

Improving Behavior By Implementing In-School Meditation/Mindfulness Interventions.

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ABSTRACT

The purpose of this study was to determine the extent to which mindfulness activities are currently being used in a Baltimore County Middle School. The study was used to determine if mindfulness interventions were being used and to what extent. The measurement tool was an observation sheet created by the observer. The observation sheet was used to collect data in relation to mindfulness interventions being conducted in the classroom setting. The study was used to determine if mindfulness interventions could decrease negative behavior in the classroom. Research in the area of mindfulness interventions should continue.

CHAPTER I

INTRODUCTION

Mindfulness is an innate awareness of one's own presence. The ability to be fully aware of what one is feeling and sensing, by paying attention to our surroundings and the present moment. This practice allows one to pay attention in a specific way, to remain focused and to not be judgmental. Mindfulness incorporates meditation, yoga, deep breathing, clearing the mind (Joaquín, 2019).

Schools across the nation are introducing and experimenting with the notion of using mindfulness in their classrooms Which could improve the environment of the classroom for both students and teachers, In part, research on mindfulness has shown that students have experienced 15% better math scores, 24% better social behavior, and 24% less aggressive behavior after practicing mindfulness and meditation (Oaklander, 2015). While the concept of mindfulness is not new, it is only recently receiving attention in school districts. Mindfulness, often practiced in Buddhist religion, and similar to prayer, is being introduced into schools through an unconventional method of secularization. While it is unconstitutional to teach religion or prayer in public schools, some districts are circumventing the terms and referring to the practice as “scientific” or “neuroscience” (Brown, 2014). This allows for the same concepts of Buddhist basic classes to be taught in public schools.

A survey completed by The Association of Teachers and Lecturers, reports a rise in children with emotional, behavioral, and mental health problems. According to the article, some of the reasons have resulted from lack of a positive role model at home, low self-esteem, attention seeking, and family breakdown (Townsend, 2013). The techniques of mindfulness and meditation are used in stress reduction, to decrease anxiety and increase positive thinking. The concept is being incorporated into school systems, colleges and the work place. The outcomes of teaching Mindfulness in schools, may have positive results, such as, kindness, compassion, patience, better listening skills, and improved executive functioning for students (Wertheim, 2017).

In Baltimore alone, a quarter of the residents are living below the poverty line, eighty percent of students qualify for free or reduced lunch, and are subjected to violence on the streets every day (Bloom, 2016). These students are homeless, living without electricity and see an influx of crime occur in their neighborhoods on a regular basis. Stress can be especially difficult for children, as they have not fully developed a stress response system, children exposed to violence, neglect, and instability are more likely to develop health and emotional problems. One school initiated Quiet Time, which consisted two 15 minute periods of quiet time and relaxation, after the study, it was determined that students had higher self-esteem and more confidence, while suspension rates dropped, and graduation rates increased (Novak, & O'Keefe, 2017)

In addition, some students present with Attention Deficit Disorder, Depression, Post-Traumatic Stress Disorder, and Anxiety, all leading up to an increase in problem behaviors in the classroom. These problems include violent outbursts and associated behaviors, office referrals,

bullying, threats amongst students and teachers, and suicides. Depression is the most common mental illness. Depression can lead to many other health problems, and those experiencing depression can fall into relapses. Psychologists are looking at ways people suffering from depression, can disengage themselves from the negative thought process, that often accompanies depression. They are doing this by the use of Mindfulness-Based Cognitive Therapy (MBCT), a recent study found 84 people whom were in remission from depression, could help recurrent depressive issues, with Mindfulness-Based Cognitive Therapy, as well as, medications, and better than a placebo (Lu, 2015).

The consequences of these behaviors can lead to individuals, including the teacher, becoming harmed, destruction of property, suspension, students being expelled from school and a continuation of violent behaviors throughout the students' life.

