# Chapter 7

# Mindfulness-Based Stress Reduction for School-Age Children

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During the past several decades, numerous studies have documented the benefits of teaching mindfulness skills to adults within the context of mindfulness-based stress reduction (MBSR; Kabat-Zinn, 1990) courses. These skills have proven to be reliably effective in reducing symptoms of anxiety and depression (Ramel, Goldin, Carmona, & McQuaid, 2004; Segal, Williams, & Teasdale, 2002) and increasing self-regulated behavior and positive emotional states (Brown & Ryan, 2003). However, little is known about modifying MBSR to make it applicable and effective for children. The goals of this chapter are to (1) provide an overview of an MBSR curriculum designed for children in grades 4 through 6 and their parents, and (2) report preliminary research findings based on the implementation of this curriculum. Specifically, the data address whether mindfulness training is feasible for children and whether such training enhances attention, self-regulation, social competence, and, perhaps most importantly, children's overall well-being.

Drs. Amy Saltzman and Philippe Goldin met and began collaborating to study the effects of mindfulness training for children and families. While Philippe brought his knowledge of research methodology, laboratory resources, and experience of offering mindfulness to adults with anxiety disorders, Amy brought her expertise in delivering mindfulness to children and families. Because the goal of this book is to provide a practical how-to description of mindfulness training for children, we have chosen to write this chapter in an informal style that reflects what works well with children.

First, we provide some background. When Amy's daughter was six months old, her three-year-old son asked if he could meditate with his sister. Based on this request, Amy began sharing the practice of mindfulness with her children. Over time, together they created and adapted the practices included in the current child MBSR course curriculum. After developing the practices with her children and reading repeatedly about childhood stress in both the professional and lay literature, Amy began to wonder what it would be like if children learned mindfulness skills early in their development. Do children who are able to experience thoughts, feelings, and bodily sensations without being overwhelmed become individuals who are more resilient in the face of stress? Can access to a natural sense of peace and trust in one's internal wisdom lead to decreased susceptibility to peer pressure and risky behaviors?

Initially Amy explored these possibilities in an informal way by sharing mindfulness practices in elementary schools and community settings. Teachers commented that their students were calmer and more focused when beginning their day with mindfulness. Teachers of older students reported that the students were more aware of, and thus better able to deal with, their increasingly complex thoughts and emotions. While these observations were encouraging, the scientist in Amy wanted to know if the children were really benefiting from mindfulness in measurable and meaningful ways.

Meanwhile Philippe had been documenting the benefits of teaching mindfulness to adults with anxiety disorders. Many of the adults in his mindfulness groups commented that they became aware of their anxiety around age ten and that they wished they had learned mindfulness skills decades earlier. This piqued Philippe's curiosity about offering the practices of mindfulness to children.

The following research questions arose from our combined experiences:

- Do children benefit from mindfulness training in measurable and meaningful ways?
- What are the most skillful ways to teach mindfulness to children?
- In what settings are children most likely to learn mindfulness skills?

# Age-Appropriate Adaptations

When sharing mindfulness with children, it is essential that our offerings come from the depths of our own practice, that we use age-appropriate language, and that it be fun and engaging. To highlight these elements, Amy offers the following vignette:

At some point, my son began teaching his kindergarten teacher mindfulness. The teacher then asked me to share some practices with her class. So one morning several years ago, I found myself lying on the floor with nineteen

five-year-olds. After the first practice, I asked the children to describe how they felt. As we went around the circle, children reported feeling "calm," "relaxed," and "happy." I felt pleased. Then one child said, "Dead." I watched the teacher's eyes become as big as saucers; she was panicked. I felt a momentary tightening within myself. The teacher had no mindfulness practice to provide her with either an understanding of the child's experience or a way of working with her fear. We continued around the circle, and as often happens in kindergarten, several children repeated some version of the previous answers, including "dead." After everyone had spoken, I returned to the children who said "dead," and asked, "What does dead feel like?" They answered, "like a swan," "like an angel," or "like floating."

Many children in our culture do not have words to describe feeling awake, alert, and still. "Dead" was as close as they could come to describing the experience of being in what we call the Still Quiet Place. This vignette illustrates several important points related to teaching children mindfulness:

- Teaching mindfulness must come from the depth of our own practice. Amy's practice allowed her to be aware of what was arising within her, to understand the children's and the classroom teacher's experience, and to respond to both. This is the essence of mindfulness. Mindfulness is simply paying attention in the present moment, with kindness and curiosity, and responding rather than reacting to the circumstances. In the previous example, Amy was aware of her brief attachment to the children having a relaxing experience, and of the sensations of concern and doubt as they arose. Simply noting these internal experiences without getting caught up in them enabled her to attend to the children. Years of mindfulness practice allowed her to "get" what the children really meant by "dead" and to respond accordingly.
- Teaching mindfulness is not the "see one, do one, teach one" model typically embraced in education. Rather, mindfulness requires that we practice it, live it, be it, and practice it some more before we offer it to others.
- Adult interpretations of words and experiences can be quite different from the interpretations of the children sitting in front of us. It is better to ask than to assume we know what the children mean when they use a particular word.
- Creative translation is essential when imparting the practice of mindfulness to children.

### Still Quiet Place: Introduction and Translation

Below is the way that Amy typically introduces the Still Quiet Place and translates the essence of mindfulness so that even very young children can experience it:

Hello. My name is Amy, and I would like to share one of my favorite places with you. I call it Still Quiet Place. It's not a place you travel to in a car, or a train, or a plane. It is a place inside you that you can find just by closing your eyes. Let's find it now.

