Mindfulness-based practice (MBP), including meditation and yoga, share goal of promoting **attention** and **inhibition** and decreasing **stress reactivity**.

Mindfulness-based curricula have been successful in enhancing:

- Self-regulation (Bergen-Cico, Razza, Timmins, 2015; Razza, Bergen-Cico, Raymond, 2015)
- Executive Function among older children (Flook et al., 2010; Mendelson et al., 2010).
- Self-acceptance and both emotional and behavioral regulation among pre- and early-adolescents (Broderick & Metz, 2009; Schonert-Reichl & Lawlor, 2010).
Our research has found significant improvements with Mindful Yoga integrated into school-day

↑ Inhibitory control preschoolers
↓ Lack of attention preschoolers
↑ Self-regulation among 6th graders
↑ Mindfulness among 6th graders

Benefits of Integrating Mindfulness Practice into Curriculum and School Routine
Our research has found significant improvements with mindfulness integrated into school-day:

- Self-regulation among 6th graders
- Mindfulness among 6th graders

Bergen-Cico, Razza, & Timmins, 2015

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**Fig. 1** Student’s total regulation scores by group. Time 1 = baseline, Time 2 = mid-year, and Time 3 = program-end. Error bars ±1 standard error. Significant differences between groups at each time point are designated with asterisks. *p < .05; **p < .01

**Fig. 2** Student’s long-term regulation scores by group. Time 1 = baseline, Time 2 = mid-year, and Time 3 = program-end. Error bars ±1 standard error. Significant differences between groups at each time point are designated with asterisks. *p < .05; **p < .01
Program Impact: PreK

Inhibitory Control

Lack of Attentional Impulsivity

Razza, Bergen-Cico, & Raymond, 2015
Video: ELA Class
Facilitator needs to have a personal mindfulness or mindful yoga practice

Consistency & repetition of practice are key

How can you enhance sustainability?
- Infuse in other courses, across years
- Collaborate with after-school programs
- Involve families
Select References


