

**An Examination of the Implicit Need for the Equitable Application of
Mindfulness Interventions with Special Education Students**

Anna Falcone

Purchase College

Abstract

Mindfulness interventions hold tremendous potential for benefits to students in K-12 classrooms. Psychological and educational professionals are enthusiastic about the practice. As a result, there is a seemingly inexhaustible number of mindfulness techniques and practitioners readily available for implementation in school settings. Special education students with IEP's arguably have the greatest need for such interventions due to the comorbid maladaptive behaviors that these students often exhibit. In this paper, I analyze a sample of 10 mindfulness organization websites examining their claims, applications, and attention given to special education needs. In this content analysis I observed a gap between the excitement for mindfulness interventions and the equitable application of these interventions to special education students.

Introduction

A few years ago, both of my children were diagnosed with Attention Deficit Hyperactivity Disorder (ADHD from here on) and, with the prompting of their doctor, I was encouraged to be tested for the same at the age of 46. I scored a 35 on a 1-36 scale on the prescribed test, was formally diagnosed with ADHD, and began treatment. In a matter of weeks, all of my past educational challenges became clear. I realized that I am not lazy or unintelligent, as I was labeled by teachers and institutions that I had attended decades earlier, but that I neurologically process information differently and need medical treatment to help me focus productively on tasks at hand. Within 6 months of starting treatment I embarked on a new career and enrolled at SUNY Purchase to complete a bachelor's degree which I had started 30 years earlier.

It was at Purchase that I first encountered the concept of mindfulness in a psychology class. I watched the assigned videos and read the assigned articles. Intrigued by the possible benefits, I began to practice mindful meditation several times a week. I experienced the post-meditative benefits, but found the practice of the techniques very challenging. In casual conversations with my children, I discovered that their schools had been conducting yearly mindfulness assemblies throughout their middle-school years. These assemblies differed greatly from one to the other with different presenters and varied techniques being demonstrated each time. My children expressed a deep annoyance with these presentations finding them simultaneously boring and agitating. In subsequent conversations, I discovered that there were specific aspects of mindfulness techniques for which we shared discomfort. I speculated that there must be something about the inherent differences of our neurological processing that made the techniques such as concentrating on our breathing so challenging for us. It was at this point

that I began to wonder if mindfulness techniques could or should be modified for people with ADHD.

After graduation from Purchase, it is my intention to pursue a master's degree in Early Childhood Special Education and to become a Certified Special Education Teacher. As a step towards this goal, I gained employment in a public-school kindergarten inclusion classroom as a NYS Certified Teaching Assistant this past September. The student population of this classroom is 40% special education and 60% general education. The special education students have varying individualized educational plans (IEP's from here on). The purpose of an IEP is to ensure an equitable education for these students. "Equity goes beyond equality: It means that all students must be given the real possibility of an equality of outcomes" (Nieto & Bode, 2018). IEP's provide the opportunity for success to students who have, in generations passed, fallen through the cracks of the K-12 education system. IEP's are provided to students who have been documented by testing to have educational needs that cannot be fulfilled by the general education practices and materials. Many of these students have specific diagnoses such as ADHD or Autism Spectrum Disorder (ASD from here on). Common examples of what might be in an IEP are for a teacher to check for understanding or provide a student with smaller steps towards academic goals. Often, IEP's include different techniques for teaching or the provision of alternate teaching materials conveying the same lessons as the general education materials.

Part of the daily routine in the classroom where I work is age-appropriate mindfulness exercises after recess. These are presented on a smartboard in video format. As I observe these kindergarten students to whom these videos are presented, I recognize frustration and resistance in the children with IEP's. Emerging research suggests that mindfulness interventions are beneficial particularly in early childhood education, especially for those students with learning

disabilities. However, it is difficult, if not impossible at times, for some of these students to comply with the mindfulness exercises. After multiple disruptive outbursts that prevented other students from participating, the most resistant students were permitted to play video games on the class iPads while the other students were practicing mindfulness techniques.

Mindfulness has been shown to increase self-regulation, promote social behavior, and reduce hyperactivity in young children (Viglas & Perman, 2017). However, many of the programs that are being presented to school aged children vary in consistency and are being presented to groups of students who may be at very different stages of social emotional development. I believe the practical application of mindfulness intervention would benefit from practitioners and educators examining the following question: What are the implicit challenges of presenting a generic mindfulness intervention to school aged children of varying social emotional functionality levels?