Close your eyes and take some slow deep breaths. See if you can feel a kind of warm, happy smile in your body. Do you feel it? This is your Still Quiet Place. Take some more deep breaths and really snuggle in.

The best thing about your Still Quiet Place is that it's always inside you. And you can visit it whenever you like. It is nice to visit your Still Quite Place and feel the love that is there. It is especially helpful to visit your Still Quiet Place if you are feeling angry, or sad, or afraid. The Still Quiet Place is a good place to talk with these feelings and to make friends with them. When you rest in your Still Quiet Place and talk to your feelings, you may find that your feelings are not as big and as powerful as they seem. Remember, you can come here whenever you want, and stay as long as you like.

With skillful adaptation, the concept of Still Quiet Place can be used with students from ages three to ninety-three years old. The language above is for children ages three to seven, who are able to simply experience the Still Quiet Place and to feel it in their body-mind. With older children, the language can be more body focused with less emphasis on the Still Quiet Place as a location. Children ages five to nine can begin to remember to visit their Still Quiet Place when they are upset, and some may be able to use the practice to allow them to respond to upsetting circumstances. Most children ages nine to thirteen can apply the practices of mindfulness in much the same way as adults do; they can be aware of their thoughts, feelings, and physical sensations, and then practice responding rather than reacting to their life circumstances.

For younger children, a very simple twenty-minute weekly session—consisting of one practice, brief comments from some of the children, followed by another practice and comments from the remaining children—will support them in becoming familiar with the Still Quiet Place. For a single formal practice, a general rule of thumb is that children usually can practice one minute per their age in years. (For example, five-year-old children can generally do formal guided practice for about five minutes.) With a group of ten or more preschoolers or kindergartners, if each child speaks after each practice, the children may get restless and the experience of the practice may be long gone by the time it is the last child's turn to speak. Thus, we recommend that you hear from just some of the children after each practice. For slightly older children, let their comments and behavior guide you. With encouragement, some may be able to apply mindfulness in their daily lives. The course outline below is for children ages eight and up.

#### MBSR for Children: Course Outline

The primary intention of the course is to offer children an experience of the Still Quiet Place and to have them use mindfulness in their daily lives to respond rather than react to everyday events. Below are the basic features of the course:

- **Participants:** The course can be offered either to children only or to children and one or both parents.
- Class size: Eight to thirty participants is the usual class size.
- Sessions: The program is eight sessions (two the first week and one every week thereafter).
- Session length: The time varies from forty to ninety minutes per class, depending on the setting and class size.
- Mindfulness practice: The training consists of both formal practice (including body scan, sitting, eating, and walking exercises) and informal practice (focusing attention, attending to the present moment, choosing responses to everyday events). We use additional in-class exercises to enhance mindful awareness, artistic expression, and verbal communication.
- Home practice: In addition to the weekly group sessions, the participants are encouraged to engage in home practice to reinforce and deepen their in-class learning. Together the training and home practice involve exercises that focus on developing a familiarity with the Still Quiet Place and the application of mindfulness in daily life.
- Materials: Participants receive a workbook, a CD of twelve different short practices, and home-practice monitoring sheets to guide and support their home practice.

An overview of the mindfulness course we offer to children is presented in table 1 (a detailed child MBSR program manual will be published soon; Saltzman, in press). Due to page limitations for this chapter, we have chosen to describe one class in detail and to follow that with brief descriptions of the practices unique to this curriculum for children (see Additional Exercises and Practices, below). All of the formal guided practices can be found on the CDs Still Quiet Place: Mindfulness for Young Children (Saltzman, 2004) and Still Quiet Place: Mindfulness for Teens (Saltzman, forthcoming). For a description of practices that are shortened and adapted from the adult curriculum, please refer to Full Catastrophe Living, by Jon Kabat-Zinn (1990).

The outline below is a brief sketch of our program. Ultimately every group creates its own masterpiece—moving lines, adding shading and color to reveal depth and

Table I. Overview of Eight-Week Mindfulness-Based Stress Reduction Course for Children

	- Inte	Intentions	Class Agenda	Home Practice
Introduction to Program (parents only) 2 hours		Provide an experience of mindfulness Introduce program to parents	<ul> <li>Mindful Eating—raisin (see Mindful Eating)</li> <li>Review data on benefits of mindfulness for adults and children</li> <li>Review the rationale for offering MBSR to children</li> <li>Discuss course structure and time commitment</li> <li>Answer questions</li> </ul>	None
Class I		Provide definition of Still Quiet Place/ mindfulness Establish ground rules Offer an experience of mindfulness	<ul> <li>Mindful Eating Practice</li> <li>Introduce Still Quiet Place</li> <li>Mindfulness as "paying attention to here and now"</li> <li>Begin breath-based practices such as Jewel/ Treasure (see Additional Exercises and Practices)</li> </ul>	<ul> <li>Jewel/Treasure Exercise</li> <li>Monitor pleasant experiences using Pleasant Experiences Calendar</li> <li>Engage in one mindful activity (e.g., brush teeth, shower, do a chore, care for a pet)</li> </ul>
Class 2		Explore experience with formal and informal practice Discuss how to make time for home practice Examine how often our attention is in the past or future	<ul> <li>Mindful Eating Practice</li> <li>Review class 1 and home practice</li> <li>Jewel/Treasure Exercise</li> <li>Answer questions about the practice</li> </ul>	<ul><li>Same as Class I</li><li>Eat a snack or meal mindfully</li></ul>

