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The Long-Term Effects of Teacher Participation in Mindfulness-Based Stress Reduction

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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The purpose of this quantitative study was to determine the long-term effects of mindfulness-based stress reduction (MBSR) on student disciplinary behavior, student academic progress and teacher absenteeism within the educational environment, using the theoretical framework of the Pro-Social Classroom theoretical model. Furthermore, by observing the before and after patterns of middle school teacher absenteeism, middle school student disciplinary behavior, and middle school student academic progress, this study addressed whether mindfulness-based stress reduction techniques were beneficial to the teacher professional development process. This study included 75 survey responses from teachers that met the sampling criteria via the Walden Participant Pool, as well as an analysis of historical data collected from the California Department of Education, national Department of Education, and the U. S. Office of Civil Rights. Data were analyzed using a two-way ANOVA via SPSS software. The findings from this study determined that teacher participation in MBSR was statistically significant in reducing student suspensions between 6^{th} and 7^{th} grade students; however, teacher participation in MBSR was not statistically significant on student academic progress between 6^{th} to 8^{th} grade students or teacher absenteeism. When addressing positive social change, these findings can be useful in understanding the place of mindfulness programs in creating more socially and emotionally competent teachers and creating and maintaining positive classroom environments, with the goal to improve overall school efficiency and student assessment performance.

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Chapter 1: Introduction to the Study

Introduction

In the early 1970s, Ellen Langer and Jon Kabat-Zinn emerged with research regarding mindfulness and associated practices as it related to self-preservation. Since Langer and Kabat-Zinn's initial contributions, the definition of mindfulness has evolved based on continued research, but the premise of mindfulness as "actively noticing new things" remained consistent (Beard, 2014). From the research efforts of Langer and peers, mindfulness is the foundation for elements of training in various professional settings with the intent of implementation as an alternative stress management method. Over the past 10 years, several researchers emerged to adopt mindfulness related techniques towards the educational environment. In the efforts designed to improve the overall quality of education, promoting social and emotional competence of teachers is considered an essential component (Jennings et al., 2013). Mindfulness is an active/present state of awareness in which the individual acts in the present and employs processes relevant to the current scenario (Langer, 1989; Langer & Moldoveanu, 2000). To be mindful is to possess behavioral and cognitive control, which allows individuals to perform on a proactive rather than reactive level and allows them to remain flexible when signs of chaos appear.

Teachers play a significant role in student success and overall academic achievement, and some researchers argue that teachers are at the forefront of this crucial phase of development (Vesely et al., 2013). In today's educational climate, teachers face the task of continually shifting their focus through ranges of behavior maintenance and

active educational engagement, while also maintaining the use and impact of technology and information. As a human service occupation, the level of job demands attended to daily led teachers to report their profession as a significantly stressful occupation (Roeser et al., 2012). Teachers who experience higher levels of stress and burnout tend to be more prone to the risk of physical and mental illness, which leads to higher occurrences of absenteeism and turnover (Jennings et al., 2013).

From an interpretation of Langer's contribution to mindfulness research, better performance is an outcome that is a critical indicator of the success of mindfulness (Beard, 2014). Based on the theoretical framework of mindfulness as described by Langer and Moldoveanu (2000), the state of mindfulness is an experience in which the individual can remain in the present, and ultimately engage in problem-solving techniques that are more conducive to creating a positive environment. Langer (1989) and Langer and Moldoveanu further asserted that mindfulness is a state in which the individual has perceived control over a scenario and can act productively to address the problem from a rational state. From this assessment, Langer and Moldoveanu concluded that the more mindful a person is, the more likely they can receive fulfillment from work-related tasks and improved memory function. Both outcomes can produce an engaging and more successful work environment.

Mindfulness-based interventions have become prevalent within the corporate work environment. Branching out further, some educational professionals have implemented mindfulness-based strategies in response to job stress and dissatisfaction with current professional development initiatives for teachers as well as disciplinary

benefits for students. Research shows that giving adequate job and personal resources allow some teachers to respond to negative behaviors positively in their classrooms by being significantly more engaged and displaying higher levels of self-efficacy (Bermejo-Toro et al., 2015).

Since Langer (1989) and Kabat-Zinn's (1979) contribution to mindfulness theory, mindfulness-based stress reduction (MBSR) interventions have emerged in the corporate workspace as an effective method to reduce stress. In the field of education, researchers such as Patricia Jennings and others have contributed to the theory of mindfulness-related interventions in the classroom. Jennings' research (2017) focused on the implementation and efficacy of the Cultivating Awareness and Resilience in Education for Teachers professional development program, also known as CARE. CARE and similar strategies under the umbrella of MBSR are presented as learning opportunities for professionals to reduce stress, anxiety, and depression, and increase well-being (Jennings et al., 2017). For teachers, mindfulness related programs are proposed to decrease stress and burnout, increase perception of self-efficacy, and improve classroom interactions (Jennings et al., 2017). After assessing the impact of the "CARE for Teachers" program on the classroom learning environment from a sample of 224 elementary school teachers, Jennings et al. (2017) further proposed that there is a stronger need for comprehensive research regarding the impact of mindfulness-based interventions on teachers, students, and the educational environment.

Workplace stress is an area that has garnered significant study and research over the years. To combat workplace stress, professionals have sought out methods to address

negative emotional and psychological factors influencing employee behavior. In a traditional work environment, where mindfulness-based interventions initially arose, researchers proposed that these techniques would help boost employee engagement, problem-solving practices, and overall well-being. However, with an environment such as the classroom, where several factors can disrupt instruction and teachers must manage different student behaviors and job responsibilities, introducing techniques to boost emotional intelligence may not be as feasible to implement due to environment inconsistency. Several researchers identified emotional intelligence as a critical component in facilitating stress and psychological strain, particularly reducing its occurrence to ensure more precise focus and concentration (Vesely et al., 2013). When it comes to teaching, Collie et al. (2012), Roeser et al. (2013), and Vesely et al. (2013) proposed that successful teachers are more likely to possess higher emotional intelligence, which translates to enhanced coping skills and decreased stress. Other researchers suggest that mindfulness is a practical solution in assisting teachers with strengthening self-efficacy and perception of well-being, classroom management, and student-teacher interactions (Singh et al., 2013).

There is also a growing sense of accountability for educational leaders to recognize and work to prevent job strain within their teaching staff. The increasing risk of teachers experiencing emotional exhaustion and the reactionary behavior has prompted an analysis of the factors that influence the quality of student-teacher relationships, effective classroom management, and positive student outcomes. Jennings and Greenberg (2009) argued that negative teacher behavior is significantly detrimental in younger

students' experiences because these interactions shape future experiences with teachers and peers. The research behind the mindfulness-based intervention effort in schools supports stronger teacher efficacy and growth and shows that a higher standard of engagement and investment is crucial to quality teacher attraction and retention. When analyzing the purpose of MBSR, focusing on the long-term relationship of mindfulness training and its effects on teacher presenteeism, student behavior and student progress are additional impacted benefits for potential larger applications in reducing teacher stress and burnout. Most research centered around the high quality and self-efficacy of teachers indicate that teachers who possess these behaviors have a positive impact on the classroom environment and student success, directly identifying a significant improvement on positive conflict management skills, positive student-teacher relationships, and extended positive relationships with other colleagues and parents (Frank et al., 2013; Jennings & Greenburg, 2009; Murphy et al., 2004; Yoon, 2002).

