Mindfulness IN THE Classroom

Strategies for Promoting Concentration, Compassion, and Calm

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Preface

Thirty years ago I took an eight-week class in mindfulness meditation from clinical psychologist Jack Kornfield, author of several best-selling books on mindfulness. At the time, I was in the midst of a major depressive episode and sought assistance from this practice in combatting my mood disorder. After a few weeks of meditating, my depression gradually began to lift (research 15 years later would support the use of mindfulness meditation in effectively treating depressive illnesses like mine). Years later, as my practice became more sporadic, I had a relapse of my depression, and this time I was more careful and made sure to do at least 30 minutes of mindfulness practice each day. That was almost 10 years ago, and since then I've been depression free. I plan to practice mindfulness every day for the rest of my life.

Since that time, mindfulness has taken off as a popular method of personal and professional transformation. Thousands of studies conducted throughout the past 20 years have demonstrated the effectiveness of mindfulness in treating a wide range of disorders, including depression, anxiety, post-traumatic stress disorder, eating disorders, chronic pain, and even psychosis.

More recently the focus has turned to schools and well-designed randomized controlled studies are highlighting the value of mindfulness practices in improving students' executive functioning, bolstering

working memory, supporting social and emotional development, and reducing stress levels. Although the scientific study of mindfulness in the schools is still in its infancy, with several long-term studies in progress, there now is growing evidence supporting the use of mindfulness to enhance concentration, compassion, and calm in the classroom. See Appendix A for a useful glossary of neuroscience terms.

As I did the research for this book, I encountered the word *mindfulness* used in reference to a wide collection of interventions including mood lighting, relaxation strategies, jumping on a trampoline, stress-reducing coloring books, guided visualizations, chanting, and other body-mind activities. None of these are true examples of mindfulness—at least in the way that I'll be using the term in this book. I also encountered confusion of the word *mindfulness* with the ideas of Harvard professor Ellen Langer (2014), who uses it in reference to thinking "outside of the box."

In this book, I'll be using the word *mindfulness* in a very precise way. Mindfulness, simply put, is *the intentional focus of one's attention on the present moment in a nonjudgmental way.* The concept of mindfulness has roots in Buddhism, especially Theravada Buddhism, which is predominant in Southeast Asia. However, my own reference point for the *secular* foundation of mindfulness comes from the work of biologist Jon Kabat-Zinn (2013). In the 1970s at the University of Massachusetts Medical School, Kabat-Zinn developed a method for treating chronic pain and stress through an eight-week course that he referred to as Mindfulness-Based Stress Reduction (MBSR). The vast majority of scientific studies on mindfulness over the past two decades have been based on this program and a related one called Mindfulness-Based Cognitive Therapy (MBCT), which combines mindfulness experiences with standard cognitive-behavioral therapy. Although the application of mindfulness to the schools, and to students at different ages, requires many significant changes, adaptations, and modifications (these will be discussed in Chapter 6), many of the activities that I write about (especially those described in Chapter 3) owe their origins to Kabat-Zinn's MBSR program and to my own experiences practicing mindfulness over the past 30 years.

students, leading to greater levels of social, emotional, and cognitive competence. As I point out in the first chapter, we've never experienced times as stressful as they are now, and mindfulness has emerged just in the nick of time to offer students relief and greater levels of resilience in dealing with the pressures associated with this fast-paced, technology-ridden culture of ours. Happy reading, and may all of your moments be mindful ones!

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Joining the Quiet Revolution

An epidemic is sweeping through our classrooms today. Not connected to a virus, bacteria, or any other pathogen, the malady is stress. Our students are experiencing stress at levels never before seen in the history of U.S. education. The statistics are alarming. Here are a few of them:

- One in 10 preschoolers has had suicidal thoughts (Whalen, Dixon-Gordon, Belden, Barch, & Luby, 2015).
- Doctors are increasingly reporting children in early elementary school suffering from migraine headaches and ulcers, and many physicians see a clear connection to pressure related to school performance (Abeles, 2016).
- A third of our adolescents report feeling depressed or overwhelmed because of stress, and their single biggest source of stress is school (American Psychological Association, 2014).
- Roughly 1 in 4 girls and 1 in 10 boys in U.S. high schools try to harm themselves even when they are not attempting suicide (Monto, McRee, & Deryck, 2018).
- In a Yale University survey of more than 22,000 high school students, teens reported feeling stressed 80 percent of the time in school (Brackett, 2016).
- By age 21, according to one longitudinal study, 82.5 percent of our students will have met the criteria for at least one psychiatric

disorder (Copeland, Shanahan, Costello, & Angold, 2011). (No, this is not a misprint.)

