Nurturing Mindfulness in Caregivers and Children: A Promising Approach for Stress Reduction

ACF – March 2012

Mark Greenberg
mxg47@psu.edu
Good Afternoon!
What is Mindfulness?

• Mindfulness is: *paying attention, in a particular way, on purpose, in the present moment, non-judgmentally.* --Kabat-Zinn, 1990

• An awareness of one’s conduct and the quality of one’s relationships, inwardly and outwardly, in terms of their potential to cause harm, are intrinsic elements of the cultivation of mindfulness.

• Mindfulness in everyday life is the ultimate challenge and practice.

*Kabat-Zinn 2011*
Mindfulness Qualities to Nurture in Children and Adults!

- Calmness
- Kindness/Compassion (Concept of Interdependence of all things)
- Clarity/Insight (Awareness/Reflectivity – ability to Decenter)
Research on Effects of Mindfulness

– Symptoms (pain, reported stress)
  • Depression (Teasdale)
  • Anxiety (Miller)
  • Chronic pain

– Behavior
  • Substance Use
  • Suicide (Williams)
  • Aggression
Research on Effects of Mindfulness

– Brain Activity and Executive Function
  • fMRI and EEG findings (Davidson, Posner, Tang, Jha. Lazar, etc)
  • Working memory
  • Inhibitory control
  • Attentional Control (Lutz, Jha)

– Psychophysiology
  • Cortisol (Carlson, 2007; )
  • Telomere activity (Epel, ucdavis)
  • Immune function (Davidson)
Peer-reviewed Research on Contemplative Practices 2000-2011

- MEDITATION
- MINDFULNESS
- YOGA

Graph showing the increase in research papers published from 2000 to 2011 for different contemplative practices.
Mindfulness is Everywhere
IN YOUR MIND’S BROWSER, CLEAR YOUR CACHE...

NOW DELETE YOUR HISTORY...

NOW NAVIGATE TO A BLANK WEB PAGE...

Geek meditation session.
PEACE
Promoting Empathy Awareness and Compassion in Education

Mindfulness and Teaching - CARE

Mindfulness and Parenting

Mindfulness Programs for Children and Youth
IT SAYS HERE THAT THE SECRET TO HAPPINESS IS TO ENJOY THE PRESENT.
What are Indicators of Mindfulness in Interpersonal Contexts?

• **Listening with full attention** to children and colleagues

• **Present-centered awareness** of emotions experienced by self and students during interactions

• Openness and **non-(low?) judgmental acceptance** and receptivity to child’s thoughts and feelings

• **Self-regulation in teaching/parenting** - **Low reactivity** and **Low automaticity** in reaction to normative child and adolescent behavior

• **Awareness of and responsiveness to** child’s individual needs – “teachable moments”

• **Compassion** for self and students

*Coatsworth, Duncan, Jennings, Turksma, Greenberg*
Mindfulness and Family-based Prevention

• *Extending Mindfulness to Parenting and Family/Parenting Interventions*
  – Stress
    • Extra-familial (Parent’s lives)
    • Family/Parenting stress
    • Relationship changes and tensions with adolescents
  – Interrupting “Automatic” negative relationship patterns
  – Attention to Parent well-being
  – Focus on Compassion for Self and Youth
  – Application of skills in challenging situations

• *No tests of Mindful Parenting interventions*
Mindful Parenting

• Mindfulness – contextualized for parenting situations
• Intrapersonal and Interpersonal
• 5 Core elements
  – Listening with Full Attention – Present centered attention
  – Emotional Awareness of Self and Child
  – Nonjudgmental Acceptance of child and self
  – Self-regulation in parenting
  – Compassion for Self and Child

Parent Adolescent Dynamics

- Changing Dynamic Interactions *MAY* contribute to cyclical patterns of negativity.