Background

Since the introduction of mindfulness-based interventions in the classroom, several studies have shown the short-term implications of MBSR on classroom behavior, teaching styles, and student-teacher relationships, among other variables. By analyzing the pre-intervention environment and long-term post-intervention application, researchers can better understand how mindfulness can affect the classroom when integrated into professional development. Stress management techniques are often taught to professionals through emotion identification, allowing them to control their reaction to stressful situations better and identify a response that is more suited to de-escalate the

situation (Roeser et al., 2013). By researching similar mindfulness impact environments, both Flook et al. (2013) and Roeser et al. (2013) came to the same conclusions. Flook et al. first determined the presence and perception of mindfulness as well as the level of anxiety, stress, and depression. After providing the participants with MBSR training and analyzing the results after a 3-week posttest data collection period, Flook et al. reported that the participants showed increases in teacher behavior and actively reduced attention biases. Roeser et al. proposed that mindfulness training's goal was to address and reduce stress by providing teachers with resources such as mindfulness coping strategies and enhanced occupational self-compassion. By identifying several layers within the definition of teacher stress, Roeser et al. designed a mindfulness training intervention that approached enhancing teaching practices and learning behaviors within schools.

Roeser et al.'s (2013) study analyzed factors such as the impact of mindfulness on focused attention, stress, burnout, and absenteeism, as well as the acceptability and feasibility of mindfulness training program. Roeser et al. found that mindfulness training favored well with participants and showed increased measures of focused attention, mindfulness, and compassion when engaging with students. Before Roeser et al., Franco et al. (2010) analyzed the effect of mindfulness training on 68 secondary school teachers for 10 weeks. The participants were provided with stress reduction and meditation methods and then observed over 4 months to determine if these strategies were useful in the learning environment. Based on the observation, Franco et al. concluded that the mindfulness training provided caused a significant decrease in psychological stress experienced by teachers.

Other researchers have contributed to the understanding of mindfulness-based interventions in the classroom and its impact on teachers. Frank et al. (2013) conducted a study to assess the feasibility and effectiveness of MBSR in combating teacher stress and the influence on overall well-being. The sample size for this study included 36 suburban high school teachers. With the assumption that teachers would experience significant improvements in reported self-efficacy and physical and emotional well-being, teachers were asked to participate in an 8-week MBSR program. Pre and posts analyses were done to assess factors such as mindfulness, self-efficacy, and burnout. From an assessment of the results, Frank et al. proposed that teachers who participated in MBSR or related stress reduction techniques experienced higher levels of self-efficacy and better management over the classroom environment. Frank et al. further argued that more research would be necessary to better determine the long-term effects of related programs on the classroom environment.

From these studies, researchers found that mindfulness-related interventions showed a significant impact in the classroom setting. Specifically relating to teachers, mindfulness was found to be beneficial within their personal and professional realms. These studies (Franco et al., 2010; Frank et al., 2013; Flook et al., 2013; Roeser et al., 2013) and others (Gold et al., 2010; Singh et al., 2013) helped to establish a definite trend of mindfulness-related techniques being juxtaposed with professional development opportunities; however, a noticeable pattern within these studies is the limited post-intervention and observation periods after the teachers reacclimated into the classroom studies as well as the limited perspective on the impact of teacher participation on

students. Currently, data are unclear as to what the long-term implications are for these types of programs for educators and those they encounter.

This study was a nonrandomized control group pretest-posttest design, conducted to analyze historical data and participant responses on student disciplinary behavior, student academic progress, and teacher absenteeism before and after teacher participation in MBSR. In the past, researchers found and assessed the short-term progress of MBSR for both teachers and students (Flook et al., 2013; Gold et al., 2010; Kabat-Zinn, 2003; Meiklejohn et al., 2012; Roeser et al., 2012). The findings supported the implementation of mindfulness-practices for educators across the K-12 spectrum. The purpose of this study design was to understand how well these strategies and techniques can assist in maintaining a positive and productive educational environment over a more extended observation period, precisely 2 years. Providing a quantitative foundation allowed the me the opportunity to assign a measurable value to the role of MBSR as a response to classroom management and teacher stress outcomes with early education professionals. The independent variable in this study was MBSR, including two levels of participation and non-participation (control group). The dependent variables are teacher attendance (measured as tardiness and absenteeism), classroom disciplinary actions (recorded frequency of referrals, suspensions, and expulsions), and student academic test scores (under the subjects math and English, as documented by the district reports based on grade levels).

Problem Statement

Education has long been described as a high-stress industry, detailing conflicting job demands as well as the level of emotional labor needed to perform adequately (Clausen & Petruka, 2009). Certain aspects of research identified teacher efficacy as an area that is significantly impacted from growing levels of stress, with specific studies emphasizing factors such as attention and empathy being influenced with direct correlation to the student-teacher relationship (Meiklejohn et al., 2012). To counteract these occurrences, administrators looked to implement stress management interventions and techniques that provide teaching professionals with the necessary tools to cope with the pressure of the teaching environment such as creative relaxation and MBSR (Flook et al., 2013; Froeschle & Crews, 2010; Roeser et al., 2012). Studies show that with a more apparent presence of mindfulness, occupational outlook, and self-compassion, increased levels of active teaching behavior and reduced burnout over a 6-month period also occur; however, there is limited research to support an understanding of the long-term effects of these methods on teaching practices, the classroom environment, and student progress beyond that time frame (Flook et al., 2013; Gouda et al., 2016; Roeser et al., 2013; Zenner et al., 2014).

Several studies (e.g., Franco et al., 2010; Gold et al., 2010; Gouda et al., 2016; Roeser et al., 2013) reviewed the role of MBSR specifically focused for teachers. These studies concluded that there was a significant difference between teachers who experienced less psychological stress when exposed to mindfulness training versus teachers who did not. These results also highlighted higher levels of focused attention and

self-assessments of compassion (Roeser et al., 2013). Based on observations of teacher participation in MBSR or related training, researchers found significant increases in teacher-reported self-efficacy (Gouda et al., 2016), stronger foundational support in the student/teacher relationship (Meiklejohn et al., 2012), increased effectiveness in teacher classroom behavior (Flook et al., 2013), and the reduction of emotional strain and burnout (Flook et al., 2013). Although these studies observed the impacts of mindfulness on the educational environment after teacher participation, there a gap in research in reporting the effects of MBSR and related techniques over a substantial period. Current studies also lack an analysis of the relationship between teacher participation and student progress based on before and after periods of implementation.

Purpose

The purpose of this quantitative study was to understand the effect of teacher participation in mindfulness training techniques on teacher absenteeism, classroom climate, and student success within an urban education setting after a 2-year period. Target areas for understanding results included a data collection and analysis of disciplinary referrals, suspensions and expulsions, and grade-based math and English test scores as reported by the state and teacher absences in the specific months before, during, and after participation in mindfulness training as collected by the administration. The goal of this quantitative analysis was to identify whether teacher participation in MBSR initiated a shift in the defined areas of the classroom and associated behaviors over 2 years. From an assessment of the findings, the hypotheses were presented to measure the effectiveness of learned stress reduction strategies after an extended period of

implementation using a two-way ANOVA to understand any changes in student disciplinary infractions, student academic progress, and teacher absenteeism. From the testing of hypotheses, potential applications were recommended for professional development opportunities that extend all the resources needed to improve the teaching and classroom environment, further emphasizing stress management techniques as an efficient solution to reducing teacher burnout and job strain.

