Improving The Mental Health Of Students And Staff Through Mindfulness Training And Practices

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IMPROVING THE MENTAL HEALTH OF STUDENTS AND STAFF THROUGH

MINDFULNESS TRAINING AND PRACTICES

by

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A capstone submitted in partial fulfillment of the
requirements for the degree of Masters of Arts in Education.

Hamline University

Saint Paul, Minnesota

December 2017

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To my mother. You were the first and only one in our family to get a masters. Now, I am following in your footsteps.

ACKNOWLEDGEMENTS

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CHAPTER ONE

Introduction

Overview

The school day had been dominated by a pursuit of higher levels of academic

performance and increases in standardized testing. Some would say we started teaching

for the purpose of testing instead of teaching children a love for learning. During the last

fews years the education system has seen a shift in professional development away from

just academics to a more holistic child wellbeing and preparation for the world outside of

school. Students need more than just academics, they need guidance in social and

emotional learning. One concept of bringing social and emotional learning to students is

through mindfulness. After working with our mindfulness coordinator and experiencing

her practices it has made me wonder: *what impact does mindfulness training and*

practices have on the mental health of staff and students?

Throughout the chapter, I will describe my own struggles with stress and anxiety,

my encounters with neuroscience, and my past experiences with mindfulness. All of these

drove my decision to learn more and dig deeper into the world of mindfulness. I hope that

through my project I will be able to identify the scientific backing behind mindfulness

practices and how they affect both our students and staff.

The Diagnosis

During my last years in high school and first year of college I started to

experience an escalation in the number of high anxiety episodes, which deterred me from

participating in social activities or events. During high school my parents wrote them off as teenage hormones and stress. In college my friends saw similar events or activities cause me distress but I couldn't blame them on hormones or stress any more. Although they had only known me a few months my new friends encouraged me to visit our free college counseling center for individual counseling and testing.

My college counselor diagnosed me with Social Anxiety Disorder (SAD). This diagnosis, the act of labeling my mental illness, participating in talk therapy, and taking medication, changed my life. My counselor did an effective job of guiding me towards identifying the root causes and symptoms of my anxiety. Not only was I able to start to focus on the causes and physical symptoms, but I was also able to learn how to take back control. When I look back on my life before my diagnosis I regret all the life experiences I missed. Having SAD made it difficult to participate in most peer activities for fear of appearing or acting inappropriately. The idea of standing out or being the center of attention made me sweat and feel sick to my stomach.

Through my introduction to mindfulness I have seen numerous strategies that my counselor used to help de-escalate my social anxiety. It is my belief that if mindfulness education had been a part of my youth my Social Anxiety Disorder would not have gotten as out of control as it did my senior year of high school into freshman year of college. Even after removing medication from my treatment plan I still continue to use the strategies taught to me by my college counselor. The techniques taught by my counselor helped me identify which situations will increase my anxiety and how to

prepare for and decrease those symptoms. By managing my symptoms I was able to live my life despite my disorder.

Because of the social stigma behind mental illness I think many believe it does not directly affect them. However the National Alliance on Mental Illness (2017) reports that 1 in 5 children between the ages of 13-18 have or will have a serious mental illness. Additionally, nearly 60% of adults and 50% of youth aged 8-15 did not receive mental health services in the previous year (NAMI, 2017).

Importance of the Brain

I never really saw myself poring through scientific papers studying the functions of the brain and nervous system, however a relationship drew me to the topic. I had been dating Ben for about a month when he informed me that two years prior he had brain surgery to remove a cancerous tumor. Researching the tumor on Google was scary, but I told myself it was two years ago and he deserved a chance to get back to a normal life, one that would not be limited by the disease in his past. He deserved the opportunity to live life normally and go about everyday activities like everyone else, without me dismissing the relationship we had began to build based on his past. Unfortunately, this was not the case, the tumor returned a few months later. I began to notice his behavior, mannerisms and social interactions change as the tumor slowly grew back.

Over the next two years he survived a second brain surgery, months of chemotherapy and countless other drugs that directly affected his brain. This second surgery required a larger section of brain to be removed. I do not know if I have ever experienced a longer day in my life than on the day of his surgery. I waited with his

family for almost ten hours. Possible side effects of the surgery included loss of speech, physical movement, memory, or complete brain death. Though when he awoke, everything seemed fine. He remembered who he was, who we were, could walk and talk. We were all ecstatic and thought everything was going to go back to normal.

Although he initially dodged the more severe side effects we began to notice that his personality changed post surgery. To anyone who did not know him before the second surgery, they would have never even noticed. Those of us though that were closest to him could see the differences. Removing that section of the brain might not have affected his physical abilities or long term memory, but it did change his social and emotional behaviors. Ben's emotional connections and decision making processes changed the most post surgery.

As the second year of treatment began it became apparent that the tumor had returned and began spreading to other part of his brain. Treatment was not making any progress in slowing down the tumor and only added negative side effects, so in time all treatments were ceased and Ben entered at home hospice care. Slowly the Ben I knew disappeared as his brain was taken over by this foreign invader. Towards the end he lost all ability to communicate and most motor functions. On Tuesday, January 10th, 2017 Ben passed away, at home, surrounded by his loved ones.

These two years were filled with doctor's visits, chemotherapy appointments, MRI scans, and lots of talks with surgeons and radiologists. We spent many hours learning as much as possible about Ben's brain. Prior to my relationship with Ben I did not know much about the interconnections of the brain or neuroscience. I became

fascinated with learning everything about how the brain works, especially the intersections between neuroscience and education.

Neuroscience. During my graduate course work I selected neuroscience as a topic for a group project influenced by my relationship with Ben. We had to create a 'Learning Theory' handout for our classmates. When I first began research for this project I was extremely overwhelmed. I would read research paper after research paper and barely comprehend the science. I first learned that Neuroscience was not really a 'Learning Theory' but a branch of scientific study focusing on the structure and function of the brain and nervous system. I had really enjoyed science in school as it was very logical and organized so I enjoyed continuing my research for this project.

Neuromyths. The final handout included a history of neuroscience and education, a very basic lesson on how the brain learns new material, teaching implications based on how the brain works and neuromyths. Neuromyths fascinated me the most as these were concepts that I had been told were to be true and knew many people believed the same, but the recent discoveries in neuroscience proved them wrong. The first neuromyth that shocked me was that there was no scientific evidence for learning styles (Sousa, 2011). I had been administering the learning styles survey to my students for years and had talked with students about how their individual learning style profile identified a specific system for which they learn. This however is not a rigid identification, learning style preference could change as the students grew or could vary by content being learned. This changed the way I taught and administered the learning styles survey in my classroom. I instead focused on being deliberate about differentiating my instruction to meet all styles.

A second neuromyth that I was excited to learn about was the fact that we could

not identify as being entirely right or left brained (Sousa, 2011). I had always struggled

with the concept that I had to pick and did not feel like I could identify with only one

side: the left logical brain or the right intuitive brain. I wanted to be both mathematical

and creative. The science told us that the two sides needed to work together; society

needs people who can creatively problem solve and that requires both sides of the brain

to be engaged (Sousa, 2011).

Neuroplasticity. The further I dug into my research the more I wanted to know. I

think I felt most optimistic about not only the future education of my students but also my

own when I read about neuroplasticity. This process allows the brain to repeatedly make

new connections and reorganize itself (Sousa, 2011). Neuroplasticity means that there is

not a finite number of connections our brain can make or that once a connection is made

it cannot be changed. In my own life this opened up the possibility to truly embody the

ideal of lifelong learning. I could continue to learn and integrate new ideas without

hitting the glass ceiling. Additionally my students who were struggling to learn

mathematics just needed to make the right connections. Teachers and parents could no

longer tell students that, "It's ok, I was never good at math either, some people have it

and some don't". The science behind plasticity of the brain proved this long-standing

belief wrong.