The behaviors identified previously can lead to a disruption in teaching and learning. According to FutureEd, suspending students from school does not prove to benefit the student, or their peers, The article goes on to state, behavior cannot simply be changed by removing the student from the class, "Indeed, district-level policy reforms designed to reduce the use of suspensions should be coupled with intensive school-level supports for schools struggling with the most with student misconduct." (FutureED, 2018, p.1)The concept of suspending or removing a student from class, instead of providing in class meditation, using Mindfulness techniques may prove to be detrimental to the student's future. This may also lead to students having a lack of education and not being able to find jobs to support themselves as adults. This issue is of utmost importance, as students may be able to change the outcome of their lives and futures, with the use of mindfulness interventions and self-care.

Research based on the effects of mindfulness interventions, concludes that the use of daily mindfulness practice has aided in a reduction of stress, and health related conditions, such as lowering blood pressure, decreasing anxiety, improving cognition, and aiding in the treatment of depression (Cho, 2016). There is also an association with reducing brain distractions, and improving self-image. The simple idea of a Mindful Meditation Room, was introduced in one Baltimore City School. This brightly lit room, filled with pillows and essential oils, became a safe haven for many struggling students. This simple addition to the school environment helped students to channel their anger by doing yoga, stretching and deep breathing. In turn, the results were positive, students apologizing to each other for arguments, an increased level of confidence and students being more peaceful and ready to do their work (Bloom, 2016).

In this study, mindfulness and meditation are being observed to determine the extent to which Mindfulness activities are currently present in The Baltimore County School System. This mindfulness descriptive study will include the observation of students during their class period, their environment, temperature of the room, class setting, triggers of behaviors, in addition to, the teachers reaction to the behaviors, the length of time between the behavior, the behavioral modification and possible changes in behavior, after the modification and the types of behaviors and their peer reactions. The observation of Brain Breaks, a Cool Down area, Take Time, and Community Meetings will be observed to determine their affect on student behavior and outcomes. The teachers will be interviewed as to how often they are using these techniques, the outcome of the techniques, and if they have witnessed a decrease in student behaviors, detentions and negative outcomes.

Statement of Problem

Research suggests that the use of mindfulness activities can have a positive effect on reducing negative behaviors in classrooms. The purpose of this study is to determine the extent to which mindfulness activities are currently being used in a county middle school.

Operational Definitions

Negative behaviors are operationally defined as violent outbursts, bullying, threats or harm, destruction of property.

Mindfulness is being aware of one's surroundings, paying attention to the moment, and letting go of negative thoughts. Further, it is defined as the ability to pay attention to the moment.

Mindfulness activities include meditation, yoga, sitting quietly, breathing awareness exercises, gratitude, practice of journaling, and positive thinking.

CHAPTER II

REVIEW OF THE LITERATURE

Overview

The purpose of this literature review was to determine the effects of mindfulness/meditation on problem behaviors in school. Although research is only starting to emerge on this topic, studies have suggested the implementation of a mindfulness program in schools can decrease stress levels, help with depression and anxiety, and reduce problems associated with Attention Deficient Disorder (Dobson, Giles, & Strawn, 2016). These benefits may lead to lower rates of behavior incidents, detentions and suspensions, which negatively impact school achievement.

Stress levels in teens have undeniably increased in our nation. According to news reports, incidents of violent behavior and school shootings have increased exponentially. Since the school shootings at Columbine in 1999, over 187,000 students, in 193 primary and secondary schools, have experienced a shooting during school hours (Rich & Cox, 2018).

Mental health issues, such as depression, anxiety, and Attention Deficit Disorder are leading to an increase in problem behaviors at school. This has led to the use of more medications to treat symptoms that may manifest as behavior problems at school. A recent study shows in the last two years, the use of medication to treat mental health conditions in children has “dramatically increased” (Dobson et al., 2016, p.1) with common medications, such as Selective Serotonin Reuptake Inhibitors, also known as, SSRI’s, Adderall, and anti-depressants. While these may benefit students with some mental health conditions, research suggests there may also be

additional health benefits, such as, physical, mental, and emotional improvement, from the regular use of mindfulness/meditation in students who require medications. In addition, these interventions may benefit other students, who may not have diagnosed or treated mental health concerns, but who also experience modern day stressors in and out of school. The following research literature provides details of the history of mindfulness, the usefulness of mindfulness/meditative programs in the classroom to lower stress and decrease problem behaviors.