Research Questions and Hypotheses

RQ: What is the long-term effect of teacher participation in MBSR on the frequency of student discipline referrals, suspensions, and expulsions in the sixth to eighth grade classroom setting?

$H_0$1: There will be no decrease in student discipline referrals as a result of teacher participation in MBSR.

$H_1$1: There will be a decrease in student discipline referrals as a result of teacher participation in MBSR.

$H_0$2: There will be no decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

$H_1$2: There will be a decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

$H_0$3: There will be no decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

$H_1$3: There will be a decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

RQ: What is the long-term effect of teacher participation in MBSR on sixth to eighth grade math and English academic progress?

$H_0$1: Sixth to eighth grade students will demonstrate no increase in math academic progress as a result of teacher participation in MBSR.

$H_1$1: Sixth to eighth grade students will demonstrate an increase in math academic progress as a result of teacher participation in MBSR.

$H_0$2: Sixth to eighth grade students will demonstrate no increase in English academic progress as a result of teacher participation in MBSR.

$H_1$2: Sixth to eighth grade students will demonstrate an increase in English academic progress as a result of teacher participation in MBSR.

RQ: What is the long-term effect of teacher participation in MBSR on voluntary teacher tardiness and voluntary absenteeism?

$H_0$1: Sixth to eighth grade teachers will demonstrate no decrease in voluntary tardiness as a result of participation in MBSR.

$H_1$1: Sixth to eighth grade teachers will demonstrate a decrease in voluntary tardiness as a result of participating in MBSR.

$H_0$2: Sixth to eighth grade teachers will demonstrate a decrease in voluntary absenteeism as a result of participating in MBSR.

$H_1$2: Sixth to eighth grade teachers will demonstrate no decrease in voluntary absenteeism as a result of participating in MBSR.

Definition of Theoretical Constructs

Langer (1992) defined mindfulness as a state of consciousness in which an individual can actively choose a response that is both proper in context and perspective. As a stress management technique, mindfulness has been found to be successful in the education setting; however, research is limited to suggest whether these techniques still hold value after an extended observation period (Flook et al., 2013; Gold et al., 2010; Roeser et al., 2013; Roeser et al., 2012).

Pro-Social Classroom Model

The theoretical foundation for this study was the pro-social classroom model by Jennings and Greenberg (2009). Jennings and Greenberg proposed that teachers who are found to be socially and emotionally competent are more likely to establish and foster a favorable classroom climate and tend to experience desired student outcomes. Within this climate, teachers who possess and engage in behaviors that are more socially and emotionally aware develop stronger relationships with their students, reduce disruptive behavior, and create a long-term positive learning environment that encourages strong educational interests and better focus strategies. When teachers lack the appropriate resources to balance disruptions that may affect their social and emotional competence within the classroom, the academic and behavioral responsiveness of students may be affected. Over an extended period, teachers who continuously behave reactively are more prone to experience emotional exhaustion, burnout, and eventually participate in the turnover cycle (Jennings & Greenberg, 2009).

The Theory of Mindfulness

Langer (2000) and associated researchers supported the understanding that mindfulness is a state in which a person is actively engaged with the opposite being a state of mindlessness. Mindlessness creates the behavior that replicates a unique perspective in addressing a problem, with the solution being more reactive than proactive (Langer, 2000). Over the last 10 years, a growing presence of mindfulness and related stress reduction techniques within the education environment is evident (Zenner et al., 2014). Teaching is known as a profession that carries significant levels of emotional labor and uncertainty (Collie et al., 2012). Specific classroom dynamics often require frequent shifts of attention and alertness, and teachers are often expected to address high-stress situations such as disruptive student behavior (Roeser et al., 2012). Traditional professional development methods often work to reactively prepare teachers to perform effectively regarding what to teach, how to explain it, and behavior adaptability based on age group, but awareness has become increasingly relevant regarding the lack of emotional labor/strain preparation that prevents teachers from adequately performing their roles (Roeser et al., 2012). The practice of mindfulness has been identified as a cost-effective, relevant solution to address this problem and related consequences such as burnout.

Mindfulness is perceived as the act or state of being focused intentionally and exercising clear and concise decision-making skills (Roeser et al., 2012). Concerning stress reduction, mindfulness techniques can be solutions to address educational concerns as well as physical well-being (Gouda et al., 2016). Several studies (Gouda et al., 2016;

Roeser et al., 2012; Roeser et al., 2013) identified contributing job-related stressors such as workload, emotional exhaustion, and depersonalization, and suggest mindfulness and related techniques as crucial components to professional development. Many researchers have come to a consensus that teaching is a stressful occupation, citing job responsibilities and fluctuation of interpersonal interactions and consistency of emotional labor as significant contributing factors. From a summary of the available research, teachers often find themselves taking on additional roles inside and outside of the classroom, without considering their emotional well-being at the forefront of performing their tasks adequately.

Teacher Work Stress and Burnout

Another common thread in related research is that school and classroom size, duration of the interventions, and feasibility of the practice are influential in affecting teacher participation in interventions. There can be a lack of interest or desire to implement interventions that address ways of reaching the mindfulness state due to the outside factors stated above. When discussing the specific occurrence of teacher burnout, teachers are often well equipped academically to engage in classroom dynamics but employ coping strategies such as avoidance or distancing when faced when the emotional stressors and demands of their work (Franco et al., 2010). Prolonged engagement in these harmful coping mechanisms leads to long-term consequences such as anxiety, depression, worry, and insecurity (Franco et al., 2010). Teacher work stress has many layers; however, negative student behavior and workload are found to consistently contribute to the occurrence of work stress and burnout (Collie et al., 2012).

Nature of the Study

The purpose of this quantitative study was to analyze the long-term effect of teacher participation in MBSR on student academic progress, student disciplinary behavior, and teacher absenteeism. The independent variable was teacher participation in MBSR presented within the school environment, and the dependent variables were student academic progress, student disciplinary behavior, and teacher absenteeism. This study was a quasi-experimental design, due to the nature of random sampling being challenging to achieve for the study topic and population focus. The pre-test/posttest design used historical data available regarding behavior before the independent variable and the effect of the independent variable on the dependent variables following an extended period after implementation. This research design allowed the opportunity to observe how participation in MBSR has affected the classroom environment, mainly focusing on student and teacher behavior.

This study was designed as a quantitative analysis to remain consistent with previous research studies in providing an accurate summary of the impact of MBSR. During data collection, teacher responses, relevant school data regarding student disciplinary frequency, trends in teacher absenteeism, and student academic progress were analyzed based on historical data collected by the California Department of Education and the national Department of Education.

Definition of Terms

Mindfulness: Mindfulness is the state of being in which a person experiences heightened involvement and alertness, also described as actively being in the present (Langer & Moldoveanu, 2000).

Mindfulness-based stress reduction: MBSR refers to a specific style of training methods designed to address stress, depression, and anxiety (Flook et al., 2013).