Literature Review

Introduction - The Potential Benefits of Mindfulness Based Interventions in Schools

The emerging practice of mindfulness intervention in schools holds tremendous promise for the optimization of student learning potential. Stress experienced in school settings can negatively affect academic performance, if students are not able to manage their stress (Fuchs et al, 2017). Children who are skillful at attentional flexibility can continue to learn even when struggling with negative emotions (McClelland & Cameron, 2011). Schools are uniquely positioned to provide developmental support, including stress reduction techniques, by virtue of their central position in students' lives (Emerson et al, 2017; Fuchs et al, 2017). Mindfulness interventions in schools have been linked with student stress reduction (Fuchs et al, 2017), improved executive function (Emerson et al 2017; Thierry et al, 2016; Flook et al, 2015) and improved self-regulation skills (Thierry et al, 2016). The validity and promise of mindfulness intervention are additionally supported by the fact that the American Psychological Association has incorporated aspects of mindfulness into the implementation of both clinical and counseling psychology (Felver et al 2013). Enthusiasm is further encouraged by evidence suggesting that students who have the most need of intervention gain proportionally more benefits than their more typically developing classmates (Viglas & Perlman, 2017).

Diversity of Student Functionality and Learning Styles

Students of multiple abilities and varying stages of development are often placed together in the same classrooms with specified accommodations in place to facilitate an equitable learning environment. Since 1975, the rights of an equitable education for students with physical and learning disabilities has been enforced by the Individuals with Disabilities Education Act (IDEA). As of the 2017-2018 school year, 14 percent of total public-school enrollment were

served by IDEA and received special education as a result. (National Center for Education Statistics, 2019). Students with learning disabilities often have comorbid symptoms of oppositional disorders, ADHD, or depression (Malboeuf-Hurtubise et al, 2016). There are correlations between reduced self-regulation skills and maladaptive behavior. Mindfulness in school environments is a potential tool for enhancing already developing self-regulation skills (Viglas & Perlman, 2017).

The State of Mindfulness Interventions Research in Schools

The incorporation of Mindfulness techniques into schools is not as simple as one might imagine. There is a lack of research regarding specific populations of students and the effectiveness of school-based mindfulness in these populations (Thierry et al, 2016). Additionally, much of the existing research is lacking in randomized controls and relies heavily on self-reporting. This calls into question the reliability of study results (Flook et al, 2015; Malboeuf-Hurtubise et al, 2016; Viglas & Perlman, 2017; Fuchs, Mundschenk, & Groark, 2017; Eklund, O'Malley & Meyer, 2016; Semple, Droutman, & Reid, 2016; Rix & Bernay, 2015; Felver et al, 2013; Greenberg & Harris, 2011). Needs have been identified for blind controls (Viglas & Perlman, 2017; Fuchs, Mundschenk, & Groark, 2017; Semple, Droutman, & Reid, 2016; Rix & Bernay, 2015), agreed upon measurements (Eklund, O'Malley & Meyer, 2016), and studies designed specifically for inclusion classroom populations (Malboeuf-Hurtubise et al, 2016).

Enthusiasm and Pragmatic Implementation

Well-meaning educators and caregivers are eager to utilize programs that claim to promote mindfulness in an effort to enhance their students' potentials. The excitement and marketing of mindfulness programs for schools has outpaced the empirical scientific research of

the multitude of mindfulness techniques on specific populations of students of varying developmental levels (Greenberg & Harris, 2011; Semple et al, 2016). The mindfulness measurements that do exist, for the most part, have not been reviewed for quality of results (Eklund et al, 2016).

Conclusion

The evaluation of the literature illustrates an overwhelming abundance of qualitative research that supports mindfulness intervention as a valid technique to help students enhance their self-regulation skills. However, the vast majority of this research has not been conducted using blind controls. Additional questions about the validity of mindfulness research are raised when one identifies the lack of standardized measurements and quantitative results in school environments. Concern is increased when the needs of students with challenges such as ADHD, ASD, depression, or learning disabilities are taken into consideration. Public schools are legally obligated to provide an equitable learning environment for students such as these, however there doesn't seem to be any mandated regulation for special needs accommodations where mindfulness interventions are concerned even though these students are arguably in the greatest need for such interventions. More research needs to be conducted on mindfulness as it relates to inclusion classrooms and the training of practitioners.