	Intentions	Class Agenda	Home Practice
Class 3	<ul> <li>Continue to deepen the exploration of formal and informal practice</li> <li>Cultivate the capacity to observe one's thoughts and feelings</li> <li>Attend to the body</li> </ul>	<ul> <li>Mindful Eating Practice</li> <li>Review class 2 and home practice</li> <li>Introduce concept of "funny mind" (internal dialogue, see Home Practice section)</li> <li>Body Scan Exercise (mindfulness of bodily experiences)</li> </ul>	<ul> <li>Body Scan Exercise (mindfulness of bodily experiences)</li> <li>Monitor unpleasant experiences using the Unpleasant Experiences Calendar</li> <li>Notice "funny mind"</li> <li>Notice times when you feel stressed</li> <li>Engage in mindful activity</li> </ul>
Class 4	<ul> <li>Examine thoughts and feelings associated with unpleasant experiences</li> <li>Explore perceptions</li> <li>Introduce yoga as one way to practice mindfulness</li> </ul>	<ul> <li>Mindful Eating Exercise</li> <li>Review class 3 and home practice</li> <li>Exercises to explore perception—how do we view ourselves and each other?</li> <li>Exercises to investigate thoughts associated with difficult tasks</li> <li>Yoga</li> </ul>	<ul> <li>Body Scan Exercise/Yoga (mindfulness of bodily experiences during yoga)</li> <li>Monitor unpleasant experiences using the Unpleasant Experiences Calendar</li> <li>Use awareness of breath to slow things down in everyday life</li> <li>Engage in mindful activity</li> </ul>
Class 5	<ul> <li>Examine how resistance and how wanting circumstances, ourselves, or others to be different creates suffering</li> <li>Explore how "funny minds" are often inaccurate, negative, or looking for trouble</li> <li>Develop emotional fluency, or the ability to be aware of feelings without resisting or indulging them</li> </ul>	<ul> <li>Mindful Eating Practice</li> <li>Review class 4 and home practice</li> <li>Explore thoughts and feelings associated with unpleasant experience</li> <li>Begin to develop concept of "funny mind"</li> <li>Feelings Practice</li> </ul>	<ul> <li>Continue Feelings Practice, using haiku, other poetry, or art to depict feelings</li> <li>Notice moments of reactivity and explore ways of responding</li> <li>Engage in new mindful activity</li> </ul>
Vacation	<ul> <li>Maintain home practice without support of weekly class</li> </ul>		<ul><li>Notice moments of reactivity and explore ways of responding</li><li>Engage in new mindful activity</li></ul>

Class 6	y to observe s y to respond uring difficult	Mindful Eating Practice Review previous class topics and home practice Explore Feelings Practice through haiku, art, etc. Thought Parade Exercise Walking Practice (see brief description in Home Practice section) Moving our practice into the world Mindful Eating Exercise Review class 6 and home practice	<ul> <li>Thought Parade Exercise</li> <li>Take a "Thoreau walk"</li> <li>Feelings Practice</li> <li>Difficult Communication Calendar (see brief description in Home Practice section)</li> <li>Continue responding to stressful situations and to "funny mind"</li> <li>Loving-Kindness Exercise</li> </ul>
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	the capacity to		Continue responding to stressful
		Communication dyads (one person	situations and "funny mind"
	react	describes a difficult communication;	<ul><li>New, more challenging mindful</li></ul>
	ess Practice	the other listens and reflects, then	activity
		they reverse roles)	Imagine the world from someone
	-	Share examples of responding, and	else's point of view
		role-play new responses to situations	<ul><li>Bring something to share for the last</li></ul>
		when the children reacted	session that represents what the class
	-	Introduce Loving-Kindness Practice	has meant to you
Class 8	y to send and	Group choice	■ Your choice
receive love	-	Review class 7 and home practice	<ul><li>Flashlight Exercise</li></ul>
■ Choose if and how you w	■ Now you will use	Letter to a friend	Make a commitment as to how you
mindfulness in your life		Making the practice your own	will continue
■ Reiterate that instructors are available	ctors are available		
for ongoing support			

perspective. Each session, and the course overall, must be responsive to the individuals and experiences in the room. It is particularly important to attend to children's natural desire for movement. Sometimes it is skillful to let the children sit with their restlessness and notice the associated sensations, thoughts, and feelings. Other times it is skillful to let them be seaweed, or to dance, drum, or do hasty walking or energetic yoga.

# Class Six: A Detailed Example

Class six is three-quarters of the way through the course. The children have become familiar with the Still Quiet Place, have some basic mindfulness vocabulary, have come to expect snacks, and are not shy about expressing their preferences. In class six, we continue Mindful Eating Practice and work with children on what we refer to as Feelings Practice. We begin Walking Practice (walking with mindful awareness, noticing your experience while placing one foot in front of the other) and move our practice to the outside world. Home practice involves continuing to practice activities and skills learned during class. We describe the key exercises in class six below.