Student stress occurs at all levels of the socioeconomic pyramid. Dale Caldwell, former head of school at the Village Charter School in Trenton, New Jersey, uses the phrase "urban traumatic stress disorder" to describe the problem among those living in poverty. A consultant at the school, Trish Miele, talks about the anxiety that plagues these inner-city students: "So much of their life is living on the edge of stress. . . . It could be food insufficiency, it could be general safety, not having a home, it could be abusive. . . . So many things are coming at them in the urban environment" (Buffum, 2017). On the other end of the economic spectrum, students are under tremendous pressure to perform academically. Reflecting on her experience teaching 3rd grade in the wealthy West Windsor–Plainsboro public school district for 10 years, Miele comments, "The district is very high-achieving. . . . I would have kids coming to me when we started doing testing, [saying], 'If I don't do well, I won't get into Princeton!' And I'm like, 'You're eight. What are you worrying about?'" (Buffum, 2017).

The Mindful Solution to Stress

Fortunately, schools are beginning to respond to this epidemic of stress. One intervention that has received a great deal of attention over the past few years is mindfulness: the nonjudgmental awareness of each present moment in time. Although rooted in a thousand-year-old Buddhist tradition, mindfulness was given a solid secular foundation in science through the efforts of biologist Jon Kabat-Zinn, founder of the Stress Reduction Clinic at the University of Massachusetts Medical Center. He created a stress-reduction and chronic pain management program in the early 1970s based upon mindfulness (Kabat-Zinn, 2013). Since that time, more than 3,000 scientific studies have addressed the topic of mindfulness (Regents of the University of California, 2014). These studies have demonstrated the effectiveness of mindfulness practice in treating chronic pain (Garland et al., 2017); high blood pressure (Palta et al., 2012); immune function (Davidson et

al., 2003); anxiety (Vøllestad, Sivertsen, & Nielsen, 2011); depression (Kuyken et al., 2008); post-traumatic stress disorder (Possemato et al., 2016); eating disorders (Katterman, Kleinman, Hood, Nackers, & Corsica, 2014); psychosis (Aust & Bradshaw, 2017); substance abuse (Bowen et al., 2014); and a host of other mental and physical ills.

Mindfulness in Popular Culture

As a result of such a strong evidence base, mindfulness has entered popular culture in the United States (as well as in the United Kingdom and Australia). The mindfulness and meditation industry has become a one-billion-dollar-a-year business (Wieczner, 2016). Close to 80 percent of all medical schools in the United States offer some aspect of mindfulness training in their programs (Barnes, Hattan, Black, & Schuman-Olivier, 2017). The National Health Service in the U.K. lists mindfulness as one of its five steps to mental well-being (National Health Service, 2016). Chris Ruane, a member of the British Parliament, has set up a mindfulness training group for its MPs (Booth, 2017), and U.S. Representative Tim Ryan of Ohio has authored a book on mindfulness (Ryan, 2012) and promoted its widespread use among the American electorate.

These examples are just part of the mindfulness revolution. In addition, the U.S. Army has instituted a mindfulness program—Mindfulness-Based Mind Fitness Training (MMFT, pronounced "M-fit")—to improve mental performance and bolster the emotional health of soldiers under the stress and strain of war (Myers, 2015). The National Basketball Association (NBA) has teamed up with Headspace, a leading mindfulness app, to provide mindfulness training to all league and team staff and family members (NBA Communications, 2018). Mindfulness training is used in several Fortune 500 companies, such as Nike, General Mills, Goldman Sachs, Google, and Apple (Levin, 2017). Even *Sesame Street* is using mindfulness principles. In one video created by the Children's Television Workshop, the Count teaches Cookie Monster how to concentrate on his breathing to reduce stress (to watch it, go to https://sesamestreetincommunities.org/activities/count-breathe-relax/).

The Growth of School-Based Mindfulness Programs

The first major effort to use mindfulness in the schools began in the United Kingdom in 2007 with a series of uniform lesson plans delivered in classrooms across the country (Davis, 2015). Over the past decade, several other programs have emerged to deliver mindfulness training in classrooms around the world. They include Mindful Schools, MindUP, Calm Classroom, Inner Explorer, Master Mind, Moment, A Still Quiet Place, Mindful Schools, the Attention Academy, Inward Bound Mindfulness Education, and Learning to Breathe (see Appendix B for contact information on these and other mindfulness programs). MindUP reports reaching over 500,000 students around the world in the past decade, and Mindful Schools says it has reached over 300,000 students in the United States in the past five years (Strauss, 2016).