History and Definition of Mindfulness Interventions

Mindfulness practices started around 2,500 years ago. Ancient Buddhists used the practice of meditation to achieve peace and relaxation. However, the first introduction of mindfulness into schools in the United States was in 1979. Jon Kabat-Zinn, practitioner of mindfulness programs, started the first Mindfulness-Based Stress Reduction (MBSR) program for students at The University of Massachusetts (Fossas, 2015). Since then, similar programs have been developed and introduced into schools and healthcare settings around the country, as schools searched for ways to reduce stress and provide a sense of calmness for students.

Research is currently developing in the field of mindfulness, as it is being recognized by more organizations and settings as having health benefits associated with its use. To understand and measure the impact of mindfulness interventions, researchers need to clearly define them and measure the desired outcomes of such programs. According to Kabat-Zinn, “Mindfulness is awareness that arises through paying attention, on purpose, in the present moment, non-judgmentally.” (Mindful Staff, 2017, p.1)“It’s about knowing what is on your mind.”(Mindful Staff, 2017, p.1). By paying attention to one’s surroundings, people may be better able to focus their energy and mind.

Clive, Moria, and Shian-Ling (2011), concluded in their review of empirical studies about the effects of mindfulness “that mindfulness can provide benefits, such as positive psychological effects, such as well-being, improved behavioral conduct, a decrease in psychological symptoms, and emotional reactivity” (p.1). Moreover, they suggest future research take place into the potential health benefits from practicing mindfulness.

Mindfulness in Schools

Some research has looked at how mindfulness interventions can be used in schools. For example, researchers examined data from the school-based mindfulness program, MindUP, which promotes social and emotional learning. The students in the study (DiMauro, 2015) included 100 fourth and fifth grade students. One group received the MindUP training, while the other received social responsibility training. The researchers discovered students in the MindUP program, which only received MindUP training, had a 15% increase in math scores, 24% improved social behaviors and were 24% less aggressive compared to the group who received only social responsibility training. Although the numbers are low, DiMauro felt the increase was a step in the right direction, and planned to do more studies. This study, as well as others, indicated that students who received mindfulness training outperformed their peers in cognitive control, stress levels, optimism, and empathy. This data suggests that mindfulness programs can help students not only cope with stress better, but show empathy and kindness to those around them, which, in turn, makes for a better and safer school environment.

There are various mindfulness/meditation interventions and techniques for classroom use. One is concentrative meditation, which involves the focus on breathing, imagery, or sound, as a way of stilling the mind, and minimizing thoughts. Another method is, mindful meditation, which involves training one's attention to become aware of thoughts, feeling and images, and is a moment-to-moment experience (ReachOutSchools, 2018).

Some specific meditation programs that can be brought into the classroom include Metta Meditation, which helps to cultivate kindness to others. These include *Progressive Relaxation*, that encourages people to find areas of tension in their body and then release the tension. Mindfulness Meditation, that focuses on increasing awareness of one's surroundings. Breathing Awareness Meditation, which encourages mindful breathing and Kundalini yoga, which combines movement with breathing exercises and mantras. A combination of these methods can be part of the curriculum at schools as described below. (Bubnis, 2017).

Educators can also bring mindfulness activities into their classrooms rather easily, by implementing four simple steps: (1) Mindfulness through breathing, can be done throughout the day, or whenever a stressful situation presents itself. (2) Mindfulness can be channeled through sensory experiences, such as, focusing and relaxing, and by listening to calming sounds or music. (3) Mindfulness by movement, which can be done in class, by practicing yoga while seated, or in gym class. (4) Mindfulness through guided imagery can be easily implemented by having students close their eyes and listen, or talk through visual scenes, using their imagination to describe the images. These programs are simple and do not take large amounts of time or other resources. (Shardlow, 2015). Programs in these four areas, can be monitored by a training instructor, such as a teacher, or someone that is qualified to teach the program and modified it as needed.

In order to successfully implement a mindfulness program in a school, teachers need to be properly trained and vested in the program selected, as well as the school. They need to take an active and on-going approach to maintaining the program. The program can be practiced by the teacher, trainer, or through the use of an app. It is notable that using apps may be more suitable for more technology savvy or older students (Bailey Chambers, Hassed, Jones, Owen, & Wootten, 2018).