Student discipline referrals: Student discipline referrals are documentation to support disciplinary action regarding student behavior (Meader, 2018).

Student expulsion: School expulsion is the disciplinary procedure of long-term school removal, typically for the remainder of the school year (Petras et al., 2011).

Student suspension: Student suspension refers to the disciplinary procedure of school removal for a designated length of time. It can be identified as short-term, meaning 10 consecutive days or less, or long-term, meaning more than 10 days but less than the remainder of the school year (Petras et al., 2011). Some US schools practice ISS, or in school suspension, that dictates that a student can remain on school premises but must not be present in the environment where an incident occurred for an extended period.

Teacher absenteeism: Voluntary teacher absences are high frequency, planned, and short-term, whereas involuntary teacher absences are caused by unexpected events that prohibit the employee from attending work and are outside of their scope of control (Gaziel, 2004).

Teacher burnout: Teacher burnout is a psychological condition that can manifest through exhaustion, depersonalization, and low efficacy (Bousquet, 2012).

Teacher work stress: Teacher work stress is caused by factors such as overload of emotional labor, attention-intensive demand, high the degree of workload, lack of support from administrators, difficult classroom behavior, and additional occurrences based on job need (Roeser et al., 2013).

Assumptions

Two assumptions guided the direction of this study. First, I assumed that teacher behavior has a significant impact on student behavior in the classroom environment. Second, I assumed that by providing confidentiality and anonymity, participants would answer truthfully about their perception of the impact of their participation in the intervention on student behavior.

Scope and Delimitations

This study topic was chosen because of the impact of teacher stress on the classroom and the currently limited options available for teachers to actively engage in stress management and classroom management. This study focused on primary school teachers within urban school districts and metropolitan cities that report a significant number of students enrolled versus surrounding areas because primary school teachers are often thought of as fundamental in shaping students' behavior and perception of the world. For data collection, Likert-style survey tools were included to cut down on respondent biases towards secondary subjects (students). This level of data, in

combination with researcher analysis, worked together to provide a comprehensive response to the research questions.

Limitations

Recognizing limitations is a critical component of conducting research. Limitations with potential impact to this study included the influence of the progression of time, teacher attrition, lack of data access, maturation, teacher turnover, and student enrollment. A significant amount of data for this study came from urban-identified school areas, which can limit the relation to teachers who do not experience the same conditions in rural settings. Based on the geographical location of this study, there is location bias regarding the potential participant pool. This study provided an observational analysis for urban districts response to MBSR but can give insight to larger implementations in other geographic regions with similar conditions.

Significance

Mindfulness training can assist teachers with classroom focus, problem-solving, and decision making; however, there is limited research that points to the long-term effects of these techniques and their importance to the overall educational environment (Young, 2016). From Jacob's (2007) perspective, teachers in urban school districts face more strenuous pressures than those in suburban areas, and these additional triggers can significantly decrease the level of performance and productivity within the classroom. Jacob's examination focused on the importance of attracting and retaining high-quality teachers. When encountering varied levels of emotional labor, in conjunction with the physical and mental demands of their occupation, teachers often experience stress and

burnout that contributes to lower performance and high turnover. Mindfulness training in education as a low/no cost solution can decrease emotional distress in teachers and increase school-related self-efficacy in students. Understanding the impact of these interventions after extended observation can add value to conversations regarding potential larger educational implementations (Franco et al., 2010; Gold et al., 2010; Gouda et al., 2016). For example, in November 2016, Flint, Michigan public schools, along with the Crimm Foundation, worked with students and teachers to implement mindfulness techniques, with an emphasis on problem-solving, behavioral control, and mental concentration (Young, 2016). Analyzing teachers who participated in MBSR within at least a 2-year period helped determine if successful results were still present and could assist in the development of programs for similar school environments that address the same stressors. As a foundation, studies that focused on short-term success found that incorporating mindfulness strategies led to a reduction in the occurrence of burnout and promoted a sense of stronger well-being and productivity (Flook et al., 2013).

Summary

When considering solutions to combating teacher work stress and other factors contributing negatively to the classroom environment, observing the long-term impact of MBSR on teachers and the classroom environment can provide useful insight on non-traditional professional development. In urban school environments, districts struggle with factors that affect both recruitment and retention of quality teaching professionals, citing stress and burnout as critical factors that interfere with teacher efficacy

(Meiklejohn et al., 2012). Results from this study provided further insight into the role of MBSR and how it could be on a long-term basis.

Chapter 2 discusses the literature review foundation of this study based on the relevance of mindfulness in education, teacher work stress, and adverse outcomes such as burnout and absenteeism.

Chapter 2: Literature Review

Introduction

The purpose of this study was to identify the long-term impact of teacher participation in MBSR on teacher absenteeism, student disciplinary trends, and student academic progress. Over the past decade, a trend in mindfulness training as an application toward student success and teacher development has grown. As discussed in Chapter 1, mindfulness-based training regarding educational implementation has multiple cited benefits (Flook et al., 2013; Gold et al., 2010; Kabat-Zinn, 2003; Meiklejohn et al., 2012; Roeser et al., 2012); however, these interventions are not without criticism in terms of practical application and longevity. Why should a stress reduction practice predominantly found in corporate settings be implemented in the educational atmosphere when several different factors affect participant behaviors?

Additionally, due to the implications of large-scale implantation, budget restrictions, and inflexible schedules, educational administrators often struggle with identifying plausible solutions that can effectively combat teacher stress and burnout, and mindfulness as an intervention concept is still in the early stages of educational implementation. Introducing an experimental design can be interpreted as a risky endeavor for administrators, which could explain the hesitancy in the application of mindfulness-based training for teachers. Still, with the growing body of research supporting the benefits of mindfulness-based training and related literature, the potential impact has become hard to ignore in light of educator workforce challenges. Since Langer (1989) and Kabat-Zinn's (1979) contribution to the understanding of mindfulness,

several researchers emerged offering additional insight and practice application of mindfulness in the workplace, specifically in the educational setting.

Researchers have long cited education as a critical component in the foundation and development of society, specifically with teachers as the first point of contact in developing social interactions and perceptions (Jacob, 2007; Vesely et al., 2013). Teacher stress, time pressures, class size, and increasing workloads were among the factors that teachers cited as workplace concerns (Pickering, 2008). Additionally, with the rapid change of learning styles and abilities, educators are faced with conflicting work demands in their everyday interactions, which can prohibit effective teaching practices. Leaders within the educational field are working to identify solutions that properly equip educators with the tools and resources to adequately deal with stressful triggers. Several researchers found that when these resources are lacking, teachers often become more stressed and frustrated, with researchers citing low performance, dissatisfaction, and other negative factors as consequences (Kokkinos, 2007; Roeser et al., 2013).

As a theoretical concept, achieving a state of mindfulness means that individuals built their emotional decision-making processes to a point in which they can actively engage in problem-solving while encountering the least amount of stress (Langer, 1989). MBSR-related interventions and practices can be a useful option to enhance emotional intelligence while building upon the practical skills that teachers possess. While there is current research on the presence of mindfulness in education, this area is continually growing with interest and findings that could potentially put forth additional applications in classroom settings. Significant sections of this chapter included a discussion on MBSR

as an intervention method, its presence in the educational setting, factors that impact teacher stress and burnout, and the implications of these occurrences on teacher absenteeism and student outcome.