Fixed vs. growth mindset. The scientific language of neuroplasticity is put into

more accessible language when talking about Carol Dweck's fixed and growth mindset

beliefs. I attended my first professional development on Dweck's mindsets during my last

year teaching. An individual with a fixed mindset believes that they are only born with a specific amount of intelligence and no more. In comparison, someone with a growth mindset believes that intelligence can be developed over time (Dweck, 2010).

As a math teacher I was excited to bring the concept of growth mindset to my students. Growth mindset combats the few, but nevertheless consistent, student beliefs that they have never been good at math, so they never will be. Teaching them growth mindset and the inner workings of the brain including neuroplasticity was an integral part of changing the way students viewed intervention and retakes.

Most of my knowledge about the brain and education was centered around the cognitive abilities and not on the social and emotional brain functions. I knew that creating strong relationships with students was important but did not know anything about the science behind social emotional learning. Since I had rooted so much of my knowledge of how students learn on actual brain science, I was skeptical when mindfulness was initially brought into our district as a resource to support social and emotional learning and growth mindsets. I will admit my naivety was due to the fact that all I saw was meditation and yoga and did not initially learn about the brain science behind these methods.

Mindfulness Educational Specialist

Not many school districts have their own Mindfulness Educational Specialist, but the district in which I work does. Now you may be asking yourself what is a Mindfulness Educational Specialist? I did, and to be honest, I was extremely skeptical at first. I did not have the faintest idea about what she did or even what mindfulness was. Now that I

have seen firsthand and heard the success stories of students in our district, I know mindfulness is working.

Personal practice. The first time I encountered mindfulness was in a district office email inviting me to attend an optional thirty minute small group mindfulness practice. Honestly, I did not have anything scheduled during that time so I decided to attend. Our session consisted of a quick explanation of mindfulness and then a short stress reducing mindful meditation lead by our Mindfulness Educational Specialist. Due to my lack of experience and unsuccessful mediation practices in the past, I was skeptical about participating. However, I was surprised to find how relaxed and focused I was for the rest of the day.

These small practices continued on a bi-monthly basis. Additionally our Mindfulness Educational Specialist began running similar sessions in our large group meetings. Each time she would explain more about the brain science behind her techniques and how mindfulness can help our students and staff. I looked forward to these sessions and am truly excited when I see her name on the agenda, as I know I will get the quick mindful practice to help reduce my stress. I have experienced the impact of continuing these exercises throughout the year and use them regularly before stressful meetings.

School success stories. Every time our Mindfulness Educational Specialist presented she would not only describe the science behind the mindful technique but also shared success stories of students she had worked with around the district. The most powerful story she shared was of a student who had to be put into so many protective

holds during a school year that the state got involved. A protective hold refers to a physical intervention that requires the adult to hold a child immobile or limit a child's movement. Holds are used on children who are so out of control that they may injure themselves or others.

Prior to becoming the Mindfulness Education Specialist, Mary T. Schmitz worked for 21 years as a School Social Worker in one of our district elementary schools. Schmitz had been involved with many of the holds that had been placed on this particular student. She describes the holds in such detail, remembering the specific position of her body and the required small release of pressure every 30 seconds. Although at the time the student was only in elementary school, Schmitz recalls how drained her body felt during this specific year of service because of this physical exertion. Two adults would place the protective hold on the student, sometimes up to several hours, until he would collapse into sleep.

Each time one of these protective holds had to be placed on the student, staff members would have to document everything. Especially important to document was all of the steps they took prior to administering the hold, indicating that it was the last resort. Schmitz recalled all of the paperwork that had to be completed every time she administered a protective hold on a student. In schools this is the last resort, not only because of the headache of mass paperwork but also because of the opportunity of harm coming to either adult or child. Schools are required to report to the state officials on the number of times they have had to administer a protective hold on a student and this

student had the highest numbers the school has ever seen. He required protective holds on a weekly and sometimes daily basis.

Not only was the student experiencing these episodes at school but also at home. He had very involved parents who were supportive and engaged in his education. Protective holds were also used at home by his mother and father. Something needed to be done to change this behavior.

Identified on the extreme end of the Autistic spectrum, the student qualified for extended school year or summer school. It was at this time Schmitz decided to try something different with her students. During the summer Schmitz guided the students through daily mindfulness practices. As a group they would do a daily mindful movement, 20 minutes of Yoga Calm, which is described in chapter 2, and a meditation practice in addition to breathing techniques.

These interventions continued into the school year. Additionally, throughout the school year the student would utilize the strategies learned during summer school independently. He would use body-based mindfulness strategies to calm himself down by selecting specific poses to use when he found himself begin to feel stressed in the current situation. Cognitive self-regulation was not available to this student because of his disability, but moving his body mindfully helped him regain control.

During his 5th grade year he did not require a restrictive hold even once. This was an incredible change from the student he had been only two years prior. When he began his 6th grade year at the middle school, his parents were shocked that they didn't have the same mindfulness opportunities for him there. Quickly a grant was written to acquire the

required money to pay for additional training of staff on mindfulness strategies. This started our mindfulness integration in my district and sold me on the importance of bringing mindfulness to all our students and staff in the district.

Overview of the Thesis Project

To answer the question *what impact does mindfulness training and practices have on the mental health of staff and students?* I created a district mindfulness resource website. In coordination with our district Mindfulness Educational Specialist we created webpages for mindfulness practices, teacher and parent resources. The website provides my district with mindfulness resources in the form of video practices, literature resources for both kids, parents and staff, online applications and updates on mindfulness activities across the district.

Conclusion

The Minnesota Department of Education is currently working on developing competencies, learning goals, benchmarks and sample activities to promote social and emotional learning. Schools are going to be required to begin including more social emotional learning into their school day. One way the district I work in is ahead of the curve is through hiring a Mindfulness Educational Specialist. Although she is a great resource there are many who do not know or understand mindfulness, its practices, or scientific backing.

This capstone has developed from my desire to understand how mindfulness can help improve the mental health of staff and students in the district I work in. Through examining my past mental health struggles and limited experience with the district

Mindfulness Educational Specialist, I found a common link of improving mental health through mindfulness. My hope is that through my project I will be able to develop a better understanding of how mindfulness can support our staff and students develop healthy social and emotional constructs.

In chapter 2, I explore the literature around neuroscience, mental health, and mindfulness practices. After conducting the appropriate research, in chapter 3 I will illustrate the steps and resources I used to create my capstone website. Chapter 4 is a reflection on the entire process and creation of the website.

CHAPTER TWO

Literature Review

Overview

My teacher training covered lesson design, best practices, and content expertise. We focused on classroom management and privacy rules. Social and emotional education was not heavily integrated into my training. Schools are beginning to be more thoughtful about integrating social and emotional learning into the classroom. Specifically, my district is integrating mindfulness practices to meet these needs. In this chapter, I explore the literature that will help me answer the question; *what impact does mindfulness training and practices have on the mental health of staff and students?*

I first discuss the application of neuroscience as it relates to learning new material through the use of neuroplasticity. This research is relevant to my topic, as the principals behind neuroscience are what make mindfulness work. Additionally I explore how the brain is related to child development and emotional regulation. The following section will explore mental health issues in a broad sense and within the school system. The next sections of the literature review will introduce Mindfulness and three practices. The closing portion of the literature review explores some of the research behind mindfulness-based interventions and the utilization within schools.

Neuroscience

The weight of a human brain is, on average, three pounds (Wesson, 2001). These three pounds make up the control center for the entire body. The majority of functions, controlled by the brain, are done unbeknownst to human consciousness. This is a good

thing, as it would not be beneficial to constantly be processing information about the digestion processes, pumping blood with the heart, breathing etc. (Taft, 2015). This leaves the conscious mind free to focus on learning, retrieval of information, and emotional regulation. The hard part is actually making use of the conscious mind to direct the brain towards living a healthy lifestyle academically and emotionally. In order to best accomplish this, the inner functions of how the brain works need to be examined.

Learning something new. It is important that teachers understand how learning takes place in the brain, as well as how to help students learn additional information and make connections to old information. There are three main steps for the brain to follow when learning new information. First there must be some stimulus that initiates the cycle. From there the information activates the short term memory system or "active brain". This active brain is the part of our brain that decides where information is important and should be stored for later. If the information or stimuli is deemed important the long term memory system encodes the information through repetition or by associating that information with other learning (White, 1996).