Some research recommends students have mindfulness sessions four to five days per week. Some educators feel, first thing in the morning, after lunch breaks, or before exams, are a good time to integrate a mindfulness practice. Studies show when mindfulness programs are consistent and practiced throughout the year, they are most effective. (Bailey et al., 2018).

According to researchers, it is advised that a mindfulness program does not conflict with other activities, particularly, ones the students enjoy. This will prevent them from being seen as an inconvenience, or something the students are required to complete at the expense of something fun. Schools and teachers also need to decide on the location of such programs, as they typically require a quiet setting for effectiveness. In addition, consistency of time and location is important. Research proposes that when implementing a program, time intervals for primary stu

dents, should be one 30-45-minute teaching session per week. For secondary students, one 45-60-minute teaching session per week is suggested. (Bailey et al., 2018).

Summary

Mindfulness is a practice of meditation, paying attentions to one's surroundings, being aware of your thoughts and movements that is thought to impact self- regulation, feelings, behavior, and the practice of kindness to others. Mindfulness can be used in schools to decrease stress in students and teachers and may help create a calmer, more welcoming environment and reduce challenging behaviors that currently disrupt classrooms and attainment of educational goals.

Many mindfulness programs can be started and maintained easily by teachers and do not require a significant amount of time throughout the day. Research suggests in order to be effective, programs need structure and sufficient and consistent time intervals for practice, and can be modified as needed. Behavioral problems with students lead to problems in, and out of the classroom. Mindfulness may possibly lead to a decrease in behavioral concerns and a decrease in violent behaviors in schools (Koch, 2016). Given the possibilities, further research is warranted.

CHAPTER III

METHODS

Design

The design of this study was descriptive in nature and was intended to determine the extent to which mindfulness activities were being used in a Maryland Public School. This school was chosen because the researcher had access to the school. It is a general education school with a less restrictive environment. The school does not have any self-contained programs. The school has push-in and pull-out services. The enrollment of the school is 645 students. This school provides outside counseling services, which can provide assistance with Medical Assistance, intake conferences, and mental health screenings, for students and their families. This school has 2% of the population of students with emotional disturbances. The school currently has seven homeless children, living in hotels or shelter settings, which they shuttle back and forth to school.

The study consisted of observation of various levels of grades in the school system. This school practices some designs of Mindfulness, such as Brain Breaks, Cool Down Time and Reflection Time. The observation occurred during normal conditions and in regular classroom settings. The data was collected by the use of an observation spreadsheet, which gathered information by means of observation of students, during class time. The observation was intended to monitor if Mindfulness procedures were being used to alleviate negative behaviors, such as outbursts, anxiousness, and impulsive behaviors in school.

Participants

The participants consisted of Kindergarten, second grade, third grade, fourth and fifth grade students. There were 145 students observed during this study. The participants were male

and female, from various economical backgrounds. There was diversity within the classroom. The participants ranged in age from five-ten years old. The school contains ninety-seven students with Individual Education Programs (IEP's). There are five students that require adult supports and twelve students that have a functional behavioral plan of assessment. The observed cohort consisted of 18 kindergarten, 25 second grade, 28 third grade, 26 fourth grade, and 41 fifth grade students.

Instruments

The instrument used for the study was an observation spread sheet, which was created by this observer to collect data, with the intention of observing mindfulness techniques in a classroom setting. The observation sheet collected data pertaining to the number of students in the class, how the class was arranged and set-up, the temperature and conditions of each classroom, and lightening. It examined the interventions in time intervals, prior to, and after, a behavioral occurrence, and the length of time between the behavior, and the intervention being applied. It also included identification of any triggers that may have led to the behavior occurring and the teacher and peer reactions to the behavior. An additional section evaluated how the school's mindfulness techniques were applied, and the type of interventions within each. Lastly, the observation sheet included data from individual interviews with teachers regarding the behavior of their students, times of the day disruptive behaviors increase, what intervention they feel works best, and their interest in using mindfulness techniques. This was not a normed reference test. Please see the condensed version of this spreadsheet in Appendix A.