In my upcoming media content analysis, I hope to add and contribute to the conversation of mindfulness intervention in schools with a focus on equitable applications for special education students. This method would be useful in particular because I will be able to examine the variety of techniques and diversity of practitioner experience with special education students. In conducting this media content analysis, I believe I will identify a chasm between what has been proven to help students and what is being presented to students under the umbrella

of mindfulness. I also believe I will identify needs for regulations on the marketing of mindfulness interventions and state-regulated certification for the equitable presentation of mindfulness.

Method

The method of research I used for this paper was content analysis of organizations offering mindfulness to K-12 teachers and students. Website content analysis is the examination of existing information which has been recorded in media in order to determine patterns of evidence. I conducted an internet search of “Mindfulness Services in K-12 classrooms” to identify the organizations I would examine. The internet search for “Mindfulness in K-12 Classroom Services” yielded more than 2.5 million results. After examining several pages of these results, I chose ten mindfulness organization websites to analyze: Mindful Schools, The Association for Mindfulness in Education, Mindful.org, Mission Be, The School Mindfulness Project, MindUP, Calm Classroom, Mindful Education Services, Brilliant Mindfulness, and Yo Re Mi Kids. Using spreadsheets, I analyzed the content of these websites for similarities and differences in qualitative and quantitative claims, education and experience of their mindfulness trainers, content of testimonials, and adaptation of the programs for special education students.

Results

As seen in Table 1, seven out of the ten organizations are non-profit. Three out of the ten organizations are for profit. All ten organizations have a presence in the United States while three of these have international reach, as well. All ten of these organizations make claims of qualitative improvements in self-regulation, social emotional learning, attention, and stress reduction for both students and teachers. These results are measured by surveys or self-reports without blind controls. MindUP claims to “improve academic achievement especially in math and language arts.” The study cited by MindUP reveals that the math scores were end-of-year math grades given by teachers who also participated in the MindUP program and not a blind test (Schonert-Reichl et al, 2015). The study showing language arts improvements was conducted on pre-school students before they entered kindergarten. This test was administered by their teachers who also participated in the pre-school MindUp program (Thierry, et al, 2016). Neither study included special education students.

Six of the ten organizations display testimonials on their websites. All of the testimonials are qualitative based on personal interpretation and without measurement. Some examples of these testimonials are “‘Training with Mindful Schools changed my life, no doubt about it.’ – Christine de Guzman, Elementary School Educator,” “‘I have truly learned to become more mindful and ready to share that with my students.’ – Omega Trainee, Summer 2016,” and “‘After taking this class, I am truly listening to my students. I am much more aware of the wait time each student needs and I find myself really listening to the questions my students are asking.’ - High School Math Teacher.” As seen in Table 2, one out of the 123 testimonials documented was from a special education teacher. Her testimonial states, “‘In the short time that I have been using Calm Classroom, I have seen the benefits on a daily basis for both students and

staff. I wanted to thank you for putting together such an effective program that can be easily implemented in the classroom. Honestly, I think that this program could (and in my opinion should) be implemented in every classroom in this country.’ - Special Education Teacher, Upstate New York.” This testimonial is qualitative with no measurements offered.

Eight of these organizations offer paid services to school communities while the remaining two offer resources to locate mindfulness practitioners. Table 3 shows that 3 of the 57 mindfulness trainers working for the eight organizations offering services to schools or teachers have formal training in special education. One organization, The School Mindfulness Project, has job postings for mindfulness trainers with job descriptions and qualification requirements on their website. Qualifications for Phase 2: Mindful Student Training and Phase 3: Mindful Teacher Education include completion of an approved mindfulness education course with special focus teaching mindfulness to children, a personal mindfulness practice and three years of experience teaching mindfulness to children and adults. Being a Registered Children's Yoga Teacher or having a master's degree in education is preferred but not required.

Table 4 illustrates that out of the 10 mindfulness organizations examined for this analysis, 7 offer onsite teacher training, 6 offer online teacher training, 4 offer onsite student training, 2 offer online student training, 4 offer onsite school district programs, 4 offer online school district programs, 3 offer referrals to other mindfulness providers, and 4 offer products or services that can be purchased separately. Brilliant Mindfulness specifically notes that it offers onsite training only and will not distribute curricula to school districts.