Search Strategies

Multiple databases were used to identify relevant journal articles for this topic including PsycINFO, PsycARTICLES, Google, Google Scholar, and the Education Resources Information Center. Related search applications also included two websites: Mindful.org, which is run by the Mindful non-profit organization, and Mindfulness in Schools.

For the literature review, I sought theoretical research published between 1989 and the present, while research specifically related to the application of MBSR in education was limited to 2012 to the present. Additional research included in this study focused on teacher stress and burnout, teacher absenteeism, student behavior, and classroom climate and was published between 1991 and the present.

Keywords

The keywords used for this study were *mindfulness, mindlessness, primary education teacher stress, teacher efficacy, school/teacher effectiveness, teacher absenteeism, teacher burnout, mindfulness and primary education, stress reduction, mindful teacher, meditation, teacher support, professional development, classroom management, teacher motivation,* and *teacher retention*.

Theoretical Framework

According to Jennings and Greenberg (2009), socially and emotionally competent teachers encourage student success academically and behaviorally. To be successful, teachers must exhibit a high level of proactive functionality in "self-awareness, self-management, social awareness, relationship skills, and responsible decision-making" (pp. 374, Jennings et al., 2013). Teachers who display this positive type of behavior exhibit effective coaching and conflict resolution skills, as displayed in effective communication techniques with their students. Jennings and Greenberg argued that after engaging in productive social and emotional learning methods, socially and emotionally competent teachers are more likely to experience higher quality student-teacher relationships, positive student outcomes, and healthier classroom climates. The relationship between teachers and young students is a critical one as it facilitates social, emotional, and academic growth (Rodriguez et al., 2020). However, researchers argued that when teachers exhibit signs of emotional exhaustion, their behaviors can negatively impact the behaviors they are trying to demonstrate for students (Rodriguez et al., 2020). When included in the Five Awarenesses of Teaching framework (Rodriguez et al., 2020), the pro-social classroom model enables teachers to be fully socially and emotionally competent. Other studies (Abenavoli et al., 2014), using the prosocial classroom model as a framework, found that teachers who exhibit more mindfulness tend to experience more effective classroom interactions and experience burnout less.

Based on their assumption and research of the classroom atmosphere, Jennings and Greenberg (2009) proposed several hypotheses related to the pro-social classroom

model, particularly the social and emotional competency level of teachers. First, teachers who possess these positive behaviors were more likely to individualize and recognize a student's emotions and how this correlates with this student's behavioral responses and then respond to the student's individual needs. Second, teachers who were socially and emotionally competent display stronger classroom management skills and are more effective in guiding and managing student behavioral responses. Next, teachers who met these standards were more likely to implement a curriculum that is reflective of process-based behavior and promotes mirror social and emotional competence from their students. This transactional interaction contributed to a healthy classroom environment. Finally, Jennings and Greenberg hypothesized that other factors outside of the classroom could influence a teacher's social and emotional competence. Specifically, factors such as educational policies and demands, administrative support, peer relationships, and life stress could potentially hinder teacher efficacy and their ability to engage in socially and emotionally competent behavior in the classroom.

In support of the pro-social classroom model (Jennings & Greenberg, 2009), researchers implemented different social and emotional learning interventions in differing classroom environments to observe the effects and outcomes. Jennings et al. (2013) analyzed teacher participation in the CARE program. CARE was designed to improve educator social-emotional competence and well-being as it relates to the classroom setting. Jennings et al. hypothesized that by exposing participants to methods of mindfulness, care, compassion, and emotional skills instruction, participants would in turn experience positive outcomes in teacher and classroom improvement.

Similarly, Frank et al. (2013) examined the effectiveness of a modified version of MBSR on educator stress and overall well-being. Under the generalized assumption that adults outside of the education field responded favorably, Frank et al., argued that adult educators would react in the same or similar fashion. Throughout 8 weeks, participants engaged in mindful-related techniques such as breath-awareness and skill-building activities. These sessions were designed to enhance interpersonal communication skills and heighten the ability to consciously respond to situations such as negative student behavior in a proactive manner. Participants were also encouraged to incorporate mindfulness activities into the classroom.

The current study's goal was to observe the long-term effects of teacher participation in implemented MBSR and related interventions. The pro-social classroom model (Jennings & Greenberg, 2009) dictated that once teachers are established as socially and emotionally competent, they could expect to experience better personal and student outcomes. The research questions for this study addressed the potential results to be affected by teacher participation in these professional development initiatives. While MBSR has made its way into education over the past decade, it is essential to assess the implications of these techniques after substantial time has passed and to see if these results are reliable and replicable in other settings.

Mindfulness-Based Stress Reduction

Although there are varying degrees of the understanding of mindfulness, when it comes to cultivating healthy individuals and reducing stress, depression, and anxiety, researchers agreed that MBSR interventions hold value (Khoury et al., 2015). At its core,

MBSR works to enhance an individual's emotional behavior and change how they react towards stressor from reactive to proactive. Healthcare organizations and colleges campuses began teaching MBSR to combat stress, and even with the differences in understanding, its practices help participants increase mindful behavior and compassion (Khoury et al., 2015). Using mindfulness in the classroom setting could help teachers understand their emotions better, communicate more effectively, and create a more positive learning environment.

To better understand MBSR, there first must be a general understanding of mindfulness. As stated in Chapter 1, mindfulness is a cognitive creative process that involves the development of new behaviors that allow an individual to respond to a scenario in the present (Langer & Moldoveanu, 2000). From this research, MBSR is the learning and practice of cognitive abilities that allow an individual to focus on the present moment without judgment. Langer's (1989) research centers on the practice of mindfulness as a cognitive process that involves exercising a greater sense of consciousness and mental awareness. The practice of MBSR takes an individual through practices and exercises that increase their capability to process a broader sense of possibilities within the decision-making process.

Several studies (Frank et al., 2013; Flook et al., 2013; Jennings et al., 2013; Meikeljohn et al., 2012; Roeser et al., 2012; Roeser et al., 2013) focused on the direct impact of MBSR or related interventions and different components within the classroom environment. All these studies pointed out that the role of teachers and the student-teacher relationship is hugely significant when considering adolescent development.

Additionally, these studies also highlight the notion that human service occupations, explicitly teaching, are considered highly stressful. With the introduction of MBSR into education, not only are educational leaders looking for a solution to address teacher stress and burnout, but there is also the expectation of enhanced student behavior and progress. While still a relatively new intervention method, MBSR carries significant predictions of its success and growth.

Studies surrounding mindfulness-based interventions in the education setting focused on implementing techniques and measures around the same core foundation of mindfulness. The typical approach to change behavioral response from teachers in these studies reflected in structured programs that teach forms of meditation, self-awareness, and positive behavioral response tactics. Most of these studies addressed teacher self-efficacy and well-being; however, some researchers reported additional outcomes included enhanced student-teacher relationships, positive shifts in student outcomes, and positive impacts on teacher burnout and turnover (Flook et al., 2013; Jennings et al., 2013). These studies stand out in mindfulness education research because they take a critical look at the impact and behavior of teachers who participated in the intervention programs. These studies used multiple analysis avenues to collect data and accurately report on their findings and predictions.