Procedure

The observation was performed under normal classroom conditions. The observer sat in the back of the room and monitored the students interactions and behaviors. The observer was monitoring for Mindfulness techniques applied by the teacher. The classrooms were designed in a large, sectional room with a partition wall separating classes, additionally, classes were conducted in a trailer setting. The lighting in each room was florescent lighting. The temperature was set in the sixties and the room was cool. The students desks were grouped with six-seven students per group. The rooms had a large rug on the floor that was utilized for floor time discussions. Four of the six rooms had a Cool Down area with a desk containing sensory items, a wellness chart to determine mood level, and pillows. The observations consisted of six class periods. The observer did not interact with the students. The students were sent to the cool down area, or required a Brain Break. The use of Mindfulness, such as, breathing techniques, meditation, silent sitting, and time to clear one's mind were observed, in this setting, for usage, how often techniques were being used, the length of time in which they were applied. It was also noted the student's reaction prior and post the use of a Mindfulness procedure. Additionally, teachers were interviewed to determine how often they use the Cool Down room in their class, allowing time for Brain Breaks and practicing Mindfulness interventions in their class. The information will be recorded on the spread sheet for the use of the Mindfulness study. The information was recorded by means of observing the class and writing data material as it was occurring in the classroom.

CHAPTER IV

RESULTS

The purpose of this study was to determine the extent to which mindfulness activities are currently being used in an Baltimore County Middle School.

Mindfulness Observations

Each of the grades observed showed various levels of mindfulness activities in use. The kindergarten class had a floor mat for discussion and class time. The second, third, and fourth-grade classes had a separate desk area for Cool Down Time and Think Time. Two of the fifth-grade classes had areas with pillows in the corner, for reflection time. Classes were observed for two days, within a seven-day timeframe.

The school uses mindfulness techniques, such as Brain Breaks, which consists of allowing the student to have a self-guided activity when the student feels overwhelmed, frustrated, or if they need a break. The activities consist of reading, coloring, or drawing. They also have Cool Down Time, in which students can sit in silence, use sensory items such as pillows, or tactile items, or complete a mood chart to determine their feelings in the moment. The mood chart is a way for students to gauge their emotions and feelings, often by circling smiling, sad, or frustrated faces, or emojis.

In addition, the class participates in community meetings, the students and teacher can talk openly about things that may be upsetting, challenging or, interesting, such as upcoming birthdays or events, as a way of uniting the students together. The observer witnessed all of these mindfulness interventions taking place, at various times throughout the day.

The kindergarten class consisted of 18 students. Observation period A, showed the students worked well together, under the guidance of the teacher. The students did not have any outbursts toward each other, but did display occasional distractions to each other, such as touching each other, or trying to get another's attention while on the floor mat. This observer witnessed the teacher used verbal cues to gather the student's attention.

Student 001 became upset after being asked to report to the floor mat, which resulted in the student walking around the room, then crumpling his paper and throwing it in the garbage. The teacher engaged the student with verbal cues and hand gestures. This observer witnessed the teacher providing verbal cues consisting of calling the student's name, asking the student why they were not sitting with the others, and providing feedback on her feelings about the student not listening. The student voluntarily came to the mat after five minutes. The teacher did not display mindfulness acts, rather hand and verbal gestures to correct problem behavior. Observation Student 002 showed that the student started to scream and cry very loudly, the student was sent to the Cool Down area for approximately ten minutes, student's screaming became louder and he started to hit the wall with his hands.

The second grade class had 25 students. The observation Period B, consisted of multiple students with challenging behaviors. This observer witnessed Student 003 hiding in the corner of the room where he would occasionally look out at the class, then continue to place items around himself. During an interview with the teacher, she stated she did not know what caused the incident for him to hide. The student voluntarily returned to his desk after forty minutes and began to do his work. He later informed the teacher that he went into hiding after an altercation with another student over a seat. It was observed that the student did not use any mindfulness interven-

tions or sensory items, rather he sat silently on the floor, occasionally looking out at other students and the teacher.

During this observation period, Student 004 became disruptive to the class, he walked around the class without permission, did not follow any verbal cues or hand gestures. This student was witnessed starting to distract other students, as he was making noise. He voluntarily went into the cool down area and began to use the sensory items, as well as drawing. The students used sensory items, such as, a pillow and a water-filled object with glitter, as tactile items.