#### Mindful Eating

In after-school settings, we always begin class with Mindful Eating, where children mindfully eat apples, tangerines, or Fig Newtons. Avoid snacks high in sugar and make sure to check for food allergies. In the beginning of the course, we have children look at the food offered and simply describe what they see—color, texture, stem (where it used to be connected to something else)—what they smell, and what is happening in their mouths as they look and smell. Then, in guided silence with their eyes closed, the children are instructed to take one bite.

Take one bite, paying attention to what is happening in your mouth, noticing the taste. Don't rush; take one bite at a time, noting how the taste changes, how your teeth and tongue work ... See if you can notice the urge to swallow, and then feel the swallow as the food moves down your throat ... After you have swallowed, when you are ready, take another bite. Take your time. Be curious about your experience. Before you open your eyes, notice how your body, mind, and heart feel now, in this moment.

Eating a single bite mindfully may take a minute or more. This practice is a very concrete way for the children to practice bringing their attention into the present moment. At this point in the course, the children are familiar with mindful eating, and we may simply eat three to four bites in silence. After eating, we may use comments about expectations and preferences as springboards for exploring the inner experience of expectations, desire, and aversion.

#### **Feelings Practice**

The home practice for the preceding week included Feelings Practice and creating two artistic representations of the feelings the children experienced during the meditations. Feelings Practice involves becoming aware of and naming the current feeling state, and acknowledging that feelings may have ordinary names, like angry, happy, and sad, or more unusual names, like stormy, fiery, and empty. One boy playfully named his feeling "Herb." This exercise helps the children become more comfortable with identifying and expressing their emotions. It may be helpful for the facilitator to tell children that there may be layers of feelings or that the feelings may be subtle or somewhat shy.

After noting the feelings, the children are invited to notice where the feelings are experienced in the body (e.g., sitting in the chest, stirring in the belly, resting in the big toe). Then they are encouraged to notice if the feelings have colors (e.g., dark red, deep blue, bright green) or a sound (e.g., giggling, groaning, whining). We then encourage the children to ask the feelings what they want. Usually feelings need something simple, like attention, time, and space. We ask the children if they are willing to give the feelings what the feelings requested. This exercise decreases the tendency to overidentify with emotions, while enhancing a perspective of playfulness and curiosity toward emotions.

It is essential to give room for expression of the entire spectrum of experience. In general, this process allows children to really feel their feelings. Our experience suggests that unlike many adults, children do not tend to struggle with the guidance and overthink the practice. For example, a child will very matter-of-factly report that her feeling is purple with green spots, groans, and needs love. Occasionally the feeling will want something the child is unable to give, and we suggest that he or she ask the feeling if there is something else it wants. If a child repeatedly reports that he or she is bored, we have him or her look underneath the boredom, and often the child discovers sadness, anger, or fear.

In class six, we invite children to share their artistic representations of their feelings from the preceding week. Children always have the right to pass. However, we encourage them to stretch gently into any discomfort they may have about sharing; the discomfort represents another opportunity to practice mindfulness of feelings. With children who tend to be shy, we use the analogy of physical stretching in yoga. We suggest that they stretch toward sharing their experience and speaking up, while simultaneously honoring their limits. We remind them that, as with physical stretching, their capacity for being with their feelings and for sharing will change from day to day and moment to moment. In this way, we are cultivating the capacity to be with feelings without resisting or indulging them.

Children and adults tend to have habitual ways of interacting with their feelings. Without inquiry and insight, most of us tend to live within a fairly narrow range along the continuum of suppressing feelings or being overwhelmed by them. For those who tend toward suppression, the Feelings Practice described above may support them in becoming more emotionally fluent. For those who tend to be overwhelmed, they may benefit from having time to really anchor into the Still Quiet Place before meeting feelings. It can be helpful to clarify that we want to have our feelings without our feelings having us.

When the children are sharing their artistic representations of their feelings, we occasionally comment, responding to an individual child or a group theme, or offer a principle of mindfulness. At other times, we remain silent because someone has offered something profound that has touched everyone's heart.

#### Seaweed Practice

If the group is getting wiggly, we may do one of many brief movement practices, perhaps something as simple as "being seaweed." Each child is a strand of seaweed anchored to the floor. Initially we are in a strong current, making big rapid movements. Gradually the current decreases, and our movements become smaller and smaller until there is very gentle swaying and then stillness. Throughout the Seaweed Practice, the children are gently reminded to be aware of their physical sensations, thoughts, and feelings. This practice simultaneously honors the children's natural need for movement and continues to develop their capacity to pay attention; in this exercise the focus of attention is on the experience of moving.

Following the brief movement practice, we continue exploring stressful or difficult circumstances from the previous session. In earlier home practice (note that we do not call it "homework" to avoid any potential negative associations), the children have observed thoughts, feelings, and physical sensations that arise in stressful situations. They have also learned to use awareness of breathing to slow things down in everyday life. In class six, we discuss the preceding week's home practice of responding rather than reacting to life's circumstances.

#### Baseball Analogy

In one class, a boy described a frequent stressful interaction with his mother. The boy wanted attention, and his mother wanted some time and space. The boy also happened to love baseball. So we used the analogy that his mother threw him a curveball—meaning that she was not available. As a group, we explored what his "home run" responses might look like. Then we continued around the room, and each person was given the opportunity to describe a "curveball" scenario (difficult communication) in his or her life (e.g., spouses arriving late for dinner, parents wanting children to go hiking when the children didn't want to go). For the most part, the child or parent presenting the difficult communication offered his or her own "home run" response.