The saying 'what fires together, wires together' is a popular phrase in the education world when it comes to teaching how the brain works. This phrase has been used in programs like Quantum Learning (http://www.quantumlearning.com/) to train teachers about the functions of the brain. The phrase is referring to the encoding of information in the long term memory system. When teachers present new information to students it is important that they understand how the brain works; to ensure that the new learning makes its way to the long term memory, either through repetition, or through

connecting that new learning to previously learned information. Without the repetition or connections, new learning will not make it all the way into the long term memory and will thus be dropped. These systems do not work properly if the student cannot access their short term or active brain.

We cannot discuss brain science without talking about neurons. Neurons make up the basic structure of the brain and are seen as the communicators of information. There are more than 100 billion neurons in the brain. Each neuron is made of three parts: the cell body, dendrites, and the axon. The dendrites are the receivers of information and connect one neuron to another. The number of dendrite pathways increase with use or decrease when pathways aren't engaged (Wesson, 2001). "As the saying goes, 'Neurons that fire together, wire together.' Each time you think and re-think about an event, that memory is fortified in the brain" (Wesson, 2001, p. 62). These connections are imperative to improving our cognitive abilities.

Olson believes that it is important to understand "not just the cognitive circuits but the relational and emotional circuits as well. This knowledge can be applied to understanding how teaching and learning can be enhanced by the quality of our relationships with each other, and thus we can create a school culture that supports excellence" (2014, p.3). It is not enough to only focus on developing a student's cognitive abilities but to help develop healthy emotional connections within the brain.

Neuroplasticity. Technological advancements have allowed for researchers to really begin to understand how the brain works. Neuroplasticity is one of those discoveries that requires a major mindshift on how learning works. In the past the

mindset has been that the human brain has only a specific amount of capability and that learning becomes more difficult as we age. For example, the long running mindset that 'school sucks' can be rewired. This mentality can be changed, thanks to neuroplasticity. In this case if educators create repeated positive experiences those old connections between 'school' and 'sucks' can be rewired (Olson, 2014). However, educators have to work hard to continually provide positive experiences to make those connections.

According to Taft "all learning is neuroplasticity at work" (2015, p. 17). What he means by this is that new learning cannot take place without the brain's ability to rewire itself and even more important is that the brain can be purposely sculpted.

Child development. At every well-child doctor's appointments young children are evaluated on their development. Physical measurements are taken and recorded: weight, height, heart rate, temperature etc. Parents and doctors talk about healthy child development and where their child fits into standard growth charts. At various appointments doctors might deliver a short developmental screening. The American Academy of Pediatrics recommends that at well-child visits children are screened for developmental delays three times before their third birthday, as found on the Centers for Disease Control and Prevention (2017). They only recommend additional screening if the child is at risk based on a low birth weight, premature birth, or other factors. It is up to the parent to ask for additional screening as their child grows up. These screenings help identify children who have developmental or behavior disabilities.

The Center for Disease Control and Prevention (2017) reports that, in the United States around 13% of children, between the ages of 3 and 17 have a developmental or

behavioral disability. Once identified, these students receive support in the form of treatment, direct instruction or therapy, to meet the needs of their individual developing brain . These children receive social, emotional, and mental health services and specific developmental monitoring. What about the other 87% of children? What kind of support or development is provided for students that do not have disabilities? They too need social, emotional development.

Siegel and Bryson (2012) argue that "even the most caring, best-educated parents often lack basic information about their child's brain" (p. 3). They believe that by teaching the basics about how the brain works to parents and other significant caregivers, they will be able to respond appropriately when their child is struggling and develop a better foundation for social, emotional and mental health. Brain development in the areas of social and emotional learning should not only be a focus for those that have delays or deficits, but for all children.

Emotional regulation. Another part of the brain that is essential to our discussion is the prefrontal cortex. This part of the brain coordinates a person's executive functions like their emotions and impulses. Unfortunately, for adolescent students this part is not fully developed until adulthood (Paterson, 2016). This means that adolescents are unable to fully utilize their prefrontal cortex to make decisions about emotions and impulses.

Broderick (2013) defines emotional regulation as "strategies used to moderate affective experiences in order to meet the demands of different situations or to achieve certain goals" (p. 9). This means that people are required to be taught, develop and practice these strategies in order to be self-regulated. Broderick states that through stable

emotional relationships with loving caretakers, children develop the skills to self-regulate

their emotions (Broderick, 2013). Therefore it is essential that adults not only teach

children about reading, writing and arithmetic, but also integrate self-regulation practices

to help them develop those skills.

Some however do not receive the appropriate development of these strategies.

The root of several adolescent disorders, including depression, eating disorders,

deliberate self-injury, substance-abuse, and stress can be traced back to difficulties in

emotional regulation (Broderick, 2013). It is essential then, that emotional regulation

deficiencies are addressed in those students who demonstrate a lack of knowledge of

regulatory strategies. If these deficiencies are addressed through the teaching of social

and emotional skills, the population with mental health problems could decrease.

Mental Health

The National Alliance on Mental Illness (2017) indicated that many mental health

conditions begin in adolescence and half of individuals who live with a mental illness

developed it before the age of 14. Additionally, one in five children live with a mental

health condition while less than fifty percent will get the mental health services they need

to be treated. They believe that schools play an important role in helping these students

get the help they need by providing services in school and helping them make

connections to other outside supports. These services could include support groups,

individual counseling, medication, and therapy.

Mental Health in the Schools. According to the National Association of School

Psychologists (2017) of those students who do get help, about two thirds only get support

from within the school. They believe that there is a high cost if schools do not integrate social, emotional and behavioral learning into the school day, which includes academic and behavior problems, dropping out, and delinquency. Schools are the perfect place to offer not only interventions for students who already are struggling with mental illness, but also provide prevention curriculum focusing on social and emotional learning for all. These services are best provided in a multi-tiered system of support similar to those that are used for academic interventions. This continuum of support should provide services for all students in a core academic program to increase mental well-being. Beyond that there should several more levels of support for students who need additional resources beyond the core curriculum.

The Association for Children's Mental Health (2017) states that "1 in 10 young people have a mental health challenge that is severe enough to impair how they function at home, school or in the community". These impairments are hindering a student's success, but if services are provided, they can reverse these effects and reduce the impact for the student. However, these services have to be individualized per student as not all students exhibit the same symptoms or manage them in similar ways. It is essential that schools work to identify the specific needs of each student and work with them to develop coping mechanisms to reverse the adverse effects of their mental illness.

A majority of mental illnesses begin to develop during childhood and adolescence. The NCS-A study found that onset could occur at the earliest for anxiety disorders at the age of six; next was behavior disorders at 11, mood disorders at 13, and substance-abuse disorders at age 15 (Broderick, 2013).

There are many stressors that can affect a student's mental health, and divorce is one of them. Unfortunately, divorce is becoming so commonplace that it can go overlooked as a tragedy that could cause major mental health issues. Statistics show that over half of marriages now end in divorce and divorce is seen as second to death as a stressor in a child's life (Gillen and Gillen, 2009). The environment in which we are raising children has changed dramatically and this change needs to be addressed through changes in curriculum. Rechtschaffen (2014) argues that "a child's emotional environment is key in the development of not only physical and emotional health but also academic and worldly success" (p. 15). In other words, the mental health of all children affects their life long success and should not be ignored.

Mindfulness

Mindfulness has been defined by several of the big names in mindful literature. One of the most quoted definitions of Mindfulness comes from Jon Kabot-Zinn. In his book *Full Catastrophe Living* (2013) Kabot-Zinn defines mindfulness as "the awareness that arises by paying attention on purpose, in the present moment, and non-judgementally" (p. xxxv). Although this is one of the most common definitions, Amy Saltzman transforms the essence of Kabot-Zinn's definition into more student friendly language. Saltzman (2014) describes mindfulness as "paying attention here and now, with kindness and curiosity, and then choosing [their] behavior" (p. 9). This definition is a bit more accessible to those first learning about mindfulness.