Discussion

This study sought to analyze a sampling of mindfulness organizations that promote mindfulness interventions in K-12 schools and offer such trainings to teachers and/or students with particular attention to the application of mindfulness techniques to students with learning difficulties or developmental challenges who are being serviced by special education programs.

The more than 2.5 million results from my “Mindfulness in K-12 Classroom Services” internet search are evidence of the considerable interest in this subject. The providers that I selected had differing organization structures, reach, approaches, and levels of training. Despite this variance of application of programs, it is notable that all ten of these organizations make claims of similar qualitative improvements such as self-regulation, social emotional learning, attention, and stress reduction for both students and teachers. In reference to extent of impact, Mission Be claims to have impacted 7,000 students by successfully implementing their 8-12-week mindfulness curriculum in more than 28 schools. There is an assumption that 100% of the students in participated in the program successfully and there is no mention of a follow-up program. Even more dubious conclusions are made about the extent of impact by Mindful Schools who uses a compounding logic of multiplying the number of teachers who completed the program by the average number of students a teacher educates in their career to claim that they have impacted more than 150 million students. The multiple techniques, claims of impact, and program structures make it difficult to compare and contrast the effectiveness of each program with varying populations of children which calls into question the standards by which this organizations are measured.

As a result of the qualitative approach to claims of effectiveness, testimonials become a key device in marketing these programs to the public and school districts. One hundred and

twenty-three testimonials displayed on the websites were examined. This number does not include testimonial posts on social media. One out of these 123 testimonials was from a special education teacher who experienced benefits to both students and staff. Though this teacher's sincerity is not in question, the benefits that she claims are not specified and her testimonial is qualitative in content.

Two of the organizations, Mindful.org and the Association for Mindfulness in Education did not offer any direct mindfulness training to teachers or students. They did offer referrals to and resources for mindfulness practitioners with invitations to submit providers for listing. These sites also offered calendars of mindfulness events with invitations to submit more events. The vetting process for these events and providers is unclear. Though Mindful.org does offer online courses for individuals, none of these are specifically designed for educators or students, so I did not include them in the data illustrated in Table 4.

Eight of the mindfulness organizations in this analysis offered paid services to school communities. Notably, Brilliant Mindfulness does not offer training directly to students or curricula to school districts. Yo Re Mi Kids states that students who don't participate and are not disruptive are "...taking in information, which they may act on later..." suggesting that the program is beneficial, even if the student does not participate. More importantly, this is an acknowledgement that some children, for whatever the reason, will not participate in the activities presented. Mindful.org posts an article warning that mindfulness programs are "...not one size fits all..." and "...can never be reduced to a curriculum" (Kinder, 2017). Yet organizations are offering curricula for school implementation promising attentive students, refreshed teachers, and an overall feeling of wellbeing in the school environment.

The vast majority of mindfulness educators researched in this paper are not trained to manage students with learning, emotional, or developmental difficulties. Of the 57 mindfulness educators for schools examined, only 3 have formal special education training. Acknowledging that this is a very small sample, if this ratio were to remain constant in larger samples, this would mean that almost 95% of all mindfulness educators do not have special education training. Further evidence of this lack of attention to special education is brought to light when one examines the job posting for mindfulness trainers on The School Mindfulness Project website. Qualifications for teaching mindfulness to students and teachers include completion of an approved mindfulness education course with special focus teaching mindfulness to children, a personal mindfulness practice, and three years of experience teaching mindfulness to children and adults. However, being a Registered Children's Yoga Teacher or having a master's degree in education are not required. Essentially, all one needs to teach mindfulness in a school is an enthusiasm for the practice and a desire to teach it. This standard may be questionably acceptable for typically developing children, but completely irresponsible for engaging with children of differing levels of development and ability who need additional supports in their day to day school experiences.

Future studies of the application of mindfulness interventions in K-12 classrooms should include larger sample sizes, blind controls, and follow-ups at six months, one year, and two years. Additionally, individual programs should be examined and compared to each other using standardized measurements and methods in order to determine the most beneficial techniques. Future studies should also include special education students with IEP's who have, until this point, been conspicuously missing from the majority of the data sets.