The Student 004 spent fifteen minutes and returned to his desk. After the cool down intervention, the student appeared less anxious, less impulsive and was ready to work and in addition, he asked if he could assist the teacher in the assignment. Student 005 was observed crying and threw his lunch on the floor in the cafeteria, upon observed interventions from the principle, student stated he was upset due to not getting a snack in his lunch. After positive verbal interventions from the principle, the student ate lunch in the principle's office, returned to the class and appeared calmer.

Upon an interview with the teacher, she stated she uses the cool down area and brain breaks, a couple of times per day, as her students exhibit poor coping skills, being overwhelmed, impulsive and aggressive. The teacher reported positive results from using these techniques and stated the students are usually calmer after the interventions.

During observation, Student 006 turned his desk onto the floor and threw everything out of his desk onto the floor, kicked it, and yelled. The student was ignored until the situation required intervention, the student started yelling, stating he was overwhelmed and did not understand the work. The student was given the option to go to a different teacher's room; student vol-

untarily chose to go to the art teacher's room. Student's behaviors stopped within twenty minutes of intervention.

During observation Period C, the third grade class did not yield any results in the use of mindfulness interventions. Areas were present in the class, such as a separate desk with a mood indicator chart, a feelings chart, and a reflection chart, which allows students to determine their level of mood, whether they are feeling, happy, sad, angry or anxious, they can circle their current mood. Additionally, they had a yoga mat, and pillows. The class had 28 students. The students worked well together and showed no signs of needing interventions, upon request, or voluntarily. Upon interviewing the teacher, she stated that many students use mindfulness techniques one or two times every other week. She stated she feels it produces positive results for self-regulation.

The fourth grade class had 26 students. During Observation Period D, the students worked well with each other in the groups, however, multiple students needed cueing to remain on task. The witnessed cues allowed reminders for students to settle down, get their materials on their desk and to start working on their current assignments.

The teacher needed to redirect the students four to five times prior to class starting. During an interview with the teacher, she stated her students become anxious, noisy and disruptive during the afternoon. She needs to use Think Time interventions five to ten times per week. During the observation, students did not require any interventions, such as Think Time, or Cool Down Time. The Think Time area is used for self-reflection and meditation time to give the student time to clear their mind and return to their work area refreshed. The students did not require

any time for self-reflection, on their own, and did not need any time to cool down from an angry or disruptive moment.

Additional observation data showed Student 007 crying in the cafeteria, after spilling her milk. Another student approached the student to check on her, subsequently, student pushed the other student. When the principle approached Student 007 to ask why she pushed another student, the student stated she did not feel the other student was being helpful and felt the student was uncaring about the situation. After verbal interventions and positive talk, the student calmed down.

During the fifth grade science class the students in Observation Period E were loud and disruptive, upon entering class. There were 17 students in the class. The class had an area with pillows, as a cool down area. During the interview with the teacher, she stated that she has not had to use the area with her current students and her students respond to verbal cues. There were no observations of mindfulness activities during this observation.

During the second observation of the fifth grade class, Observation Period F, the teacher explained during the interview that he has a combination of high and low functioning students. This class had 24 students. The teacher stated, while he is giving extra support to the lower functioning students, the higher functioning students have finished their work and are becoming disruptive. This teacher was observed using multiple verbal cues and the student's behavior stopped within five minutes.

During this observation, multiple students required verbal cues due to talking amongst each other during the assignment. The verbal cues consisted of the teacher keeping the students on track for the completion of the assignment, as students were talking to each other. The teacher

needed to provide cueing one to two times during class. The teacher stated that he rarely uses any mindfulness interventions and is able to maintain the students attention through verbal cues, or clapping his hands.

In summary, the study consisted of two days of observations, with class period observations. The study consisted of nine observations of behavior that required verbal or hand cues, Cool Down Time, a Brain Break, or positive talk intervention. The behavioral problems consisted of students, having verbal and physical outbursts during class time. The observations revealed that mindfulness interventions are being used in this Baltimore County School that appear to yield positive results.