Youth Response/Negativity → Parent Negativity → Increase in HOSTILE/CONTROLLING parenting → Disengage or Withdrawal (Giving Up?)
Study: Small RCT

- 65 Families Recruited + Assigned + Assessed at Baseline
  - SFP:10-14 (N= 23)
  - MSFP (N= 25)
  - Delayed Intervention Control (N=17)

- Assessed immediate Pre and Post - intervention
Results

• Changes in mindful parenting associated with changes in:
  – Anger Management
  – Mother’s positive affect/behavior (m)
  – Mother’s negative affect/behavior (m)
  – Youths positive affect/behavior (m & y)
  – Youth’s negative affect/behavior (m & y)
Overall Mindful Parenting

-0.75  -0.5  -0.25  -2E-15  0.25  0.5  0.75  1

Pre-test  Post-test

MSFP  SFP  Control
Maternal Well-being

Mother Symptoms vs. Global Mental Health

- MSFP v.C
- MSFP v SFP
Observe Thoughts as Thoughts  
Not as Reality

One father, “DT”, said:

- [since participating] I find that the more I can remove the anger that I’m feeling from the situation, the more productive the solution becomes, and I can stop and think and feel and express not only how I am feeling, but it gives her[my daughter] a chance to express how she’s feeling and gives me time, that’s the important thing, gives me some time to understand how she’s feeling and remember how old she is and that no matter what it is, it’s not the end of the world. Usually it’s a pretty minor thing, in the big scheme of things.
Yoga For Kids – Google Search – 21,300,000 hits – Feb 2nd 2010
Promoting Mindfulness with Yoga: A Pilot Study in Urban America

Tamar Mendelson
Mark Greenberg
Ali Smith
Atman Smith
Andres Gonzalez
**Question:**
Can Yoga and Mindfulness support the development of children to improve their coping and attention?

**Method:**
Conduct a pilot randomized controlled trial on the effectiveness of a mindfulness-based yoga program for low-income, urban youth in Baltimore.
Background

- Youth in low-income, urban communities are often exposed to considerable stress, but many have not developed skills for effective coping.

- Mindfulness-based approaches, such as yoga and meditation, may offer unique advantages for enhancing resilience and effective coping and improving both stress management and attentional capacities among at-risk youth.
Design

4 schools – inner city Baltimore
2 randomized to intervention
Grades: 4th and 5th
Recruit and match ~40 intervention and 40 controls (20 kids per school)
Intervention Model

Students attend the Yoga/mindfulness program 4 days/wk for 16 weeks.

Sessions were scheduled during the school day, and lasted ~ 45 minutes.
The Intervention

• Based on a series of yogic exercises that end with a period of mindfulness training.
• Progression from simple to more complex yogic postures concludes with a series of breathing exercises
• The mindfulness training is a guided experience at the end when students lie on their mats in the relaxation pose
• Students are instructed to withdraw their attention from the distractions around them to a focal point inside themselves. They are guided in how to keep their minds focused and centered, strengthening their capacity not to be distracted by thoughts, sensations, or impulses.
Youth focus group data

• “The program has helped me because now I know different routines and exercises that I can do at home that helps me lower and reduce my stress. So whenever I get stressed out I can just do a pose and sometimes I can show my mother and my family.”
  --4th grade girl

• “Most important thing I learned in the program is that it’s all different ways to deal with your stress like instead of like fighting and stuff.”
  --5th grade boy

• “It helps you relieve stress when you really feel stressed out or you’re really mad and focus on what’s inside of you and just make sure that you stay calm.”
  --5th grade girl
Changes in Self-Regulation

- An index of self-regulation; relevant to mindfulness techniques in the intervention
- Has been found to correlate with heart-rate activity
- Subscales:
  - Rumination
    - “When I have problems with other kids, I can’t stop thinking about them”
  - Emotional arousal
    - “When I have problems with other kids, right away I feel really angry, sad, scared, or worried”
  - Intrusive thoughts
    - “When I have problems with other kids, I can’t stop thinking about them when I try to sleep or I have bad dreams about them”
### Intervention effects on self-regulation