Conclusion

Mindfulness practices in schools are a potential benefit to students and teachers alike. Stress is a universal problem for all students and is augmented in students with learning challenges, emotional difficulties or developmental delays. Mindfulness interventions might help lessen some of that stress. Students with learning challenges have difficulty with self-regulation which leads to maladaptive behaviors. Self-regulation skills are developing at the same time that students begin their formal education. Therefore, kindergarten is an ideal time to begin introducing social emotional learning curriculum and self-regulation techniques. Attaining these skills are believed to be an integral component to a student's general achievement in school. It has been suggested that students in mindfulness groups will have greater self-regulation skills. It has also been suggested that students who are in the utmost need for such interventions benefit to a greater degree than their typically developing peers (Viglas and Perlman, 2017). This makes mindfulness interventions an exciting prospect for the educational community whose goal is to help each child reach their fullest potential.

It is the desire for student success that drives the enthusiasm for mindfulness interventions. However, equitable presentation of these mindfulness techniques seems to be lacking in the practical application in schools. Only 5% mindfulness practitioners examined in this study had special education training. This is particularly concerning when one takes into account that in one study the increased awareness attained through mindfulness practice made students who have difficulties in learning, emotional health, or developmental delay more cognizant of their needs and challenges which led to lower psychological satisfaction and self-esteem (Malboeuf-Hurtubise et al, 2017).

As of yet, we do not know the long-term psychological effects of mindfulness practices when applied to special education students. In fact, as of yet, we do not know which of the seemingly endless number of mindfulness programs are the most effective with any student. The practice of mindfulness is lacking in agreement of measurement which greatly inhibits the progress of this emerging branch of psychological treatment. This is particularly true for child and adolescent mindfulness interventions. Measurements that do exist, for the most part, have not been reviewed for quality of results. Standard experimental designs are not being employed in the majority of mindfulness measurements. This absence of valid measurements of mindfulness in children illustrates the need for such measurements for use by school-based practitioners. It is essential to standardize measurements of long-term effects in order to quantify the benefits of mindfulness for children in school settings (Eklund et al, 2016).

It is standard educational practice to integrate special education students into general education classes. It is the legal responsibility of school districts to present academic materials with modifications and accommodations in order to insure an equitable learning environment for these students. Until the scientific and educational communities implement standardized mindfulness measurements and training regulations of programs and practitioners who claim to teach mindfulness, we must be concerned with the possibility that any of these programs may be psychologically harmful for special education students, if implemented without equitable practices.

References:

Association for Mindfulness in Education. (n.d.). Retrieved March 26, 2020, from <http://www.mindfuleducation.org/>

Eklund, K., Omalley, M., & Meyer, L. (2016). Gauging Mindfulness In Children And Youth: School-Based Applications. *Psychology in the Schools, 54*(1), 101–114. doi: 10.1002/pits.21983

Felver, J. C., Doerner, E., Jones, J., Kaye, N. C., & Merrell, K. W. (2013). Mindfulness In School Psychology: Applications For Intervention And Professional Practice. *Psychology in the Schools, 50*(6), 531–547. doi: 10.1002/pits.21695

Brilliant Mindfulness (n.d.). Retrieved March 26, 2020, from <https://www.brilliantmindfulness.com/>

Calm Classroom. (n.d.). Retrieved March 26, 2020, from <https://calmclassroom.com/>

Flook, L., Goldberg, S. B., Pinger, L., & Davidson, R. J. (2015). Promoting prosocial behavior and self-regulatory skills in preschool children through a mindfulness-based kindness curriculum. *Developmental Psychology, 51*(1), 44–51. doi: 10.1037/a0038256

Fuchs, W. W., Mundschenk, N. J., & Groark, B. (2017). A Promising Practice: School-Based Mindfulness-Based Stress Reduction for Children with Disabilities. *Journal of International Special Needs Education, 20*(2), 56–66. doi: 10.9782/2159-4341-20.2.56

Graham, L., Barron, K., Willard, C., Alexander, A., Blakeslee, H. S., Salzberg, S., ... Goldstein, E. (2020, April 21). healthy mind, healthy life. Retrieved from <https://www.mindful.org/>