Paying attention on purpose. The first step of mindfulness is to purposefully pay attention to oneself: body, mind, and feelings. Other words that are used to describe this

part of mindfulness to children are noticing or bringing awareness (Willard, 2016). These words can sometimes work better than paying attention, since children are consistently being asked to pay attention in all aspects of their life, especially on activities that are non-engaging.

      Present moment. Being mindful requires the person to focus on the present moment in which they are living in. Saltzman's (2014) definition includes focusing on the 'here and now' which requires all practitioners of mindfulness to focus on the present moment while avoiding the past or burdening themselves with things in the future. Saltzman (2014) argues that it is important when participating in mindfulness practices to not get caught up on experiences that have happened or are coming up. When a person is able to remove those distractions they are able to focus their attention on every individual moment and begin to establish a comfortable relationship with change. Additionally, research has shown that when focus is drawn to the present, there is higher production of the enzyme telomerase, which can contribute to living longer and healthier lives (Siegel, 2013).

      Healthier lives includes physical and emotional health. Lao-Tzu, the founder of Taoism, describes how when practitioners focus on the present they can directly affect their mental health. He described anxiety as a product of focusing too much on the future and depression as being stuck in past experiences (Willard, 2016, p. 29). If more people focused on the present moment there could be a reduction in mental health issues in regards to anxiety and depression.

Non-judgmentally. The final step is all about attitude. When participating in a mindfulness practice people are focusing with a purpose in the moment, but what do they do with those thoughts and emotions that arise? The attitude with which the practitioner addresses those thoughts or emotions during a practice is extremely important. In other words, practitioners need to approach their practice with kindness. Saltzman (2014) describes the practice of acknowledging the thoughts or emotions that arise with kindness and acceptance, not judging what specifically arises. Additionally she draws parallels to the Rollings Stones song "*You Can't Always Get What You Want.*" For practitioners this means those emotions or thoughts that are identified need to be acknowledged, but that the practitioner needs to accept that they might not be able to change those emotions or thoughts.

When a practitioner accepts what is happening they will be able to find greater peace and perspective (Willard, 2016). This is especially important in our current culture where social media presents a form of perfection that is unattainable. Practitioners need to approach these emotions and thoughts without judgement and with self-acceptance of the way they currently are.

Effects on the brain. Neuroscience and education have been interconnected for a while but our focus has been mostly on learning and the brain. We need to transition from just thinking about metacognition to looking at how emotions can affect learning and wellbeing in schools. When practicing mindfulness the effects do not only transform the mind but also make changes to the brain. Research has shown that mindfulness practices

can change the brains of practitioners positively, which in turn helps reduce anxiety, emotional instability, inattention and restlessness (Hyland, 2016).

Mindfulness Practices

This section will review the literature behind three of the main mindfulness practices; mindful breathing, meditation, and mindful movement. Each of theses practices equates to a large portion of mindfulness practice book resources. They are the pillars of building a strong mindfulness practice.

Mindful breathing.   When practicing mindfulness it is important to bring awareness to one's breathing. Breathing is the interchange of carbon dioxide for oxygen molecules; removing waste through each exhale and replenishing with each inhale. Rotne and Rotne (2013) describe how our breath can have a dynamic influence on our mental, physical and emotional state of being. They describe how when a person is stressed their breath becomes disorderly, but experience a harmonious breathing rhythm when they are calm. Furthermore they state that "breathing is the anchor in our mindfulness practice; the place we revisit again and again when thoughts dive our awareness into the future or back into the past" (p. 61). They believe that by bringing awareness to the breath, a sense of calm can be brought to bodies, feelings, and thoughts.

When practicing mindful breathing there are several parts of the breath that can be brought to attention. Jon Kabat-Zinn (2013) describes how being mindful of your breathing can draw awareness to the nostrils. This allows you to feel the breath as it moves in and out of the nostrils. Additionally, you could focus awareness on the belly. Kabat-Zinn (2013) reiterates that it is not the objective to try and change or control your

breathing but just pay attention and notice the feeling of each inhale and exhale. This means that it is not the intention that the practitioners thinks about their breathing, just that they need to become aware of the sensations they are feeling. Finally, mindful breathing does not need to be a long meditative practice. Bringing awareness to your breath during the day is a useful way of reorienting the body and emotions, focusing in on the present moment.

Meditation. According to Taft (2015) "meditation is, in the end, an incredibly simple activity. Essentially, you just sit and tune into what's going on" (p. 26). He believes that as long as you are in a quiet, undisturbed place you should be able to meditate. Meditation is not about reaching pure bliss or accessing some deep unconscious. Taft describes meditation as a time to be aware of the current state of mind or body, allowing it to happen and accepting it.

Similar to Taft, Jon Kabat-Zin (2013) describes meditation as non-doing. He describes how this can be difficult as practitioners take a while to become comfortable with spending time just being with themselves. It is as if they are having to reconnect with themselves, taking time to reconnect with who they truly are.

Mindful movement. Some might believe that mindfulness is mainly focused on the 'mind'. However, body-based practices are especially important for students who are required to sit at desks all day long to learn. Willard (2016) states that "body-based mindfulness practices reintegrate and recalibrate the mind-body system, restoring it to its optimal settings" (p. 92). He believes that if we teach students to understand that their

physical sensations can be hard or easy, that they are impermanent, they will be able to apply these same concepts to their emotions.

The saying "listen to your heart" or " go with your gut" imply that as humans we should be paying attention to what our bodies are telling us. Although previously viewed as a metaphor, these statements can be backed up by scientific research which illustrates a neural network connection between the storage of our core values and the heart and intestines (Willard, 2016). This means that when making decisions it is important to not only rely on the emotionally driven signals from the brain but also pay attention to what the body is trying to convey.

Mindful movement practices combine both mental and physical exercises. One mindful movement practices is walking meditation. This practices involves bringing awareness to the sensations in the body while walking (Willard, 2016). For this practice specific attention is placed on the senses so that each particular step is mindfully processed. It is important to slow down and notice every separate motion and sensation that goes into each step (Willard, 2016).

In Willard's *Growing up mindful* (2016), he describes multiple variations on walking meditation. Each specific walk has the participants not only moving their bodies by walking but also focusing on specific mental exercises. For example "walking with words" requires the walker to speak or think a phrase or word per step. Another asks the walker to take on the attributes of a specific character. This practice requires the walker to empathize with the character as they walk in their shoes. Each of Willard's walks engages both the mind and the body.

Another practice of mindful movement is Yoga Calm. The creators of Yoga Calm, Lynea Gillen and Jim Gillen, blended together traditional Hatha yoga practices of mindfulness with social and emotional skill development (2009). They found that when using such an integrated approach they were meeting the needs of the whole child. This in turn made educators more effective and increased the ability of schools to meet all of the curriculum requirements.

Mindfulness in the Schools

Schoeberlein and Sheth (2009) noted that "mindfulness and education are beautifully interwoven. Mindfulness is about being present with and to your inner experience as well as your outer environment, including other people. When teachers are fully present, they teach better. When students are fully present, the quality of their learning is better" (p. xi). They go on to list many benefits of mindfulness for both teachers and students. Schoeberlein and Sheth (2009) explain how mindfulness, when integrated into education, can improve teacher focus and awareness along with increases in responsiveness to student needs and improved classroom climate. Whereas students experience increases in attention and concentration, with reduced anxiety and improved social and emotional learning.

Mindfulness-based interventions. One way that mindfulness is embedded into education is through mindfulness-based intervention (MBIs). MBIs are not only used to counteract mental health issues, but aim to increase a student's overall well-being. At first MBIs were used in the clinical setting. One such intervention was Jon Kabat Zinn's Mindfulness Based Stress Reduction(MBSR) which was used with patients to reduce

pain(cite). However, after the 1990s there was a shift from just clinically based interventions to integration into the occupational setting (Lomas et al., 2017). Shapiro, Schwartz, and Bonner (1998) found that when MBSR was used with medical and premedical students, stress levels were reduced. Research has shown that MBIs are effective at furthering the development of mindfulness (Lomas et al., 2017).