Within the scope of research available, there is a definite push to begin incorporating mindfulness-based practices in educator professional development. Each introduction establishes teaching as a highly stressful occupation within the human service field. These studies highlighted factors that can contribute to teacher stress and

how these factors can ultimately lead to unfortunate consequences for the educational system. Mindfulness-based interventions can be beneficial to the educational community; however, these studies often indicated that their results reflect the immediate pre- and post-intervention periods (Frank et al., 2013; Flook et al., 2013; Jennings et al., 2013; Meikeljohn et al., 2012; Roeser et al., 2012; Roeser et al., 2013). Additionally, specific studies go into further detail of the need for an observation on these intervention methods over a more extended period to assess the longer-term impact of training and the level sustainability over time (Flook et al., 2013).

In the initial studies assessing the impact of MBSR on teachers, the main variables under observation were teacher classroom management and behavior, personal well-being, teacher efficacy, and occasional student outcomes. These variables are valuable in determining trends in the work environment and the potential occurrence of teacher stress and burnout. For the current study, teacher absenteeism, student classroom, and student behavior were relevant variables due to the potential impact of long-term exposure to teaching methods enhanced with MBSR techniques. Adversely, these variables were also chosen to determine whether MBSR bares no long-term effect and is not beneficial to the educational system.

Mindfulness in Education

It is not uncommon to find MBSR in customer service or healthcare settings; however, noticeable spikes occurred over the past decade about MBSR's application in the education setting. Each of the MBSR-related studies discussed in this literature review highlight that teachers are one of the first non-parental adults that young children

encounter that help shape their development and perception of the world. Researchers involved in this body of work argued that the student-teacher relationship must be kept balanced and nurturing to ensure that students are getting the information that they need, and teachers are not experiencing elevated levels of stress and burnout. In recent educational critiques, more emphasis is on the importance of test scores as a measure of students' abilities. This pressure, among other factors, has increased the stress of work demands and teachers are facing increased levels of accountability regarding these scores, in addition to the other mounting pressures of maintaining a productive classroom environment (Flook et al., 2013). When analyzing the phenomenon of teacher stress, several internal factors such as time, classroom size and lack of administrative support consistently came up (Pickering, 2008), as well as external factors such as personal life scenarios. One element identified as a contributing factor is student disciplinary behavior (Brouwers & Tomic, 2000; Pickering, 2008), often being placed as one of the highest triggers when identifying the cause of teacher stress (Frank et al., 2013). This stressor and other work environment factors prompted education professionals and investigators to better understand MBSR and its practical implications for teachers in the classroom.

Although the perspective of mindfulness methods in the education setting has seen a growth in interest, many analyses were limited to the experience of students. Currently, a smaller research pool focuses on the impact of MBSR on teachers, both before and after their engagement. The understanding and use of relaxation techniques may not be new, but many teachers faced with the overwhelming weight of job stressors cannot properly engage in the appropriate methods to maintain control. Roeser (et al.,

2012) argued that although human service professions are resistant to significant changes, such as mindfulness interventions, providing teachers with these resources can be beneficial to staff retention. Teachers often enter the workforce with considerable subject-matter or content knowledge but are unprepared for the uncertainty and emotional strain that can occur from the nature of teaching. Researchers argues that MBSR is providing potential opportunities for teaching staff to engage in long-term uncertainty reduction practices, enhancement of attentional focus and cognitive flexibility, and emotional regulation, among other benefits (Roeser et al). In working with children, some scholars argue that the presence of mindfulness in education can increase the range of flexibility when dealing with different cultural backgrounds, life experiences, and learning styles (Davis, 2012).

Within education, scholars assert that MBSR allows its participants the opportunity to improve on teacher behavior, including the relationships with fellow teachers, students, and parent/guardians. With that understanding, my goal for this study was to observe that assumption from a more extended point of observation that current research studies and determine its accuracy and potential for growth. Overall, MBSR significantly contributed to the decrease in negative mood states and served as an effective treatment for psychological stress and emotional strain (Young & Baime, 2010). When it comes to education, the classroom environment can be home to many different distractions throughout the day. Not only must teachers focus on the exchange of information, but there can also be unplanned interruptions, classroom behavioral issues

and other challenges that can disrupt one's focus and ultimately shift the balance of the teacher-student dynamic.

Focused on the implementation of MBSR with teachers (Flook et al., 2013; Franco et al., 2010), specific studies found MBSR has a positive impact on overall teacher mindfulness, self-compassion and self-reported teaching behavior, a decrease in attentional biases and the levels of psychological distress experienced by teachers and enhancement in the realm of student-teacher engagement. With growth on research studies based on MBSR in education, these studies lacked the long-term observations on the impact of the interventions. Additionally, there are limited perspectives on the effects of MBSR regarding teacher behavior, such as absenteeism and turnover. These factors can potentially indicate why many schools, especially in urban areas, struggle with attraction and retention in today's educational environment (Jacob, 2007).

Some research studies centered around the effect of MBSR on teachers rely on self-reported questionnaires to assess psychological distress, emotional strain, motivation and other areas related to overall job satisfaction and efficacy (Franco et al., 2010). Once data collection occurred, teachers from this sample pool are then identified and asked to participate in interactive training centered on the technique of mindfulness, meditation, and stress reduction. These interventions range from six to 10-week programs, with researchers offering a pre and post assessment based on the self-reported data.

Globally, mindfulness has also taken shape in the education setting. Both in the Netherlands and Australia, mindfulness training has been provided to over 1,600 educators and 129,000 students (Albrecht, 2018). With mindfulness growing in

popularity, it's no wonder this ideology and programming has filtered into the U.S. education system to address growing concerns about the impact of teacher stress. Understanding the dynamic between the relationship of teacher stress and outcomes such as teacher burnout, negative student behavior, and lack of engagement is critical in determining what interventions are necessary in reducing these occurrences.

Teacher Stress

Today, stress has grown to be synonymous with adverse effects, including physical manifestation. A significant body of research has focused on the occurrence of occupational stress and the potential outcomes it can predict for an individual. In addition to the health risks, overall productivity, job performance, and retention show a correlation to an individual's stress level (Jepson & Forrest, 2010). Within education, several leading causes to teacher stress, including pressure over inconsistent workloads, relationships with colleagues, and classroom management were uncovered (Pickering, 2008).

Additionally, lack of resources, family implications, increasingly diverse student populations, and a rapidly changing workplace were contributions to the rise of teacher stress (Pickering, 2008). These stressors lead to an impact on teacher quality and turnover (Jepson & Forrest, 2010). These findings increased the understanding of what causes and contributes to teacher stress, and ways to combat these triggers.

While the classification of teaching as a stressful occupation has gained some traction over the last decade, there is still limited research available on how to address stressful triggers within the classroom environment. This small research pool is partially due to the perspective of the limited flexibility of the educational atmosphere, yet,

research is still moving forward with the dissection and understanding of stress in the educational workplace. The general definition of “stress” combines external triggers, an individual's emotional state, and the relationship that the individual has between the two (Boyle et al., 1995). While there are many different perspectives on the dimensions of teacher stress, some scholars (Brenner & Bartell, 1984; Kyriacou & Sutcliffe, 1978; Lazarus & Folkman, 1984) developed conceptual models to identify potential categories within this phenomenon. These models are beneficial in addressing the cause and effect relationship between teacher stress and the work environment; however, criticism has surfaced due to the lack of focus on striking characteristics that lead to teacher stress.