When the person presenting the scenario could not come up with a "home run" response, we had plenty of wise "batting coaches" in the room to offer ideas. For example, an older boy suggested to the boy mentioned above that he make an agreement with his mom to do his own thing for fifteen minutes, and then she would play with him for fifteen minutes. The boy and his mother both felt this was preferable to their usual mode of interacting. This particular exercise arose simply from knowing that the boy loved baseball and the intention to speak to him using an analogy that was meaningful to him. Because the boy presented the scenario, we focused the discussion and practice on

exploring the range of responses available to him. There is also a parallel conversation to be had with his mother, exploring the variety of "home run" responses available for her.

#### Thought Parade Exercise

In the Thought Parade Exercise, children sit in chairs or lie on the floor, anchor their attention on the breath, and then begin to watch their thoughts go by as if they are watching a parade. They may notice that some thoughts are loud and brightly dressed, other thoughts are shy and lurk in the background, and still others come back again and again. When children notice they are marching with the parade (i.e., lost in thought), they are encouraged to return to the sidewalk and simply watch the thoughts go by. This practice supports children in watching their thoughts without believing them or taking them personally.

As an example of the Thought Parade Exercise, we offer the following story:

In one fifth-grade class, some of the boys were skeptical of mindfulness. One Wednesday when practicing the Thought Parade Exercise, they noticed that many of their thoughts related to their basketball game that afternoon. They had lost the previous game, and that afternoon they were playing a team that they thought was better than they were. They were worried about losing, playing poorly, and letting the team down. They wanted to win. The leader asked the boy who, in general, had been cool, funny, and less than participatory in the way that some ten-year-old boys can be, "If you are thinking about winning and losing, is your head in the game?" His eyes got big. His mouth hung open. He was in. Mindfulness is relevant. The leader reminded the class that two of the most successful teams in professional basketball, the Los Angeles Lakers and the Chicago Bulls, use mindfulness to bring their attention fully into the game, narrowing their focus to the ball, their teammates, and the opposing team, not getting distracted by the score or the noise of the crowd.

#### Home Practice

An essential component of the course is home practice. Home practice includes both formal guided practices of resting in the Still Quiet Place and observing thoughts, feelings, and physical sensations, as well as informal practice exploring the applications of mindfulness in daily life. The home practice builds on the children's experiences from the preceding class and provides a starting point for the discussion in the following class.

When we teach the child-parent mindfulness course, both the children and the parents receive the same CD and workbook for home practice. At Stanford, we like to joke and tell the kids this is their first college course. The participants know that if a child picks up a parent's workbook or a parent picks up a child's workbook, they are exactly the same. This emphasizes that we are all in this together.

It is important to create the conditions that support the participants in doing the daily home practice. This involves identifying a regular time each day to practice; most children and families find that before homework or before bed works best. However, it is important to encourage families to be creative in when and how to implement the mindfulness practice in their daily lives. Supporting children and families to do the home practice involves a combination of encouraging, offering specific suggestions, nudging, and challenging, while simultaneously creating an environment that relies on evoking curiosity (rather than guilt) about what gets in the way of actually making time and doing the practice. Unlike home practice for adult MBSR courses, the guided formal practices for this course are just four to twelve minutes long.

At the end of each class, we review the home practice for the following week. We describe the practices for the upcoming week, address any potential obstacles, and reemphasize the importance of home practice. We explain that mindfulness is like learning a sport or learning to play a musical instrument. Mindfulness requires ongoing practice. Sample home practice exercises include the following:

- Practice the Thought Parade using the CD each day.
- Do Walking Practice at least three times during the week.
- Take a "Thoreau walk," giving your full attention to the experience of walking, feeling the movements of your body, seeing the colors, hearing the sounds, smelling the smells around you, and noting your thoughts and feelings. (This exercise was named after the American author Henry David Thoreau, who wrote about his experiences with practicing mindful awareness in daily life.)
- Complete the "Difficult Communication Calendar" [see below] for one difficult communication each day. This will help you understand the thoughts and feelings associated with difficult communications, notice your usual ways of reacting to situations, and explore new ways of responding. Practice responding to "funny mind" and stressful situations. ["Funny mind" refers to the negative internal dialogue of our minds. "Funny mind" includes thoughts that may be inaccurate, that may argue with reality, and that may be painful.] For example, you might notice the following "funny mind" thought sequence: "I can't do this problem. I can't do math. I am going to fail. I am stupid." Noticing these "funny mind" thoughts helps you remember that thoughts are just thoughts. Then you can return your attention to actually doing the math. Complete the Practice Page with kindness, curiosity, and freedom from guilt. [The Practice Page is a daily log that children use to document their formal and informal mindfulness practice over the week.]
- Call or e-mail us with comments, questions, or concerns.

#### Additional Exercises and Practices

Now let's look at some additional exercises and practices that can be incorporated into various sessions. Together the practices below represent developmental adaptations and truncated practices from standard adult MBSR curricula.

Jewel/Treasure Exercise. Bring a basket of medium-sized stones and have each participant choose one. Ask everyone to lie down on their backs and place the stone on their belly button, either inside or outside their clothing. Invite the children to feel the stone move up with the in-breath and down with the out-breath. Invite them to notice the space between the in-breath and the out-breath, and a second space between the out-breath and the in-breath. Let them notice how it feels to rest their attention on the breath and the Still Quiet Place between the breaths.