<table>
<thead>
<tr>
<th>Time 2 Measure</th>
<th>Intervention</th>
<th>Control</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSQ Involuntary Engagement</td>
<td>0.75 (0.05)</td>
<td>1.05 (0.05)</td>
<td>0.83***</td>
</tr>
<tr>
<td>Rumination</td>
<td>0.76 (0.08)</td>
<td>1.15 (0.08)</td>
<td>0.70**</td>
</tr>
<tr>
<td>Intrusive Thoughts</td>
<td>0.68 (0.07)</td>
<td>0.95 (0.08)</td>
<td>0.51*</td>
</tr>
<tr>
<td>Emotional Arousal</td>
<td>0.65 (0.07)</td>
<td>1.00 (0.08)</td>
<td>0.64**</td>
</tr>
<tr>
<td>Impulsive Action</td>
<td>0.99 (0.09)</td>
<td>1.23 (0.09)</td>
<td>0.38</td>
</tr>
<tr>
<td>Physiologic Arousal</td>
<td>0.70 (0.07)</td>
<td>0.91 (0.07)</td>
<td>0.39</td>
</tr>
</tbody>
</table>

*p < 0.05; **p < 0.01; ***p < 0.001
Pre- and Post-Intervention Involuntary Engagement Scores by Study Condition

- Intervention
- Control
Mindfulness in Teaching CARE
Cultivating Awareness and Resilience in Education
Cultivating Awareness and Resilience in Education (CARE)

- Integrates emotion skills training and mindfulness-based approaches to emotion regulation
- Applies mindfulness to the WAY teachers
  - Teach
  - Relate to students
  - Manage classrooms
  - Model prosocial behavior
- Yearly Facilitator Training at The Garrison Institute (New York State)
- Research Projects in a number of US locations
CARE

Intervention Aims

• Improve Teachers’ Well-being
  – Increase
    • Mindfulness
    • Positive affect
    • Efficacy
  – Decrease
    • Burnout
    • Negative affect
The Prosocial Classroom:
A Model of Teacher Social and Emotional Competence and Classroom and Child Outcomes

Teachers’ Social & Emotional Competence

Healthy Teacher/Student Relationships

Effective classroom management skills

Effective SEL implementation

Healthy Classroom Climate

Student Social, emotional & academic outcomes

School/Community Context Factors

Jennings & Greenberg, 2009
CARE Program

- Program Model
  - 2 days
  - 1 day (2 weeks later)
  - 1 day (2 weeks later)
  - 1 day booster

- Phone coaching

- Online support

- Sustainability plan
# Results of IES Goal 2 Pilot RCT

**Teacher Self-Reports**  
*Covariance Adjusted Post-Treatment Means*

<table>
<thead>
<tr>
<th>Measures</th>
<th>Intervention X N=23</th>
<th>Control X N=27</th>
<th>Significance/ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Efficacy</td>
<td>7.2</td>
<td>6.7</td>
<td>*<strong>/.51</strong></td>
</tr>
<tr>
<td>Time Urgency – Sense of Hurry</td>
<td>3.6</td>
<td>3.38</td>
<td>*/.41</td>
</tr>
<tr>
<td>Daily Physical Symptoms</td>
<td>20.6</td>
<td>14.1</td>
<td>*<strong>/.54</strong></td>
</tr>
<tr>
<td>Emotion Regulation (ERQ) Reappraisal</td>
<td>5.25</td>
<td>4.54</td>
<td>*<strong>/.72</strong></td>
</tr>
<tr>
<td>Emotion Regulation (ERQ) Suppression</td>
<td>2.8</td>
<td>3.35</td>
<td>.08/.43</td>
</tr>
<tr>
<td>Maslach Burnout – Personal Accompl.</td>
<td>4.79</td>
<td>4.51</td>
<td>* /.40</td>
</tr>
<tr>
<td>PANAS – Positive Affect</td>
<td>3.46</td>
<td>3.36</td>
<td>NS/.20</td>
</tr>
<tr>
<td>PANAS- Negative Affect</td>
<td>1.99</td>
<td>2.33</td>
<td>NS/.36</td>
</tr>
<tr>
<td>CES Depression</td>
<td>12.6</td>
<td>15.6</td>
<td>NS/.29</td>
</tr>
</tbody>
</table>
“I’m being more aware of the kids, more opportunities to talk with them, just more aware in general, of myself, what I’m feeling, what I’m eating, what I’m doing, where I’m going...my awareness has just been heightened. And if I can just keep reminding myself of that, just to be aware, aware of other people, aware of my own ‘stuff’, that’s a huge thing for me in life.”