Several different factors identified as contributing to the occurrence of teacher stress include student behaviors and discipline and the weight of the workload (Clausen & Petruka, 2009; Collie et al., 2012; Russell et al., 1987). While many different resources indicated that there are several layers within the occurrence of teacher stress, these two sources are the most consistently reported. These two sources also show a strong significance with low teacher efficacy and high teacher burnout (Collie et al.). With a growing teacher shortage, many teachers are faced with overcrowded classrooms and a lack of resources to effectively teach and maintain control (Roeser et al., 2013). Teachers who reported experiencing a higher level of stress and burnout also struggle with keeping a productive classroom environment and often do not build strong teacher-student relationships (Colie et al.; Roeser et al.). This elevated stress level can affect the students' motivation to learn and contributes to their behavior within the classroom (Roeser et al.). Educational leaders have reported the lack of funding as a consistent barrier to providing

opportunities to combat teacher stress, leaving teachers feeling like they have no control and with no or low sense of job satisfaction (Collie et al.; Russell et al., 1987).

With the growing understanding of teacher stress, the new challenge is finding adequate ways to address this issue while adding value for the participants and the classroom environment. For researchers who have actively studied the effect of mindfulness training on schoolteachers, their consensus is that mindfulness training is a useful tool in reducing stress and improving classroom interactions (Flook, 2013).

Teacher Burnout

As described by Schwarzer and Hallum (2008), burnout is the state of exhaustion an individual may experience after repeated encounters with or in stressful situations. Burnout can also be described as a component of depersonalization and reduced personal accomplishment (Skaalvik & Skaalvik, 2010). Burnout is also known as the feeling of reduced personal accomplishment and emotional exhaustion (Skaalvik & Skaalvik). In Greece, researchers found that teachers who experience intense occupational stress are more prone to experiencing burnout (Antoniou et al., 2013; Skaalvik & Skaalvik). As with teacher stress, there are many layers when dissecting the occurrence of teacher burnout such as gender, age, associated grade level, and experience. Specific to the work environment, factors such as workload, discipline problems in the classroom and lack of resources are known to contribute to the presence of burnout (Kokkinos, 2007; Roeser et al., 2013; Russell et al., 1987). Ending the components that could lead to burnout are crucial for education professionals in keeping their staff motivated and satisfied.

Burnout can be exhibited in physical or emotional behaviors and can lead to lower job satisfaction absenteeism and eventually turnover (Clausen et al., 2009). With research on teacher burnout significantly growing, there is still limited knowledge on the role of an individual in the manifestation of exhaustion. One point is the role of personalities in cases of teacher burnout. While some researchers argued that there is a moderate effect of teacher burnout on teacher efficacy (Chang, 2009), others concluded that there is not enough concrete evidence to suggest a significant correlation. Some research indicated that there is an active link with teachers who exhibit high levels of neuroticism, introversion, and psychoticism with the actions that may occur when an individual is experiencing and high level of stress and exhaustion (Kokkinos, 2007). Kokkinos further argued that teachers who identified as optimistic and energetic felt that they were more likely to engage in positive coping mechanisms to overcome stressful conditions.

The body of research regarding teaching as a highly stressful occupation has helped to build a better understanding that teachers experienced several factors that contribute to stress and burnout; however, these arguments are generalizations on the phenomenon of teacher stress. More recently, researchers began to dig deeper to understand what teacher stress and burnout exactly entail and how it can vary based on different environments such as urban versus rural, and grade/age level. Chang (2009) argued that emotional exhaustion, depersonalization, and a feeling of inefficacy all contribute to the occurrence and frequency of teacher burnout. Chang's analysis proposed that the presence of these factors can add to a constant feeling of exhaustion and if teachers do not have access to revitalization opportunities within professional

development, this cycle will continue and eventually lead to turnover. Researchers such as Brouwers and Tomic (2000) argued that teachers who feel less confident in their classroom management abilities but have a high awareness of the expectation of their classroom management ability are more likely to suffer stress and exhaustion, which is expected to affect the classroom environment even more.

A significant limitation of the study of burnout shows that these analyses only provide a "one-time" observation. In other words, researchers are unable to gauge whether reported experiences of burnout are the result of significant stress over time or if these experiences are the result of pressure within the period of observation. Despite the growing body of research on the subject matter, teacher stress is still a random variable in establishing a benchmark for highly effective educators. Although there are strides towards providing teachers with resources to minimize the impact of work-related stressors, gaps in identifying plausible solutions are still present.

Teacher Absenteeism

Considering that the student-teacher relationship has high significance on many different outcomes in the classroom (Mojavezi and Tamiz, 2012), it is understandable that research is beginning to observe this interaction more closely to determine what factors contribute to positive interactions versus negative ones. When considering the average workplace, absenteeism can be broken down into two types, culpable and non-culpable absenteeism (Obeng-Denteh et al., 2011), with either leading to a decrease in productivity, organizational financial costs, and administrative costs. When looking at a school environment, these costs can manifest in substitutes, overtime, and sick leave pay.

As mentioned throughout this study, one of the leading causes of teacher stress and burnout is student disciplinary behavior. When addressing negative student behavior, teachers were found to exhibit high conflict reactors and low warmth (Yoon, 2002), which can, in turn, intensify a student's response to perpetuate defiant behavior. When teachers have warmer, nurturing interactions with students, students tend to respond less negatively, promoting a more positive classroom environment.

While participating in MBSR can have positive benefits on teachers' perception of stress and burnout, the implications for student behavior and academic progress must also be considered vital to the intervention's success. Although researchers have yet to come to a consensus on the relationship between teacher absenteeism and student progress, there is some agreement on the impact of teacher stress and student achievement. Described as socially and emotionally competent by Jennings (et al., 2009), successful teachers often have supportive and encouraging relationships with their students that influence student disruptive behavior and student progress. Adversely, teacher negligence can manifest in student behavior and engagement without the proper emotional and social tools given to support their students adequately (Jennings et al., 2009; Mojavezi & Tamiz, 2012).

Although teacher absenteeism is known to be an issue, the larger challenge is finding adequate measures to address the root cause. Many districts lack the resources to appropriately report teacher absences, which can lead to problems in finding the right tools for prevention (Lee et al., 2015). There are also differences in how schools are managed (public versus charter), how the school is governed, how sanctions are enforced,

and community expectations (Lee et al., 2015), as well as working conditions, pay structures, classroom expectations, and other factors. With all this to consider, it can be an issue that is both alarming and overwhelming to address for leaders within the educational system. As a low-cost option, mindfulness training can be an attractive option to provide teachers with the tools and resources to be successful but understanding its short and long-term impact is necessary to ensure all parties involved are successful.

Student Outcomes

Considering that the student-teacher relationship has high significance on many different outcomes in the classroom, it is understandable that research is beginning to observe this interaction more closely to determine what factors contribute to positive interactions versus negative ones. By implementing MBSR, educational administrators can help provide resources that are beneficial in ensuring positive student-teacher interactions that reduce job strain on teaching staff and promote a healthy learning environment.