Loving-Kindness Practice. Ask participants to remember a time when they felt loved by someone, such as a parent, grandparent, teacher, friend, or pet. It may be helpful to suggest that this can be a very simple moment such as a hug or a smile. Then invite the children to really feel this loving moment, to open their hearts, and to receive the love of this moment. Ask the children to send love to the person or animal who loves them. Very young children enjoy blowing kisses. Older children can simply imagine receiving and sending love. Have them feel the love flowing between themselves and the person or animal who loves them. This sequence can be repeated for others who love them. Children can experiment with sending love to someone they don't know well, such as the server in the school cafeteria or the person who delivers their mail. Children might then think about someone they are having difficulty loving, such as their "ex-best friend" or their sibling. This exercise can be closed by asking the children to send love to themselves, and to feel their love returning to them, and then to send love to the whole world and feel the whole world's love returning to them.

Flashlight Exercise. Invite the participants to sit or lie in a comfortable position and play with the "flashlight of their attention." Ask participants to focus the flashlight in turn on thoughts, emotions, sounds, sensations, and their breath. Then focus on whatever drifts through the light and then focus back on the breath again. Ask participants to expand their attention to include everything and then have them narrow their attention to just one object (and so on).

The exercises above represent some of the curriculum on which our research is based. We now review preliminary research results documenting the impact of our curriculum for children in fourth through sixth grades and their parents.

# Difficult Communication Calendar

Have you resolved this issue yet? How?	
How did you feel during and after this time?	
What did the other person(s) want? What did they get?	
What did you really want from the person or situation? What did they get?  What did you acturally want?	
How did the difficulty come about?	
Describe the communication, with whom? The subject?	

# Research Findings

To evaluate the impact of the child-parent MBSR course, we are conducting a study of children and their parents. We have two main goals for our project: (1) to examine the feasibility of training families in mindfulness practice, and (2) to measure specific dimensions of psychological functioning that we hypothesized would change with mindfulness training.

The preliminary results presented below are based on a self-referred nonclinical community sample of twenty-four families (thirty-one children and twenty-seven parents) who enrolled in our child-parent MBSR program, and eight families (eight children and eight parents) who completed the waitlist control condition. We are in the process of analyzing the additional waitlist control data. The sample consisted of high-functioning, middle-class families with children in grades 4 through 6, who were primarily European Americans from the area around Stanford University. Participants in the MBSR course attended in a variety of combinations: one child and one parent; two children and one parent; two parents and one child; and five families of four. Of the twenty-four families who began the course, only four families dropped out, a 17 percent attrition rate. Given the complexities of juggling child and parent schedules as well as scheduling child care for siblings, we were happily surprised that so many families sustained their participation in the eight-session MBSR course. This suggests that a family format of MBSR can be implemented.

With respect to MBSR-related changes in functioning, we measured targeted domains previously shown to be influenced by mindfulness training. Based on reviews of MBSR-related changes in adults (Allen, Chambers, & Knight, 2006; Baer, 2003; Grossman, Niemann, Schmidt, & Walach, 2004) and models of mindfulness mechanisms (Shapiro, Carlson, Astin, & Freedman, 2006), we investigated attention (i.e., alertness, switching, cognitive control), emotional reactivity and regulation, anxiety and depression symptoms, and metacognitive functioning (i.e., self-compassion, self-criticism, mindfulness skills). We used a battery of self-report questionnaires with child and adult versions, and computer-administered cognitive-affective tasks to measure changes in functioning from pre- to postmindfulness training.

# Differences in Child-Parent Baseline Functioning

To better understand our sample, we examined whether children and their parents demonstrated any differences in psychological functioning at baseline. Compared to their children, parents demonstrated better attention skills, including alertness and cognitive control, based on the Attention Network Task (Fan, McCandliss, Sommer, Raz, & Posner, 2002), as well as greater critical self-judgment and overidentification with negative beliefs on the Self-Compassion Scale (Neff, 2003). Compared to their children, parents in this sample have more developed attentional capacities and appear to be more critical of themselves.

Because previous studies with adults have shown reliable reductions of mood and anxiety symptoms after mindfulness training (Ramel et al., 2004; Segal et al., 2002), we examined the relationship of state anxiety with psychological functioning in children and their parents at baseline. We found that state anxiety was associated with greater depressive symptoms in children (Children's Depression Inventory [Kovacs, 1992; r = 0.44, p < 0.05) and their parents (Beck Depression Inventory-II [Beck, Steer, & Brown, 1996], r = 0.39, p < 0.06). In parents, state anxiety was strongly associated with lesser mindful awareness (Cognitive Affective Mindfulness Scale-Revised [Feldman, Hayes, Kumar, & Greeson, 2003], r = -0.69, p < 0.0005) and self-compassion (Self-Compassion Scale, r = -0.64, p < 0.001). Children's state anxiety was associated with greater self-endorsement of negative social traits (Self-Referential Processing Task, r = 0.62, p < 0.01) and with poorer cognitive control of attention (Attention Network Task, cognitive control component, r = 0.53, p < 0.05). This suggests that there may be an important link between anxiety and poorer psychological functioning in both the children and their parents. At the beginning of the study, the most anxious children were also more depressed, more likely to describe themselves in negative terms, and less able to control their attention. The most anxious parents were also more depressed, less compassionate with themselves, and less mindful (aware in the present moment).