Teacher after CARE
Self-Regulation/De-centering

“I’m much more calm. Even when I’m at home, drinking coffee, my mind’s not racing in a thousand different places, I’m just liking my coffee. I’ve learned how to just take things for what they are and not keep everything on my shoulders all the time. And because I’m not doing that anymore, that allows me to treat my kids better and address their needs better and try and teach them to be that way through my example.”

Teacher after CARE
Ways to Facilitate Mindfulness in Interpersonal Contexts: A Taxonomy
Types of Mindful Practices

Intrapersonal Activities
- Forms of Sitting Meditation
- Walking Meditation
- Forms of Yoga
- Forms of Prayer

Interpersonal Activities
- Deep Listening
- Story Telling
- Contemplative Dialogue/Discourse
- Council Procedures in Groups
- Empathy Training
- Forms of Martial Arts
- Forms of Service Learning
- Contemplative Art and Music
- Contemplating the Natural World
- Awareness During Daily Activities

Types of Outcomes

Intrapersonal Outcomes
- Brain Activity
- Symptoms (pain, distress)
- Self Reports of Intrapersonal Mindfulness

Interpersonal Outcomes
- Improved Interpersonal Relations
- Self-Awareness in Everyday Interactions
- Self-Regulation in Everyday Interactions
- Self- Report of Interpersonal Mindfulness
- Compassion for Self
- Compassion for Others

Explicit Combinations of Both
Are Mindfulness and Practices the Same Thing?

Mindfulness/Awareness

Practices
Meditation
Yoga
Cultivation of Positive Affect
Martial Arts
Service Learning
Being Intentional

“I think what helps me is when I get frustrated on my way to school, I just stop myself and set an intention. What do I really want to do today? What’s really important that I do today. It’s more freeing than setting a goal or a to-do list.”

Teacher after CARE
Insight/Attributional Shift

“I like ‘attitude adjustment’. I think that’s a good way (to describe CARE). Because it really is your whole, the way you look at lots of different things...it’s almost like you give people a cushion, and I’ve given my kids a cushion, and I’ve given myself a cushion, and allowed myself to realize why I react certain ways to certain things and that helps me...to maybe just not put it on other people anymore. I think about myself differently, and I think about my students differently now. I think ‘attitude adjustment’ is a good way to put it, not that you had a bad one before, but you look at everything differently.”
Questions to Ask When Examining a Practice

• What are the Goals/Outcomes?
• What Can Be Measured and How?
• What Practices or Activities Increase Mindfulness?
• How do the Goals/Outcomes, Measurements, and Practices/Activities change with age and context?
Skills and Competencies

• Mental Skills
  – Self Regulatory Skills
    • Attention
    • Emotion (Calmness)
  – Cognitive Skills
    • Cognition (Clarity/Awareness)
    • Ability to Decenter
    • Attributional Shifts

• Social-emotional-behavioral Competencies
  • Empathy/ Compassion (Kindness)
  • Communication Skills (deep listening, thoughtful dialogue)
We Need Clear Description of Interventions

• Rich description of intervention
  – Specific instructions
• What is the source(s) of intervention?
• Has it been modified to be age-appropriate?
• Who is instructor? What is their training?
• What is the dosing – frequency?
• Are there out of session assignments?
What Can Mindful Practices Do

• May Have Quite Different Outcomes Depending on the Practices (Breathing, Yoga, Compassion Focus, Attention Focus)
• May Depend on the Population
• Having a clear theory of change is critical and this needs to be contextualized
"Never, ever, think outside the box."
Partners:
- Garrison Institute
- Contemplation & Education Leadership Council
- Holistic Life Foundation: Travelling Yogis
- Johns Hopkins – School of Public Health
- Numerous Public School Districts
- Penn State – Prevention Research Center

Funders:
- Garrison Institute
- Mind and Life Institute
- Attias Family Fund
- Johns Hopkins Ctr on Violence Prevention
- PSU Center
- U.S. Department of Education
- National Institute of Drug Abuse