The mindfulness intervention yielded seven witnessed episodes of mindfulness techniques being used. This consisted of Cool Down Time, for students experiencing angry or disruptive moments; Brain Breaks, for students requiring a needed break from feeling overwhelmed or anxious, and verbal cueing, in which students needed verbal commands to get work completed and to stop disrupting class time. The results included students appearing to be calmer, less stressed and anxious, and returning to their work assignments.

The study did not include methods of mindfulness, such as meditation, breathing exercises and yoga - which consists of sitting quietly and allowing one's mind to be clear, breathing techniques to alleviate stress and produce calmness, and yoga, which is kinetic movement for stretching and circulation. While mindfulness was being used, the observer did not see as many mindfulness interventions as anticipated. During interviews with the teacher, none of the teachers appeared to be open to using those methods.

The observation indicated that younger students would benefit from mindful interventions, such as cool down time, reflection time, breathing exercises, and meditation, as they were experiencing higher levels of anxious behavior, feeling overwhelmed, crying, impulsiveness and disruptions. Whereas, the upper level students appeared to respond to more verbal cueing and hands gestures.

The researcher would recommend the Baltimore County School System initiate a mindfulness program that incorporates mindfulness activities at the beginning of class period, or when a behavior warranted it. These interventions could consist of five-minute breathing exercise, or five minutes of silence sitting to clear one's mind, including stretching and yoga. The researcher would suggest students participate in yoga, or kinetic movement that provides a sense of calmness and promotes well-being.

During this action research study, the researcher observed nine behaviors, which could have benefitted from mindful interventions. Each has been described previously. As a result of the observations conducted in this study, it is evident that some students have had sufficient exposure to mindful interventions to self-initiate such an intervention themselves to calm down.

A final conclusion reached as a result of this observational study is that mindfulness interventions could easily be incorporated in the school system. The mindfulness interventions would not cut into valuable curriculum time and could benefit students' overall physical and mental health. Mindfulness interventions could be provided by trained teachers, trained professionals with access to class time, or by the use of an app. One study conducted using the app, "Headspace" in which, one group listened to ten mindfulness sessions, on this app. Over the course of a month, the participants reported feeling more positive emotions, and less burdened by

external demands, after 100 minutes of practice (Newman, 2018). The use of regular mindfulness interventions may result in students being happier, having greater productivity, and an overall greater appreciation of life (Roberts, 2012). To secure students well being, mindfulness should be part of their day-to-day practice.

CHAPTER V

DISCUSSION

Implications of the Results

The implications of this study determined that mindfulness activities can have a positive effect on reducing negative behaviors in the classroom. The classroom observation and behavioral intervention indicated that, after the use of a mindful activity such as cool down time, or a brain break, the students appeared to be calmer, more engaged, and ready to return to their work station. From what this researcher observed, mindfulness interventions has the potential to make students calmer, less stressed, and more positive. The observer would encourage teachers to use mindfulness techniques in their classes, especially in circumstances where students experience emotional problems and disturbances. Teachers may have better teaching outcomes and behavioral management for their students, including better grades, behaviors, less office referrals and detentions.

This data can prove useful to future generations in the classroom as the research shows students' respond positively to mindfulness. Moreover, existing research shows the health benefits associated with using mindfulness, such as a decrease in anxiety, better attention skills at school, especially for children with Attention Deficit-Hyperactivity Disorder (ADHD) and improved cognition. In addition, some research shows children have experienced, better attendance, better grades, fewer suspensions, and are generally happier (Walton, 2016). Considering that mindful techniques are easy to use, and require minimal time, they can be used at the begin-

ning of a class period, when behaviors arise, to ease test anxiety, or as a way of slowing down the pace of the class. Further research suggests, children involved in a Transcendental Meditation group, which consisted of fifteen minute mediation sessions at school and at home, for four months, resulted in an increase in enhanced social skills, improved academics and decreased state and trait anxiety, in children with learning disabilities (Campbell, 2014). Furthermore, the mindfulness techniques that can be taught in school, can be applied and practiced at home, especially for students who may be experiencing a difficult situation in the home environment, such as abuse, parents who argue, or poverty. The self-control, self-confidence and compassion toward self, and others will be an added benefit to the student's future for school, careers, and interactions with others.