# Changes from Pre- to Post-MBSR

In the domain of attention, we found an interaction between group and time such that MBSR versus waitlist participants showed a significantly greater improvement on the cognitive control of attention component of the Attention Network Task. Both children and parents in the MBSR program demonstrated the same pattern of improvement from pre- to post-MBSR. Compared to families on the waitlist, children and parents who participated in the MBSR group demonstrated increased ability to direct their attention in the presence of distracters that usually induce conflict. Cognitive control of attention is the last to reach maturity during the developmental trajectory and is also most tightly coupled with academic success.

In regard to emotional reactivity, we found that participants in the MBSR group versus the waitlist group reported significantly less negative emotion in response to physical and social threat scenarios. This effect was stronger in parents than children. With respect to positive or negative self-view, we found no evidence of change in either the MBSR or waitlist participants.

For mood symptoms, while children did not show a change, their parents reported significant reductions in both anxiety symptoms and depression symptoms from pre- to post-MBSR. In the domain of metacognitive functioning, children and their parents both reported improvement for self-judgment and self-compassion. Only parents however, showed significant reduction in isolation and overidentification with negative beliefs. After MBSR, children were more compassionate and less judgmental with themselves, and parents were more compassionate and less depressed, anxious, and judgmental

with themselves. Considered together, these results suggest that both children and their parents may improve in attention, emotion, and metacognitive processes following mindfulness training.

# Analysis of Potential Mediators of Change

We examined average weekly home mindfulness practice as a potential mediator of MBSR effects on psychological functioning. First, we looked at group differences in two types of home practice: formal (e.g., guided sitting, body scan) and informal (e.g., a meaningful pause, mindfulness in daily life). Because children and parents listened to the guided practices together, they reported the same amount of formal practice. However, parents demonstrated a near-significant trend toward a greater amount of informal practice (integrating mindfulness into their daily lives) than their children (p = 0.07).

Next, we investigated whether amount and type of home practice was a potential predictor of MBSR treatment outcomes. We employed a hierarchical linear regression model to determine if a significant baseline predictor of post-MBSR response was no longer significant when average meditation practice was entered into the model. After removing variance in post-MBSR depressive symptoms related to baseline depressive symptoms, we found that average weekly practice accounted for a significant amount of the variance in post-MBSR depressive symptoms ( $R^2$  change = 0.16, F[2, 24] = 4.10, p < 0.05). While formal practice was not a significant predictor (p > 0.2), informal practice alone did significantly predict improvement in depressive symptoms ( $\beta = -0.30$ , t = -2.06, p < 0.05). Thus, after accounting for depression at baseline, we found that informal practice predicted improvement in depressive symptoms in adults.

The same analysis applied to the cognitive control component of the Attention Network Task indicated that neither overall amount of mindfulness practice nor informal practice significantly predicted post-MBSR cognitive control of attention (overall p > 0.09, informal only p > 0.15). However, formal practice, did significantly explain a significant amount of variance in post-MBSR cognitive control of attention, after accounting for baseline cognitive control ( $\beta = 0.44$ , t = 2.16, p < 0.05). These data suggest that participants who did more formal guided practice showed greater improvements in their ability to control their attention.

Considered together, these preliminary results suggest that following completion of mindfulness training, children and their parents may demonstrate beneficial changes in attention, mood, and metacognitive domains (compassion and mindfulness), and that considering the effects of formal and informal practice on different treatment outcome variables may be helpful in understanding components and mechanisms of mindfulness practice.

# Teaching Mindfulness to Children and Their Parents Simultaneously

Our ongoing research—both the quantitative data, reported above, and our qualitative experience working with families—indicates that this mindfulness curriculum benefits children and their parents. We modified the standard adult MBSR curriculum in several ways to facilitate working with children and their parents. First, for home practice, we asked the parents to choose mindful activities that involved their children—for example, kissing them good-bye in the morning, greeting them after school, and tucking them in at night.

With a large group, the majority of the discussion is focused on the children. Often if the kids are wiggly and need to do some movement, we will take them outside for a movement practice and leave the parents with a discussion question such as "What subtle feelings did you notice over the week?" During the last fifteen minutes of class, parents are given time to ask questions and have adult discussion, while the children draw pictures of their experience of the Still Quiet Place, write haiku or other poems, play outside, or play games that engage mindfulness, such as pick up sticks and Jenga (a game where blocks are placed in a stack and each player in turn pulls a block from anywhere in the stack and places the block on the top of the stack, with the object being not to topple the stack). Parents really appreciate this time to explore how they can apply the principles of mindfulness to their parenting. They often want to stay well past the end of class and the end of their children's willingness to stay.

Perhaps the most challenging aspect of working with children and parents together is that the parents often have an agenda. Frequently parents have brought their child to our MBSR class seeking the exact benefits we are documenting in our research; thus they can get quite attached to the outcome. In the first course for the child-parent study, one mother asked, "What if my child doesn't want to come?" Implicit in how she asked the question was her hope that we would "make" her child come. This particular course was in the context of a research study, and research doesn't like dropouts. However, our response in the moment was "Mindfulness is about accepting what is so, and not about forcing anything; thus it is antithetical to the practice to force someone to participate."

Her question prompted us to ask for suggestions from both children and parents about the class format. The children suggested more movement and less talk. As a group, we agreed that the suggestions would be incorporated into the upcoming classes, that the children who felt they did not want to continue would attend two more sessions, and if at that point they no longer wished to participate, they would stop coming to class.