Mindfulness-based stress reduction. The changes in mindfulness and perceived stress due to participation in a mindfulness-based stress reduction (MBSR) program were tested by Baer, Carmody, and Hunsinger (2012). They looked at 87 adults who were experiencing high levels of stress. The participants completed an 8-week course in MBSR at an academic medical center. To track mindfulness and stress levels, participants completed weekly self-report assessments.

Posttreatment results indicated that the MBSR participants experienced significant changes in their mindfulness skills by the second week. Additionally, significant improvements in stress were not see until the fourth week. Results showed that the mindfulness skill changes that were made during the first three weeks could predicted the change in perceived stress throughout the intervention. This study aligns to previous studies in that "significant changes in mindfulness skills preceded significant changes in perceived stress, both variables improved reasonably steadily across the entire intervention" (Baer, Carmody, and Hunsinger, 2012, p. 732).

MBSR for teachers. The teaching profession is known for it's poor retention and recruitment of employees. One reason may be from the high levels of stress that are associated with the profession and thus negatively impact a teacher's health and

well-being. A study conducted by Gold et al. (2010) investigated the effects of teaching a Mindfulness-Based Stress Reduction (MBSR) course to primary school teachers. It was the intention that this course would reduce stress.

Teachers were recruited from suburban primary schools, and were presented on the background of mindfulness, and evidence of the practices, before being selected to participate. All nine teachers and two teacher assistants who qualified, identified as experiencing stress. They participated in an eight-week course following the syllabus of Kabat-Zinn's course as described in *Full Catastrophe Living* (1990 edition).

Participants were evaluated using the Depression Anxiety Stress Scales (DASS) to evaluate their emotional status and stress levels pre and post training. Additionally the Kentucky Inventory of Mindfulness Skills (KIMS) was used to evaluate the participants' mindfulness levels. Results showed that most participants experienced reduction in stress, depression and anxiety after participating in the MBSR course. This was shown by the changes in pre and post scores on the DASS. Additionally, on the KIMS participants showed increases in all 4 factors of mindfulness evaluated. This means that participants measured the increase in their ability to be more mindful.

Although the study was small and there was not a control group, the results indicated that "benefits may accrue following mindfulness training in terms of personal well-being, reduction in mental health difficulties, achievement of personally relevant goals, and enhanced ability to cope with the demands of teaching in a modern primary school" (Gold et al, 2010, p. 189).

School interventions. The educational environment has begun to swing away from heavy academic focus towards the integration of social and emotional learning in the classroom. In the past schools have been mainly focused on intervening when a student is experiencing academic deficits with academic interventions. The issue is that as students are receiving high quality academic interventions, their mental health is hindering their progress.

Research has shown that a well designed and implemented social and emotional learning programs can build mental health skills, boost classroom behavior, and increase achievement while reducing problem incidence (Broderick, 2013). This means that if schools wants to increase their academic achievement scores they should not be ignoring the social and emotional needs of children. One way to do this is through mindfulness-based interventions (MBIs).

The environment that surrounds children is filled with so many demands. Students are being pulled in so many directions, especially with the consistent communication demands of social media. "Learning to ground oneself and to concentrate on the present moment, as mindfulness training does, can be critically important skills for young people to develop so that they do not get overwhelmed." (Docksai, 2013, p. 9). Mindfulness practices, taught in school, can help today's students prioritize their lives, which could help with stress and anxiety.

Lomas et al.(2017) concludes that although mindfulness-based interventions (MBIs) do have a positive effect on reducing stress they should not be used as a band-aid for the larger issue. He argues that "MBIs are helpful to educators, but the

implementation of such interventions should not come at the expense of trying to create a system that is less inherently stressful" (p. 139). This means that although MBIs are effective, the education systems should not solely rely on their integration, without simultaneously looking to change the factors that create these stressors.

Conclusion

In Chapter 2, I reviewed the relevant literature to help answer the question *what impact does mindfulness training and practices have on the mental health of staff and students?* I first explored the world of neuroscience in relation to learning new things, child development and emotional regulation. I then discussed mental health statistics and the connections to schools. Specific literature in relation to mindfulness was then explored, specifically by obtaining a definition and describing the main principles: paying attention on purpose, focusing on the present moment, and practicing non-judgmentally.

I then went onto describe three mindfulness practices: mindful breathing, meditation, and mindful movement. The final section of the literature review covered the integration of mindfulness in the schools through mindfulness-based interventions.

In Chapter 3, I discuss the design and creation of a district mindfulness resource website. As part of the project description I will provide research on website design best practices and a plan for continued improvement and development of additional resources as part of a review process. This website will help mindfulness practices spread across the entire district.

CHAPTER THREE

Project Description

Overview

To answer my research question, *What is the impact of mindfulness training and practices on the mental health of students and staff?* I created a resource website. My project website will be a valuable resource for my staff, students and parents, as currently there are many who don't know much about mindfulness. The capstone project uses research based web design, includes space for feedback from visitors and can analyze web traffic. I foresee this website will evolve over the years to meet the needs of all staff and students, supporting them towards better mental health and increased practice of mindfulness across the district.

Project Description

For my project I created a website of resources for staff, students and parents. The mindfulness webpages are housed within the ISD 728 District Website under the Mental Health/Mindfulness/Prevention Department. The web pages can be accessed by anyone who visits the district website, no login required. This website includes training materials, and resources for in the classroom and at home. Links to parent, teacher and student literature are provided for further exploration into mindfulness by each group. I believe one of the most important sections will be an overview of mindfulness and content that will educate staff, students and parents about the philosophy and specific practices of mindfulness.

In addition to the main sections on mindfulness practices and trainings, I believe it is important to include links to other Mental Health resources that are available in the district and surrounding community. This web page provides viewers with additional links for Mental Health descriptions, statistics and available services. Although I believe in mindfulness practices, they may not work for everyone,therefore we need to provide additional access to the plethora of services that we connect our students and staff to.

Website Research

The Mindfulness webpages are housed within the district website. ISD 728 uses Blackboard Web Community Manager for their district website. Two years ago we moved away from the Schoolwires web management system. During these last two years everything from the old website has been transferred over to the new one and staff are using this new website as a homebase for all district resources. The new website has given our communications department the opportunity to streamline the look and feel of the district webpages.

Although the new web manager has many editing capabilities, there are some designs that are already in place by the district and cannot be changed. For example the main menu on the top and left hand sides of the webpages are district specific and cannot be edited. I consulted the *Research-Based Web Design & Usability Guidelines* (2006) by the Department of Health and Human Services while creating the mindfulness webpages to adhere to many of the usability guidelines. Even with good content, a poorly planned out website can diminish the usage and accessibility of that content. Each guideline is given a rating out of five, one being the lowest and five the highest, in two categories;

relative importance and strength of evidence. The relative importance score is based on website designers and usability specialists rating each guideline on its importance to the success of a website. Additionally a group of published researchers created criteria by which they judged the strength of evidence for each guideline, determine a score out of five. When choosing specific guidelines I focused on those which had been scored at a level four or five, for relative importance and strength of evidence; indicating moderate to strong research support and importance.

Providing useful content received both a five for relative importance and a five in strength of evidence. The *Research-Based Web Design & Usability Guidelines* (2006) specifically states that the website should "provide content that is engaging, relevant, and appropriate to the audience"(p. 2). Although I had reviewed large amounts of literature for this paper I only included the content which fits this guideline. It was important to include only the most important content as this is one of the most essential elements of a website (*Research-Based Web Design & Usability Guidelines,* 2006).

First impressions do count, even when it comes to home pages. With a relative importance of five and a strength of evidence four, creating a positive first impression was high on my list of priorities as I designed the website layout. The guidelines suggest that "the homepage is probably the most important page on a web site" (p. 37). As I created the main page I focused on including information that was eye catching, provided information on what the site was all about, offered quick links to other key topic web pages in order of importance, and included a Twitter feed that provided current stories on mindfulness activities taking place across the district.

