

Stress and anxiety in the educational setting is an issue for many students and educators. For students, pressure to perform well in school is a result from a need for perfection; students may be faced with parental expectations to achieve good grades, the weight of trying to balance athletic and academic responsibilities, and heavy or rigorous course loads. Additionally, students may face stress and anxiety trying to navigate complex social relationships with their peers (Brown, 2013). Just as their student's battle with stress, teachers and those working in education are often contending with the stressors relating to student behavioral issues, limited resources in the classroom, juggling deadlines, and "teaching to the test," which refers to curriculums that are focused primarily on preparing students to pass standardized tests (Turner, 2016).

Several studies have examined psychological maladjustment and the positive benefits of secular mindfulness on health and wellbeing. As a result, many schools have integrated mindfulness programs to help combat the common pressures that students and educators experience. The Webster's Dictionary describes mindfulness as "the practice of maintaining a nonjudgmental state of heightened or complete awareness of one's thoughts, emotions, or experiences on a moment-to-moment basis." Typically, mindfulness practices consist of directing attention to a specific focus or "anchor", such as a breath, a sensation, a feeling. Mindfulness program can and often use various breathing techniques, meditation, stretching and muscle relaxation exercises, such as yoga and tai chi, and can be practiced sitting, lying down, standing, or moving with the intent of intentionally attending to thoughts, feelings, body sensations, and sensory experiences as they arise moment to moment (Meiklejohn et al., 2012, p. 2)

Mindfulness programs are said to help individuals build skills in attention regulation, emotional self-regulation, social-emotional learning, stress management, and much more

(Meiklejohn et al., 2012, p. 2-3) While the benefits of incorporating mindfulness programs in the school system may seem intuitive to some, across the United States and elsewhere, there has been resistance to mindfulness programs for various reasons. Lack of research and reduction of time being dedicated to traditional curriculum are cited and specifically, in the United States, the incorporation of mindfulness into the classroom is viewed as a violation of the separation of church and state because of its roots in Eastern religion.

The incorporation of alternative learning programs, such as mindfulness should be integrated in the educational system as the overall body of literature demonstrates the many benefits that mindfulness can have on individuals. Mindfulness practices have already been integrated into many professional fields in the past decade. The healthcare field, psychology, businesses, and even the military have incorporated mindfulness trainings for their employees and have been able to demonstrate measurable benefits from incorporating mindfulness practices (Meiklejohn et al., 2012, p. 3). Several studies have supported health benefits for adults who have undergone mindfulness training. One such study conducted by the Psychiatric Neuroimaging Research Program of Massachusetts General Hospital documented changes of brain's grey matter over an 8-week period where participants spent an average of 27 minutes a day practicing mindfulness exercises. In this study, neuro-imaging showed increased grey matter density in the hippocampus, a region central to learning and memory and decreased density in the amygdala region, which is known to regulate human stress response, was further recorded. During this study, participants reported feeling a reduction in stress which correlated with brain images produced (Hölzel et al. 2011).

In another study, the Ontario Institute for Studies in Education of the University of Toronto created a mindfulness-based program targeting teachers, in an effort to respond to

reports of teacher stress and burnout. Named the MBWE program, the curriculum focused on mindfulness to discover various factors of wellness and instruction strategies. The first measured 2-year study revealed increased mindfulness and teaching self-efficacy among MBWE participants compared to the control group. Additionally, the improvements in mindfulness predicted improved teaching self-efficacy and physical health ratings immediately after training (Poulin et al. 2008; Poulin 2009).

While there is an extensive body of research regarding the positive benefits of mindfulness on adults, others argue that mindfulness research involving children and youth is not as extensive as the research conducted on adults. Studies of mindfulness done with children have been cited as having methodological limitations, such as small sample size and limited use of control groups or randomization, therefore producing slanted data. Willem Kuyken, a professor of clinical psychology at Oxford University and director of the Oxford Mindfulness Centre has advised about the adoption of mindfulness in schools in the United Kingdom. "There's a lot of enthusiasm [about] mindfulness and we think that the enthusiasm may be ahead of the research," professor Kuyken communicated to Times Education Supplement (Turner, 2017). Even within mindfulness research community, researchers acknowledge the limitations of work. In their review of the mindfulness research with children, Schonert-Reichl and Lawlor cite many other studies where the research has been conducted with special or clinical populations of children and the research itself has not focused on the cultivation of positive emotions but instead have focused exclusively on reductions of symptoms of anxiety and depression (p. 3-4).

While it can be argued that mindfulness should not be incorporated into the educational system because of the lack of research on children, the existing body of literature does support