In the ensuing discussion with just the parents, we shared the following thoughts:

As parents, our practice is to notice when we want our children to be other than they are, when we have an agenda, and when we are trying to fix or change them. There is a distinction between forcing and

supporting. Once we realize our true intentions, we can choose a skillful path. Perhaps living mindfully, being present with and responsive to our children moment by moment, is more important than getting them to practice mindfulness.

- The first two sessions provided children with an experience of the Still Quiet Place and the basic vocabulary of mindfulness. Before starting the course, the children did not know that they had a Still Quiet Place inside. This new knowing is a meaningful learning experience in and of itself, and perhaps it is enough for now.
- Introducing mindfulness to children and parents is like planting seeds, and seeds germinate in their own time. A child who is uninterested in mindfulness now may choose to use apply what has been learned in six weeks; before an important test, game, or performance; during a particularly difficult time in college; or not at all.

In closing, we reminded parents that although they may have enrolled in the mindfulness class "for Susie or Patrick," their children would benefit if the parents developed their own practice. In fact, research from Dr. Georgia Watkins at Mount Sinai School of Medicine has shown that the greatest source of children's stress is not academic stress, peer pressure, or overscheduling, but rather parental stress. Thus, if parents practice mindfulness and reduce their stress, they may simultaneously reduce their children's stress and provide a living demonstration of mindfulness. These comments helped the parents remember that in the initial session many of them had acknowledged that they were taking the mindfulness course not only for their child, but also to cultivate patience, kindness, clarity, gentleness, and wisdom within themselves.

# Teaching Mindfulness in the Classroom

Some innocent missteps have taught us that when bringing MBSR into a school setting, it is essential to clearly convey the secular and universal nature of mindfulness and to be proactive in eliciting support of the school administration, teachers, and parents. One or two confused or frightened parents can end a program, or an unreceptive teacher can severely impact the children's experience. Here is a brief example:

With the full support of the head of the school and the assistant head, Amy offered a mindfulness course to the two fifth-grade classes on an every-otherweek basis. Both fifth-grade teachers were new to teaching fifth grade and were working with new curricula. The experience in the two classrooms was entirely different. In the first room, the teacher intuitively got the practice and said, "I did something similar as a child; I just didn't have a name for it." In the second room, the teacher's response was much cooler, and it wasn't until midyear that

she verbalized her feelings. While Amy had sensed her feelings, she certainly had not understood their depth. The second teacher said she resented Amy being in the room, she felt mindfulness had been inserted into her curriculum, and she wanted those forty minutes to teach. She also felt that the school as a whole was overly focused on communication and children's stress. She said that when she was young, children just dealt with stress, and that the school was making "too big a deal out of it." This may well have explained the different outcomes in the two rooms. In the first room, a majority of the children enjoyed mindfulness and found it beneficial. In the second room, many children did not enjoy mindfulness or find it beneficial, or if they did, they were reluctant to say so in the presence of their teacher.

If you are exploring the possibility of bringing mindfulness into a school setting, you may have connections with one or more individuals. However, if you want the children to have the greatest chance of reaping the benefits of mindfulness practice and for the program to flourish, be sure to create an opportunity for school administrators, classroom teachers, and parents to experience mindfulness practice and ask questions so misconceptions do not arise and gain momentum.

#### Conclusion

Our experience and data suggest that children and their parents may benefit from an eight-week curriculum in mindfulness-based stress reduction in ways that are both measurable and meaningful. We continue to measure outcomes from baseline to post-treatment for families taking the MBSR course and those not taking the course. Our findings to date support the usefulness of MBSR and indicate significant improvements both in scientific terms and also in terms of meaningful outcomes in the daily lives of children, parents, and teachers. Our experience suggests a profound difference both at home and in the classroom when a child is more able to control his or her attention and is less emotionally reactive. The impact on the social relations and learning environment cannot be underestimated. Perhaps most importantly, the MBSR course appears to be meaningful for both children and their parents. In closing, we will let the children speak for themselves. At the end of each MBSR course, we ask participants to write a brief note to a friend who knows nothing about mindfulness describing how it feels to rest in the Still Quiet Place, and how he or she uses mindfulness in daily life. The comments below are taken verbatim from the children's notes, misspellings and all:

- Dear Invisible Bob: Resting in the Still Quiet Place is very relaxing. It helps you get in touch with your inner self. And find out how you are actually feeling.
- Dear Keith: I am doing this thing called mindfulness. It is a way of understanding and being aware of feelings. One thing you do is go to the

- Still Quiet Place. It feels relaxing to be there. Mindfulness has helped me before homework because it relaxes me so I do a good job with my homework.
- It feels sort of strange but peaceful. I can't really tell how I use mindfulness at home, but I do know it helps me when I am mad at my brother.
- Mindfulness is a great class because you can chill out, and relax. It will cool you down and make you less stressed. You should try it if you are mad or sad or just want to feel better. That's what I do. Try it!
- Still quiet place has given me a lot of stress relief. I use mindfulness when I'm upset or stressed out. Mindfulness Rocks! Thank you Dr. Saltzman for introducing this wonderful program to me.
- Dear Friend: Mindfulness is a class I am taking at school. It is a time when we breathe and think about our thoughts, about NOW, not the past or the future. When we settle in breathing we go to our "still quiet place." It feels calming in the "still quiet place." I use mindfulness when I am nervous about something.

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