Another guideline that was rated five on the importance scale and four for strength of evidence was not using color alone to convey information. This is especially important for an educational website, as we need to be cognizant of those who have disabilities. The *Research-Based Web Design & Usability Guidelines* (2006) specify that "most users with color deficiencies have difficulty seeing colors in the green portion of the spectrum" (p. 24). Thus I selected the coloring of text and other titles to remain consistent with our district logo colors of purple, blue and yellow, steering clear of the greens that could cause visibility issues.

Visually it is also important to keep the items on a page aligned. The guideline specifies, with relative important four and strength of evidence five, that when creating a web page layout it is imperative that you align items either vertically or horizontally (*Research-Based Web Design & Usability Guidelines,* 2006). This means that when creating a list it is important to align the bullet points vertically for ease of scanning while reading.

Another visual aspect that can hinder the viewing of material on the website is horizontal scrolling. Guidelines say to "use an appropriate page layout to eliminate the need for users to scroll horizontally" (p. 72). When viewers are required to scroll horizontally to view material, it can slow down them down. Eliminating horizontal scrolling has a relative importance of five and strength of evidence four.

The last guideline that I paid close attention to was matching the link name to the destination page. It is frustrating to click on a link that you assume will contain specific information per it's link name and the target page does not have anything to do with the

title. This guideline has both a relative importance and a strength of evidence four. The guideline says to "make the link text consistent with the title or heading on the destination (ie., target) page" (p. 88). When this is consistent it provides the user with the indication that they have reached the page they were looking for.

Before publishing the web pages I had my content advisor and multiple other users in our district preview the layout and navigation throughout the site. It was essential to have multiple users navigate the website before publication, to ensure the usability and consistency of the links to target pages.

Content Expert

This website was made in coordination with ISD 728's Mindfulness Educational Specialist, Mary T. Schmitz. Her background includes 21 years in the district as a School Social Worker. Schmitz earned her endorsement to teach Mindfulness Based Stress Reduction (MBSR) through the completion of the Oasis Training at the Center for Mindfulness at the University of Massachusetts (UMASS) Medical School.   She has completed focused training at the Mindful Education Institute (MEI) and Mindful Schools. We spent several days together creating the videos and discussing the material on the website. She was a valuable resource in the creation of my project and will continue to be for our district on our mindfulness journey. As she is only one person serving an entire district she is equally excited about promoting the creation of a district mindfulness resource website.

Audience

It is my intention that the website will be used by both staff, students and their parents. Not only to further their knowledge of mindfulness, but also access resources to help further their practice. This project will be housed on our district website and will be accessible through the Mental Health/Mindfulness/Prevention department webpage. Because my project will be housed within our district website, I believe it will be used mostly by staff, students and their parents within ISD 728.

According to the Minnesota Report Card (2017), Elk River Area School District (ISD 728) services over 13,219 students, of which 88% of students identify as white, 2.2% Black, 1.7% Asian, 3.4% Hispanic, 4.4% two or more races, and 0.3% American Indian/Alaska Native. Additionally ISD 728 employes over 838 licensed staff. Graduation rates have decreased from 90.1% in 2013 to 88.9% in 2016. The Free/Reduced Price Lunch special population is the largest at 17.6% and Special Education is close behind with 15.3% of the population. ISD 728 has a small population of English Learners, 2.3% and 0.3% are identified as Homeless. However, with the growing popularity of mindfulness being used in schools and the reputation of our Mindfulness Educational Specialist, who presents at national conferences, I foresee that this website will be viewed by many outside of the district.

Assessment

The Blackboard web management system along with YouTube video manager will be used to assess the website and video traffic. Blackboard manager tracks the number of times the webpages are visited. YouTube video manager counts the number of

times videos are viewed and how long they are watched. This data analysis will provide feedback on the most commonly visited web pages and most watched videos. I will use this information to further develop practice resources and create additional videos.

Although less quantitative, a comment/suggestion section is available on the district website and will allow visitors to provide feedback on the webpages. This feedback will be valuable in the refinement of resource material on the website. In addition the feedback will help guide the creation of future online and in person trainings provided by the specialist.

Timeline

The mindfulness resources website went live in early November, 2017. To accompany the launch of the website, communication about the new resource went out to all district staff through the first ISD 728 Staff Happenings, the bi-monthly all staff electronic newsletter, after website launch. The Upcoming Events webpage will continue to be updated monthly by the web manager, communications department and Mindfulness Educational Specialist. I will meet with the Mindfulness Educational Specialist quarterly to review the visitor data analytics. This review of website traffic will prompt the creation of additional resources that will be added to the website.

Conclusion

In Chapter 3 I described the mindfulness website that was created as a resource for staff, students and parents in my district. The web pages, which are housed on the district website, include resource materials, information about additional training and videos of mindfulness practices. Although accessible by anyone online, the main focus

audience are staff and students in the local community. With this project, staff and student awareness of mindfulness practices and resources available through our district will grow and hopefully have a positive effect on everyone's mental health.

Chapter 4, as the final chapter, will focus on the conclusions I arrived on after creating this website. In this last chapter I will discuss the future of the website and usage in the district in which I work. I will also consider the useful literature resources that were critical in the creation of the website. Finally I will examine the possible additions to the website that will make it a relevant resource for all staff, student and parents for years to come.

CHAPTER FOUR

Reflection and Conclusions

Overview

To answer the question, *what impact does mindfulness training and practices have on the mental health of staff and students?* I have created a district resource website. In this chapter I will provide a dialogue on the final published website. The first section will provide a reflection on new learnings that were gained through the completion of my project. I will reflect on my personal and professional growth in addition to rediscovering my love for engaging as a continual learner. The next section will describe the finalized project. I will then revisit the literature review as described in chapter 2. I will then speak to the implications and limitation of the project. The final section of the chapter will take a look at what next steps could be taken in order to continually improve upon this experience.

Learnings

This process began unfortunately with a switch in topics. Although I am very happy that I decided to change my focus, it did put extra stressors on me throughout the project. I knew that I could not continue down the road I was headed. I did not have the passion for the old topic any more and needed to find a subject that would truly engage me. While completing this project I experienced personal growth, rebooted my love for continually learning, and developed additional techniques for my professional life. Overall this experience has been straining but rewarding.

Personal growth. From the beginning the excitement of my content advisor Mary T. Schmitz kept me going strong. She spoke often of how excited she was to have a resource accessible to all staff, students and parents within our district. At trainings throughout the fall she would enthusiastically inform participants that soon she would have a website and teachers could access resources online. Her passion transformed this website from a required graduate project into a work of art.

The days I spent with Schmitz taught me a great deal about who I am as an individual, a co-worker, a professional. She encouraged and admired my strengths: website design, video editing, technology. She also supported me when I rediscovered my weaknesses, spelling and grammar.

The days we spent together were honestly exhausting. Schmitz has a very loud, exuberant and verbal personality, whereas my personality is much more quiet and calculated. Our time together taught me to appreciate the characteristics that I do not possess. Her positivity was contagious and her enthusiasm for mindfulness engaged me more intensely than any of the literature I had reviewed. In the end we made a great team.

Continual learner. While gathering literature for chapter 2 I re-engaged my love for learning. This project gave me the opportunity to dig much deeper into a topic then I have since my undergraduate experience. Initially some of the books that my content advisor gave me seemed extremely daunting; especially Jon Kabat-Zinn's *Full Catastrophe Living* which consisted of 650 pages. Luckily it was surprisingly accessible and drew me in, one page at a time.

Unfortunately because I always seemed pressed for time, I was not able to explore the practices as much as I would have liked. It was not enough for me to just simply read the practice; I wanted to stop and genuinely utilize the practices in order to truly understand how they worked. To do this I would have had to set aside an exorbitant of time to work through the literature, also adding time to develop my own mindfulness practices. Now that I am no longer under a time crunch I hope to go back and truly process through many of the practices described in the literature. I do not see myself moving on to a new topic, but instead continuing my education in mindfulness practices, which will include adding what I find to the website.