Although alike in embracing mindfulness, these programs vary considerably. Some offer discrete training classes, whereas others use whole-school or even districtwide immersion models. Program duration runs from four weeks to several years. Some use external facilitators to teach mindfulness, others train a school's teachers to provide these lessons, and still others use no facilitators at all, relying upon audio and video recordings to guide mindfulness sessions. Evaluations of these programs reveal successful implementation, high recruitment and retention rates, positive qualitative feedback from teachers and students, broad program dissemination, and long-term sustainability (Semple, Droutman, & Reid, 2017).

What the Research Says About Mindfulness

A number of school-related research projects are currently underway to gauge the long-term effectiveness of mindfulness training in students. The Jefferson County Public Schools in Louisville, Kentucky, has partnered with the University of Virginia to implement the Compassionate Schools Project, a seven-year, $12 million research project based on

mindfulness principles (Marshall, 2017). In the United Kingdom, the University of Oxford has teamed up with University College London and the Medical Research Council in another seven-year project to study the application of mindfulness practice with adolescents in the schools, at a cost of $7.5 million (Mundasad, 2015). In Chicago, the Erikson Institute, a developmentally based graduate school, has been given $3 million by the U.S. Department of Education to study the effectiveness of mindfulness at 30 high-poverty schools encompassing more than 2,000 students in kindergarten through 2nd grade (DeRuy, 2016).

Along with these longitudinal programs, there's been a tsunami of short-term studies on using mindfulness in the schools. These have offered preliminary evidence of the effectiveness of mindfulness with respect to a wide range of important skills necessary for school success, including

- Executive functioning (Flook et al., 2010).
- Sustained attention (Gu, Xu, & Zhu, 2018).
- Working memory (Quach, Jastrowski Mano, & Alexander, 2016).
- Social and emotional development (Schonert-Reichl & Lawlor, 2010).
- Improved math performance (Schonert-Reichl et al., 2015).
- Self-regulation (Viglas & Perlman, 2018).

Interestingly, two of these studies (Flook et al., 2010; Viglas & Perlman, 2018) indicated that mindfulness practices were especially effective with students who had difficulties with executive functioning or self-regulation. Similarly, mindfulness appears to be very effective on a number of levels for low-income minority students in urban settings. One randomized controlled study, for example, published in the prestigious journal *Pediatrics*, showed improvements in urban, at-risk middle school students with respect to somatization (having medical symptoms without any known cause), depression, negative affect, negative coping, rumination, self-hostility, and post-traumatic symptom severity (Sibinga, Webb, Ghazarian, & Ellen, 2016).

There is also emerging research suggesting that mindfulness practices benefit students with special needs. One study of adolescents with autism who went through nine weeks of mindfulness training saw decreases in rumination, as well as improved social responsiveness, social communication, social cognition, and social motivation (de Bruin, Blom, Smit, van Steensel, & Bögels, 2015). A review of several recent studies concluded that mindfulness may prove to be a novel psychosocial intervention for students with ADHD (Cassone, 2015). Mindfulness has shown effectiveness with a group of adolescent psychiatric outpatients displaying a heterogeneous mix of emotional and behavioral disorders. Those students engaged with Mindfulness-Based Stress Reduction (MBSR) self-reported reduced symptoms of anxiety, depression, and somatic distress, and increased self-esteem and sleep quality. Of clinical significance, the MBSR group showed a higher percentage of diagnostic improvement over the course of the five-month program (Biegel, Brown, Shapiro, & Schubert, 2009). A study of students with intellectual disabilities showed that mindfulness practice led to improved task performance and reduced task avoidance (Kim & Kwon, 2018).

As of 2019, there have been three separate meta-analyses of the existing literature on mindfulness in the schools. Although meta-analyses can produce watered-down data due to differences among the studies analyzed, they can also be useful in determining the overall effectiveness of an intervention across a wide range of studies (see Ahn, Ames, & Myers, 2012, for a discussion of strengths and weaknesses of meta-analyses in educational research). In the first meta-analysis, which included 19 studies using control groups (Zenner, Herrnleben-Kurz, & Walach, 2014), overall effect sizes within and between groups was .40 and .41 respectively (using Hedges' g, a measure of effect size). An effect size of .40 is considered to be within the range of desired intervention effects, according to Hattie (2008). The meta-analysis also looked at specific components of desired effects and found a large effect size (.80) in cognitive performance among students in mindfulness studies.

A second meta-analysis (Maynard, Solis, Miller, & Brendel, 2017) demonstrated a small, statistically significant positive effect on