the positive benefits of mindfulness has on the reduction of symptoms associated with poor psychological adjustment. Meiklejohn et al. (2012) have completed an extensive review of current research on mindfulness instruction for children and youth in school and clinical settings. All the studies they reviewed use secular mindfulness-based programs that have been published in peer-reviewed journals and have a minimum of five participants. In one study, Napoli et al. (2005) designed a randomized control trial using the Attention Academy Program (AAP) on 194 first to third grade students from nine classrooms in two elementary schools. In the study, students were randomly assigned to attend AAP or no intervention. The AAP sessions were 45-minutes in length and included sitting, movement, and body scan meditations along with relaxation exercises. There were 12 sessions over 24 weeks. At the end of the study, AAP students showed reductions in test anxiety and improvements in teacher-rated attention, social skills, and objective measures of selective attention compared to the control students. Other studies, such as Wall (2005) used sitting meditation and mindful eating with Tai Chi on 11 public school children, ages 11-13. At the end of the study, students self-reported feeling calmer, less reactive, relaxed, and improved sleep. Semple et al. (2009), conducted a 12-week study using 25 children, ages 9 to 12 years who were enrolled in a clinic-based remedial reading program. Students were assigned to Mindfulness Based Cognitive Therapy or a wait-list control group. Compared with controls, who had not yet participated in the program, the participants who had completed the Mindfulness Based Cognitive Therapy had significant reductions in parent-rated attention problems. In another study, a randomized control trial was conducted by Flook et al. (2010) where an 8-week program of mindful awareness practices (MAPs) was completed with 64 second and third grade children who averaged 8.23 years in age. The children were randomly sorted to MAPs or waitlist control group, like the Semple et al. (2009) study. The

primary outcomes of interest were teacher- and parent rated executive functions (i.e., cognitively based skills to manage oneself and one's resources). Although there was not an overall group effect, children with weaker initial executive functions who were exposed to the MAPs training showed significantly improved overall executive functions following training, as well as specific capacities such as attention shifting, monitoring, and initiating, compared with the wait-list control group. Lastly, in a study looking at older adolescents, Broderick and Metz (2009) created a non-randomized pilot trial of 137 female high school students using a six-session Learning to BREATHE program. The study revealed that the 120 seniors who participated in the Learning to BREATHE program self-reported reductions in negative affect, tiredness, aches and pains, and increases in emotional regulation, calmness, relaxation, and self-acceptance compared to the control group of 17 high school juniors (Meiklejohn et al., 2012, p. 6-8) While the cited studies provide a snapshot of mindfulness research and literature, preliminary data and antidotal evidence suggests benefits are to be gained for those who do engage in mindfulness practices. Despite that existing research does not yet support the growth in positive emotions from mindfulness, this should merely be viewed as a limitation and not a reason to exclude mindfulness-based program integration into schools.

In addition to lack of research, a subjective argument raised by others who oppose mindfulness is that the addition of mindfulness programs in the educational setting detract from traditional curriculum. Recently, Illinois has become one of the first states to require social-emotional learning in its schools. In 2016, Chicago Public Schools began implementing mindfulness techniques into two schools, with 14 schools serving as controls. Amanda Moreno, Assistant Professor at the Erkison Institute is serving as principal investigator for the multi-year intervention. According to Moreno, the Chicago Public Schools are using three-minute long

mindfulness exercises developed by Calm Classroom and lead by teachers three times per day. Students also participate in 25 group-based lessons throughout the school year, where they learn new vocabulary that integrates mindfulness concepts into academics. Like many other school districts, teachers in Chicago Public Schools are among many who have sought additional instructional time in their school days. Moreno has found the mindfulness techniques don't take away from math or reading lessons and anecdotal evidence suggests that teachers are spending less time, as little as three minutes, with a mindfulness exercise to get students back on task after lunch and recess. So far, evidence is suggesting that mindfulness is actually creating more time for instruction (Garcia Mathewson, 2016).

Lastly, one of the biggest arguments against mindfulness is that it violates the separation of church and state because of its roots in Eastern religions. The term "separation of church and state" refers to the First Amendment of the United States Constitution. In the First Amendment, the Establishment Clause and Free Exercise Clause, prohibits the government from making any law respecting an establishment of religion and reserves the right of American citizens to accept any religious belief (Legal Information Institute, n.d.). While mindfulness is based in Buddhist tradition, the mindfulness practices (such as breathing techniques, meditation, stretching and muscle relaxation exercises) used in school programs are based on mindfulness-based cognitive behavioral programs that were first developed during the 1970s to help with stress reduction. These techniques are secular in nature and do not involve any ritual (Cullen, 2011, p. 3-4). Despite being adapted and being practiced without any religious component, many still believe that mindfulness based programs are violating the First Amendment. As recently as 2013, Judge John S. Meyer ruled in favor of the Encinitas School District's yoga program in *Sedlock Et Al. v. Baird Et Al.* In this case, Judge Meyer ruled in favor of the school district, citing *Lemon v.*

Kurtzman (1971), a case that gauged the constitutionality of government funding for a private Catholic school, Meyer applied the “Lemon” test and found that the yoga course “has a secular purpose,” that “neither advances nor inhibits religion,” and does not represent “excessive government entanglement” with religion (Mind and Life Featured Stories, 2014).

Although some feel that the evidence of mindfulness programs is limited based on the current body of research, preliminary research suggests that mindfulness programs are effectively giving teachers and children tools that will help them balance their emotional behaviors and reduce negative physical and psychological symptoms associated with burnout. As suggested by the Chicago Public School initiative to introduce mindfulness programs into the education curriculum, the practice in the classroom has proved to not be disruptive and in contrary, suggests that integration of mindfulness has actually helped to keep students on task. Furthermore, due to the proliferation of mindfulness practices in Cognitive Behavioral Therapy, Mindfulness programs have become secularized, removing any religion or prayer that tied it to Buddhism. Recent court rulings, supports this such as *Sedlock Et Al. v. Baird Et Al.* where it was determined that a school-based yoga program “neither advances or inhibits religion.” Based on the information available, it can be concluded that there is enough evidence to suggest that school-based mindfulness programs are far more likely to benefit teachers and students than to harm them.

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