Threats to Validity

During this observation, the researcher was concerned attention would be drawn away from the students and onto the observer, therefore, creating unintended behavioral problems, such as attention seeking behavior. The students were aware of the observer's presence, but did not make any attempts to openly draw attention or create problems in association with the observer's presence. The teachers in this study were not trained in the use of mindfulness interventions.

Connections to the Literature

The findings of this observation correlate to similar information provided in literature. The observer witnessed multiple occasions of students who received mindfulness interventions, and thereafter, calmly returned to their desk, or work area. The students observed appeared calmer, with decreased stress levels, and had better attention spans. Students appeared more pos-

itive and engaged upon their return. In a 2019 study, an eight-week study of mindfulness with sixth graders' showed the students were less stressed, and able to practice self-control. The findings indicated that mindfulness interventions helped students' attention skills and aided in developing mechanisms for better coping skills (Tatter, 2019). An article in Pediatric News indicated that structured mindfulness programs can reduce symptoms of depression, Post-Traumatic Stress Disorder (PTSD), reduce anxiety, provide ways of coping with stress, improve sleep and self confidence, and improve classroom behavior (Howard, 2017).

Further research, implies the practice of mindfulness may increase the connectivity between the amygdala and other regions of the brain, which are responsible for emotional regulation, the ability to think constructively, and cope with feelings and emotions. These connections may result in more resilient children who are better able to deal with their emotions, make sound decisions and not become overwhelmed in school and in their life (Lindquist, 2017). Additional research on brain activity, conducted at Harvard, shows that eight weeks of Mindfulness-Based Stress Reduction (MBSR) was found to increase cortical thickness in the hippocampus, the part of the brain responsible for learning and memory, additionally, in areas of the brain that aid in emotional regulations and self-referential processing (Walton, 2015).

Implications for Future Research

Future research should be conducted with teachers who would be trained in providing mindfulness interventions, such as meditation, breathing techniques, and helping students to clear their mind. The teachers would conduct mindfulness exercises in the class, before class, and in the afternoon. The observer would collect data based on students' performance prior to, and after the mindfulness events occur. In addition, having access to student records to determine

if a decrease in office visits, a decrease in behavioral outbursts and fewer behavioral disturbances occurred during the mindfulness interventions. Future studies on mindfulness could involve a longitudinal study that would evaluate the effects of mindfulness on students throughout the student's schooling, as well as post schooling to determine college and or career decisions, in the future.

Teaching mindfulness may prove to be beneficial to the student's future. As social and emotional well-being play a role in the overall importance of student's health, prevention programs, such as the teaching of mindfulness, can aide in mental health, improving classroom behavior, and enhancing achievement (Barseghian, 2013). Additional benefits of mindfulness that would aide students is reduced rumination, and negative thought process, a reduction in stress, increased focus, and working memory, and more cognitive flexibility (Davis, Hayes, 2012).

Mindfulness is already being taught as part of the regular curriculum in England, while in, New Delhi, India, they introduced a "Happy Curriculum" It is intended to combat mental health issues and a rise in anxiety, depression and mental-emotional challenges. In the United States, programs such as, "Mindfulness Schools" and "MindUp" are training educators to conduct mindfulness in their classrooms (Healy, 2019).

While mindfulness is in it's early stages of research, it has shown positive results in the reduction of stress, depression, and anxiety. Mindfulness techniques have provided encouraging evidence to show increased brain activity, improved mood, and better coping mechanisms. The effects are also favorable for decreasing student's negative behaviors, such as outbursts, verbal and physical abuse, and violence. This may provide for an overall decline in school detentions,

suspensions, office referrals and expulsion. The effects of mindfulness interventions are promising for the future of students and the school system.

Conclusion

In conclusion, the purpose of this study was to determine the extent to which mindfulness activities are currently being used in a county middle school. The observation results showed that mindfulness interventions are being provided in this Baltimore County School, despite it not being part of the regular designated curriculum. In addition, the school does not have trained professionals providing the mindfulness interventions. The observation results did yield that the mindfulness techniques, being used at the school, resulted in overall decreased negative behavior and an improved classroom environment.

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Table 1

Number of students in class								
Class set-up								
Environment								
Time of Day-begin/end								
Prior to Intervention								
After Intervention								