Professional growth. Throughout my time as a professional I have had to transform my role from working with students, to working with staff. After five years of experience in the classroom I had began to truly develop my persona as a teacher. My social anxiety was under control as I had become comfortable with my role and responsibilities. The techniques I had learned to cope with my social anxiety transferred into my role as a teacher, and I had become much more relaxed when it came to teaching students.

When I switched over to teaching adults and running large meetings my social anxiety crept back up. There were some techniques that I would use before full day meetings, like listening and singing along to my favorite songs on the drive. However, working in the district office brought different stressors then when I was in the classroom. I had not fully realized how much stress I was carrying around in my new role

until I started to experience major pain in my neck and shoulders, where stress normally resides.

After the pain escalated to a point that I needed to visit a professional last summer, I knew things had to change. When I began working with Schmitz on this project I was able to practice mindfulness with her as we worked together. I noticed a change in how I thought about things that were bothering me and began to live and think more about the present moment, not dwelling on my past irritations or future stressors.

One practice that I began based on my work with Schmitz was engaging in the Lion's Breath when I felt the tension building in my next and shoulders. This breathe practice requires the practitioner to focus on the breath through multiple lion like breaths. To do the Lion's Breath you stick out your tongue and exhale loudly, almost as if you were roaring like a lion. This specific practice relaxes tension in the neck and jaw, while grounding through focused awareness on the breath. I used this practice throughout the day while working on my computer to help reduce the stress and tension from working in this position all day.

This project has given me a new tool to use in not only my personal life but also to help support my professional growth. Though my literature review I found so many practices that I am hoping to integrate into my personal and professional life. Mindfulness seemed so overwhelming at first but now after completing the project I know I need to let myself dive in and begin practicing mindfulness non-judgmentally.

Project Characteristics

I created my website in the fall of 2017, from September to December, using the district web manager Blackboard. My website was designed for staff, students and parents as a resource to access mindful practices. Before publishing my website I had multiple colleagues test the navigation from webpage to webpage to evaluate the accessibility. This review produced no errors, but several suggestions emerged about the hierarchy of link importance within the navigation as well as a vocabulary change from teacher resources to staff resources.

I utilized the *Research-Based Web Design & Usability Guidelines* (2006) to design my website. Specifically the criterion I focused on were rated fours and fives, with five being the highest in relative importance and strength of evidence. This included focusing on useful, engaging content, positive homepage first impressions, colors that are visible for those with disabilities, consistent page alignment, no horizontal scrolling, and matching the link names to the target pages.

It was relatively easy to double check the design when it came to the alignment, colors, and correct links. For alignment I ensured a consistent pattern was followed on all similar webpages. This means centering titles and videos, while left aligning headings and bulleted lists. To ensure that color usage was not used to convey information alone, prohibiting visualization of the content for those with a color deficiency, I only used the district colors of purple, blue, and yellow along with black and white for all text. I

enlisted the support of several colleagues and family members to double check the links

and target pages. Errors were corrected for consistency.

Ensuring the content was engaging, the home page left a positive impact and there

would not be a need for horizontal scrolling was a bit more difficult. With many different

electronic platforms it proved difficult to ensure that every platform would not need

horizontal scrolling. When viewing the website on a mobile device Blackboard adjusts

the website app layout and can distort some of the features of my website. Unfortunately

this is out of my control, as it is a platform automation. To increase engagement, videos

and GIFs were used wherever possible to animate the content and draw people in. To

evaluate the impact of the home page and the engagement levels of the content, I

previewed the website to several of my colleagues. Their feedback was taken into

consideration on how to make a lasting impact with the home page, and what material

would make the content more engaging.

Throughout the entire website creation I ensured adherence to the guidelines

selected. I went to great lengths to ensure consistency in color, alignment, size, and

common outline. Regrettably, on the day I published the website I was contacted by the

district communications department in regards to the district website policies.

Apparently, when the district website was transitioned over to Blackboard from a

previous platform, during the summer of 2015, new policies were put into place. These

policies were originally created to rein in those in the district who were utilizing every

color in the rainbow, irregular fonts, and sizes.

To create a uniform district website it was decided that only black text could be used, besides the webpage title. In addition, only left alignment could be used. Lastly only two sizes of text could be used; heading and normal. On publishing day the communications department informed me that they would be going through my nineteen webpages to remove all of the research-based formatting I so carefully crafted. To say the least, I was upset. Luckily I was able to convince them to leave my formatting until my project was finished and graded. In the meantime my content advisor, the district Mindfulness Educational Specialist, and I will be bringing the website in its current format to leaders in our district to demonstrate that sometimes district policies need to be changed. We need to convince them that reining in the creative freedoms of our district web design might have been taken too far, and that formatting beyond the left adjusted and black text does not mean design chaos.

Through the design and creation process I became a self taught Blackboard proficient web manager. Although I had created several website in the past, on both Google and Wix, my content advisor and I decided it would be best to house the mindfulness website on the district platform to ensure accessibility and ease of navigation. Additionally this would ensure upkeep of the webpage in the future. In the end I learned the importance of asking district policies ahead of starting a project, to ensure compliance.

Revisiting the Literature Review

The research that was reviewed in chapter two was much of what influenced the content of the resource materials that were included in my website. Many of the books that I reviewed were included as parent and teacher resource links on the website due to their readability, and inclusion of practical resources. The other spectrum of the literature review were the neuroscience and scientific studies. These were not included on the website as resources as they did not specifically provide students, staff or parents with approachable mindfulness resources.

This project allowed me to dive deeper into the literature pertaining to the mindfulness movement. One of the mindfulness books I borrowed that I am now going to buy is *Full Catastrophe Living* by Jon Kabat-Zinn. Regularly I would hear my content advisor, Mary T. Schmitz, refer to his work. She talked about him with such high regard. At the time I did not know how influential he had been to the mindfulness movement.

I have gone back to review different parts of his book through the project and now catch myself rereading the sections on continuing the practice and integrating mindfulness into daily life. Kabat-Zinn (2013) describes this struggle perfectly. He believes that "the challenge is to make calmness, inner balance, and clear seeing a part of everyday life [...] we can attempt to bring moment-to-moment attention to the tasks, experiences, and encounter of ordinary living" (p. 149). Although this book was one of the thickest and most intimidating of the bunch, it was surprisingly readable and had real life practices embedded into the text.

I honestly did not read all 635 pages of *Full Catastrophe Living* (2013). Section IV of Kabat-Zinn's book details the applications for working through life's stressors with mindfulness. He describes mindfulness applications for dealing with physical pain, emotional pain, fear, panic, anxiety, and a variety of other stressors. If I had had additional time I believe that these applications of mindfulness practices would be a beneficial addition to the website. There is so much out there that I was not able to get on the website which I encountered in my literature exploration.

Additionally though the literature review I found two books which I will be recommending to anyone I know who has children of their own. I found myself wishing I had a child so that I could begin using these mindfulness practices throughout their developmental years. The first is Siegel and Bryson's *The Whole-Brain Child: 12 Revolutionary Strategies to Nurture your Child's Developing Mind* (2012). This book I would recommend for new parents.

I remember half way through the project I was babysitting a friend's children, a boy, age two, and a newborn girl. At bedtime the boy had stripped down to his diaper and refused to put on his pajamas. Although I was finally able to get him into his pajamas and in bed, it was a struggle. The next day I was reading *The Whole-Brain Child* (2012) and came across a section that talked about engaging the body through mindful movement. The cartoon on the page depicted a little boy who was refusing to get dressed and two frames of the parent reacting, one mindfully the other not. I identified with the frame depicting an adult, frazzled and yelling at the child to get their clothes on. The mindfulness frame showed the parent engaging the child's body through jumping jacks in

between putting on pants and shirt. I kicked myself, knowing that if I had read this page only a few days earlier I would have been able to be mindful about the situation, and probably would have handled the situation differently.