Greenberg, M. T., & Harris, A. R. (2011). Nurturing Mindfulness in Children and Youth: Current State of Research. *Child Development Perspectives, 6*(2), 161–166. doi: 10.1111/j.1750-8606.2011.00215.x

IES NCES (National Center for Education Statistics), Children and Youth with Disabilities. (2019, May). Retrieved February 17, 2020, from https://nces.ed.gov/programs/coe/indicator_cgg.asp

Kinder, M., O’Leary, W., Goldstein, E., Goldstein, S., Kuyken, W., Hunter, J., ... Newman, K. M. (2018, May 29). Why Mindfulness Belongs in the Classroom. Retrieved from <https://www.mindful.org/why-mindfulness-belongs-in-the-classroom/>

Malboeuf-Hurtubise, C., Lacourse, E., Taylor, G., Joussemet, M., & Amor, L. B. (2016). A Mindfulness-Based Intervention Pilot Feasibility Study for Elementary School Students With Severe Learning Difficulties: Effects on Internalized and Externalized Symptoms From an Emotional Regulation Perspective. *Journal of Evidence-Based Complementary & Alternative Medicine, 22*(3), 473–481. doi: 10.1177/2156587216683886

Malboeuf-Hurtubise, C., Joussemet, M., Taylor, G., & Lacourse, E. (2017). Effects of a Mindfulness-Based Intervention on the Perception of Basic Psychological Need Satisfaction among Special Education Students. *International Journal of Disability, Development and Education*, 65(1), 33–44. doi: 10.1080/1034912x.2017.1346236

McClelland, M. M., & Cameron, C. E. (2011). Self-Regulation in Early Childhood: Improving Conceptual Clarity and Developing Ecologically Valid Measures. *Child Development Perspectives*, 6(2), 136–142. doi: 10.1111/j.1750-8606.2011.00191.x

Mindful Educational Services. (n.d.). Retrieved March 26, 2020, from <https://www.mindfuleducationalservices.com/>

Mindful Schools - Our Programs. (2020). Retrieved from Mindful Schools: <https://www.mindfulschools.org/about-mindfulness/our-programs/>

MindUP for Schools. Helping Children Thrive In School, Work and Life! (n.d.). Retrieved March 26, 2020, from <https://mindup.org/>

Mission Be - Mindfulness Education in NYC, Long Island, Silicon Valley, CA. (n.d.). Retrieved March 26, 2020, from <https://missionbe.org/mission-be-in-your-classroom/>

Nieto, S., & Bode, P. (2018). *Affirming Diversity: The Sociopolitical Context of Multicultural Education*. New York: Pearson.

Rix, G., & Bernay, R. (2015). A Study of the Effects of Mindfulness in Five Primary Schools in New Zealand. *Teachers Work*, 11(2), 201–220. doi: 10.24135/teacherswork.v11i2.69

Schonert-Reichl, K. A., Oberle, E., Lawlor, M. S., Abbott, D., Thomson, K., Oberlander, T. F., & Diamond, A. (2015). Enhancing cognitive and social–emotional development through a simple-to-administer mindfulness-based school program for elementary school children: A randomized controlled trial. *Developmental Psychology*, 51(1), 52–66. doi: 10.1037/a0038454

School Mindfulness Project. (n.d.). Retrieved March 26, 2020, from <https://www.schoolmindfulness.org/>

Semple, R. J., Drotman, V., & Reid, B. A. (2016). Mindfulness Goes To School: Things Learned (So Far) From Research And Real-World Experiences. *Psychology in the Schools*, 54(1), 29–52. doi: 10.1002/pits.21981

Thierry, K. L., Bryant, H. L., Nobles, S. S., & Norris, K. S. (2016). Two-Year Impact of a Mindfulness-Based Program on Preschoolers' Self-Regulation and Academic Performance. *Early Education and Development*, 27(6), 805–821. doi: 10.1080/10409289.2016.1141616

Viglas, M., & Perlman, M. (2017). Effects of a Mindfulness-Based Program on Young Children's Self-Regulation, Prosocial Behavior and Hyperactivity. *Journal of Child and Family Studies*, 27(4), 1150–1161. doi: 10.1007/s10826-017-0971-6

Yo-Re-Mi Kids. Music, Yoga and Mindfulness in Schools. (n.d.). Retrieved March 26, 2020,
from <https://www.yoremikids.com/>