The second book I am going to recommend to friends, is specifically for those who have teenagers at home. Siegel's *Brainstorm: The Power and Purpose of the Teenage Brain* (2013) focuses on, what some say is the worst part of parenting: the teenage years. Although I did not use as much of Siegel's second book as I did the first within my literature review, the contents drew my attention, as those around me have struggled with how to best raise a teenager in today's busy world. Siegel (2013) tackles many difficult to discuss issues like puberty, sexuality and relationships. He provides detailed 'Mindsight Practices' for both parent and adolescent.

Brainstorm (Siegel, 2013) and *The Whole-Brain Child* (Siegel & Bryson, 2012) included many usable mindfulness practices that could be utilized by a parent and even teachers when dealing with a growing child. I will be recommending both to parents that I engage with professionally and personally. Through the literature review I was able to put together a little library of mindfulness literatures. On the final website there are two sections in which I have made mindfulness literature recommendations for both parents and teachers. These books were not all utilized in my paper or project but include resources that will help further the practice of mindfulness.

Implications

When the Minnesota Department of Education rolls out the social and emotional learning competencies, learning goals, benchmarks and sample activities, school districts will be required to implement additional curriculum into the school day. One way in which I see our district fulfilling these requirements is through the additional implementation of mindfulness across the district. This will require additional trainings, support and resources.

Mindfulness practices can be used at all tiers within a Multi-Tier System of Support, which supports the intervention of students at three scaffolded levels. Different practices can be used within the core curriculum, in small groups, or for individualized practice. I would advocate that all buildings begin to integrate mindfulness practices across all classes. I do not believe that mindfulness should be the only social and emotional curriculum we use within our district, but I do believe that because we have such a strong content expert we should utilize her skills to spread the practices.

Limitations of the Project

There are many limitations to the resource website. I did however try and eliminate as many of these barriers as possible. For example, keeping the website integrated into the district's web platform meant that I did not have to pay for an outside web page that could at some point expire, thus eliminating the resources. This means that

the mindfulness resources will be available until the district decides to change these pages. There are however a few limitations that were unavoidable.

The first was talked about earlier in the project characteristics, where I described the conflict with our communications department. They have limited the website's format to black text and left alignment. Through my research on website best practices, I designed a website that did not abide by these district requirements. I am hoping to convince the district that the design on the mindfulness website is research based and should remain the way it is presently. Hopefully this does not become an additional limitation if I am required to change the formating.

Another limitation is that when finding resources I had to be extremely careful to not include resources that contained religious content. As a public school we are vigilant to not include any content that might be affiliated with any religion. All of the children's books and applications had to be screened for religious content. This meant that some excellent resources were not included, because of their connection to a specific religion. To be safe, my content advisor and I created a disclaimer that was included in the website indicating that we had taken great care in vetting the resources, but that developers may change their materials.

Additionally, we have seen many visitors within the first few weeks of the website going live, the rate at which the page is viewed decreased dramatically after the first few days of promotion. This website is limited to it's location, as it is embedded into the district webpage. This means that someone searching for a mindfulness resource

website might not find it because it is buried deep inside of another website. The videos on the other hand, might be more accessible as they are originally uploaded to YouTube and not solely visible on the resource website.

Another limitation is described by Kabat Zinn in *Full Catastrophe Living* (2013), is that mindfulness cannot be taught unless the teacher is also a practitioner. This is why I included both students and staff in the context of this project. Staff cannot bring mindfulness to their students unless they are first experiencing it themselves. This is a limitation because some staff will want to bring mindfulness to their students, or are required to by building needs, but do not actually participate themselves. The kids will know that the teacher does not even believe in the practices, so why should they participate and further their own mindfulness practices. I think this will be one of the largest barriers in the implementation of these resources and thus limit the impact of mindfulness interventions and practices being used from the website resources.

Next Steps

On the first day that the website was published, the main page saw 219 visitors. Within the first two weeks that number rose to 280 visitors. Combined the nine videos were viewed a total of 104 times on that first day. The traffic seen this early in publication makes me believe that this will be a well used district resource. This however is not the end of my journey. Content will continually need updating and new practices will need to be added. In addition to the website maintenance, my own mindfulness practice will need to be continually engaged and maintained.

Additional videos. While working with my content advisor to create the videos we realized the expansiveness of all our options. In the end we ended up creating her most used practices that she brings to staff and students across the district. There are however, many other practices that were not recorded during my project semester. It is my intention to continue to schedule filming days with our district Mindfulness Educational Specialist to create additional practice videos.

To help guide the creation of these videos we will review the YouTube analytics on the practices that are already being viewed. Specifically we will look at timing of when viewers stopped watching, and use those results to create similarly timed videos.

Future research. My project did not include any analysis on how mindfulness is actually affecting mental health in our district. In the future it would be interesting to see how mindfulness practices are affecting the mental health of students and staff. As we train additional staff it would be good to track what practices are being used across the district.

Not only would we need to evaluate the mental health of students and staff but also would need to measure the mindfulness levels for comparison. Some buildings in my district have staff who are extremely involved in integrating mindfulness into the school environment, and others do not. One tool that is used to measure mindfulness is the 39-item Five Facets of Mindfulness Scale (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). This tool is used to evaluate five skills: observing, describing, awareness, self-judgement and reactivity. Another tool is the Mindful Attention and Awareness Scale

(Brown and Ryan, 2003). This tool focuses on evaluating the changes in the regularity of mindful states. Either of these tools could be used to evaluate our district's overall mindfulness rating.

It is difficult to track mental health with all of the privacy policies that prevent sharing student information. One way that we may be able to see the impact of mindfulness with students, is the amount of students that are utilizing our mental health services and support groups. We have many co-located services that come into our buildings to help students with mental health issues, along with a variety of staff-run support groups. The attendance and usage of theses services could be tracked in order to analyze their usage.

Another way that we could check in on the impact of mindfulness is through staff climate surveys. Every year staff are requested to take a staff survey on the climate of their building and their relationship with administration. To analyze the impact of mindfulness on the mental health of staff we could use the changes in this survey, along with the knowledge of how mindfulness is being used with staff at that particular building. We already have some staff communities who are using mindfulness regularly and it would be interesting to see how this has impacted their mental health both personally and professionally.

One last thing I would be very interested in testing is integrating a mindfulness program for our new teachers.   Remembering back to when I was brand new, I did not have the support I needed to begin developing my teacher persona, in addition I was

extremely stressed about my new role. I know that our new teacher induction team works with staff members throughout the year, and has been introduced to mindfulness techniques; however, I believe this was more for student practice instead of self-practice. It is great that the current training includes bringing mindfulness to the students, but with teacher burnout rates I think it would be even more beneficial to help those new staff develop their own practice.

Personal practice. In my own life I want to take the next steps to developing my personal mindfulness practice. Throughout the project I realized that I was trying to bring these practices to others without entirely practicing them myself. I want to begin to develop a mindfulness routine for myself to help with my own mental health.

As part of my work with the district Mindfulness Educational Specialist I have been designated a Mindful Mentor for my building. As a Mindful Mentor it is my duty to continually improve not only my own practice, but also those of the staff and students in our district. We will meet up to four times a year as a larger group of Mindful Mentors to develop our knowledge of practices and share our success stories from across the district.

As the Mindful Mentor at the district office I hope to help other staff members develop their own practices. Part of my goal is to bring back more regular mindfulness meditation breaks for any staff to attend in the district office. This will require me to continue to expand my knowledge of practices.

After this project is over I will be attending the final two courses to finish my Yoga Calm training through our district professional development options. I look forward

to the refinement of my understanding of Yoga Calm as a form of mindful movement that can be used for my own practices and can be taught to others in our district.

Final Thoughts

This chapter provided reflections and conclusions on the process of creating a district resource website to answer the question, *what impact does mindfulness training and practices have on the mental health of staff and students?* This capstone project affected both my personal and professional life throughout the research process. The finalized website is just the beginning of my own mindfulness journey, as I intend to continually learn more and build on my own mindfulness practice. It is my hope that through the creation of this website, those in my district who were skeptical like I was about mindfulness, will have their eyes opened to all the possibilities of integrating mindfulness practices into their professional and personal lives.

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