Jennings (et al., 2009) addressed the use of MBSR as a solution to addressing teacher emotional well-being and stress reduction. Jennings (et al.) also concluded that based on current practices, MBSR could provide teachers with the emotional skills needed to create and maintain positive classroom management. Other research studies proposed that teacher participation in MBSR positively affected student behavior in the classroom and their motivation to learn (Roeser et al., 2013). Roeser (et al.) and Jennings (et al.) placed a considerable significance on the observation of teacher efficacy before and after participation in the intervention. Some studies go even further to analyze the

influence of the school climate and its importance to the success of the educational environment (Collie et al., 2013; Gouda et al., 2016). These studies show that there is a correlation between how teachers respond to certain situations based on the introduction of mindfulness and how students engage based on these responses. From this assessment, additional observation is necessary to understand the long-term implications of teacher participation in MBSR further. While teacher stress has become a significant point in highlighting the benefits of mindfulness training, student outcomes are still at a major forefront. At this time, the consensus is that children who possess positive social and emotional skills are more likely to respond positively to stressful situations and have a higher level of academic success (Schonert-Reichl, et al., 2015). Through the practice of being mindful, people can shift from autopilot responses as a reaction to stressful situations to being more present in the moment. This shift can improve stress regulation and any adverse impacts (Schonert-Reichl et al.). But why does this matter for students? Although a growing body of research supports the role of mindfulness for academic success and emotional awareness, there is still much to be understood about the impact of mindfulness on stress regulation in youth. Still, those in support of mindfulness point to the data currently available that supports mindfulness practices for students and the aftereffects.

One study, "A Systemic Review of Mindfulness-Based School Interventions with Early Adolescents" by McKeering & Hwang (2019), noted that several studies on the impact of MBSR on students showed that while mindfulness interventions did decrease negative mental traits, there was little evidence to support an increase in positive mental

traits. This observation stands in opposite of most analyses of mindfulness interventions with students and provides an interesting critique of the use of mindfulness in schools. Further, McKeering & Hwang (2019) assert that while mindfulness can be beneficial to some students, it may not be suitable for all.

The Current Perspective of Mindfulness in Education

Over the past decade, several research studies emerged with a focus on teacher engagement in MBSR. The studies highlighted within this chapter discuss the impact of teacher participation in MBSR on the overall classroom environment however, there is a limited observation period to indicate if the changes are significant or just a sign of the honeymoon stage. The researchers behind this subject argued the potential usefulness of MBSR for teachers in this changing educational environment, but also proposed that there is limited data available at the time to determine the real value of the implementations.

While practicing mindfulness is beneficial to an individual's general well-being, more research is necessary to determine if these interventions are useful within the education environment for everyone involved, or if education professionals should begin exploring other options to combat teacher stress. Technology is finding its way into the everyday workings of teaching interactions, and a potential question of the relevance of mindfulness implementation when there are other technologically advanced methods could potentially arise. As many of the researchers within the MBSR and educationally related studies might propose, these effects are worth noting for a better understanding of how to effectively engage and propel.

Critiques

With the research field on MBSR in education is growing, it is also essential to consider the potential negative implications surrounding this intervention method. As employers become increasingly aware of the detrimental impact stress has on their employee, and overall bottom line, stress management programs such as MBSR emerged as potential solutions. Though researchers are optimistic on how beneficial these programs can be, there must also be awareness to focus on potential factors outside of the individual that can contribute to workplace stress (National Institute for Occupational Health and Safety, n.d.). In 2002, Scott Bishop argued that MBSR was a cost-efficient and time-efficient approach to effectively teach participants on how to manage their stress and emotional distress however; research was still insufficient to support a consensus on the value of MBSR. Since Bishop's initial assessment, more analysis regarding the overall application of MBSR as well as MBSR in specific work environments, such as education, has surfaced. Still, researchers argue that more must be known about the long-term intervention applications before a real consensus can surface.

Summary and Conclusions

The goal of this study was to provide observation of the effects of MBSR on teachers' long-term behavior and classroom management, as well as the impact of teacher participation on student progress. MBSR has been found to have several benefits to those involved in the school environment, particularly with teachers and students. This section particularly focused on understanding the framework of the pro-social classroom model, the understanding of mindfulness, and the presence of mindfulness in education. Even

further, an examination occurred with the relationship between mindfulness, teacher stress, teacher absenteeism, and teacher burnout, as well as student outcomes when related to teacher participation in mindfulness. Prior researchers have asserted that while there is an indication of improvement and support by those who participate in MBSR, there are limitations based on the observation window. As research moves forward with technological advancements within education, there must also be input on enhancing professional development resources available to teachers to ensure they are receiving the support they need. This analysis focused on the development of the educational environment, how teachers engage in the environment around them, and the relationship between student and teachers. As researchers suggest, teachers play a crucial role in early childhood development, so it is necessary to continue to provide support for these individuals to ensure they perform at their highest capabilities.

Chapter 3: Research Method

Introduction

The purpose of this quasi-experimental quantitative study was to examine whether teacher participation in MBSR had a long-term impact on student disciplinary behavior, student academic progress, and teacher absenteeism. The literature review in Chapter 2 focused on the background and relevance of mindfulness in the educational environment, in addition to an analysis of studies that conducted short-term observation periods regarding teacher behavior in relation to MBSR (Flook et al., 2013; Franco et al., 2010; Gold et al., 2010; Roeser et al., 2013). In Chapter 3, the method of obtaining and analyzing data is detailed, specifically sampling strategies, data collection, and the source of the data. This chapter also discusses the internal and external validity and potential threats, as well as ethical considerations.

Research Design and Rationale

According to Campbell and Riecken (1968), quasi-experimental designs are most useful when observing planned interventions, specifically in social settings. For this study, the nonequivalent quasi-experimental design allowed the opportunity to analyze and review the variables on a control group versus a comparison group using a pre-test and post-test method. Due to the nature of the educational environment already being established, there is no way to assign participants to an observation group randomly. Using a quasi-experimental design allowed a strategic assessment of the independent and dependent variables in their intended environments, potentially observing the intended change and growth of the effect of the independent variable. This type of evaluation

helped to identify strengths and weaknesses in possible implementations in similar urban school environments. Pre-test/post-test comparisons are beneficial in assessing the long-term benefits of interventions but can also present some limitations to researchers when analyzing the available data (Alessandri et al., 2017). Some generally cited concerns of this study design were the potential relocation of participants due to teacher turnover, the heavy reliance on statistical assumptions, and regression to the mean.

This study was designed to analyze participant data that involved teachers who are actively engaging in the learning environment but were also present when the intervention took place. Based on the extended period in which the response has occurred, and the analysis is taking place, maturation of the results was present. This specific research design can give education professionals more insight and potential incentive for implementing MBSR into school environments. If MBSR is determined to be minimally useful over a more extended period, the results of this study can assist education professionals with identifying other plausible solutions that may be more effective in aiding education professionals on classroom management, teacher professional development, and teacher engagement.

Methodology

I used a quasi-experimental non-equivalent design. The use of questionnaires and the analysis of primary data are featured to answer the research questions regarding the long-term effectiveness of teacher participation in MBSR. The method of questionnaires allowed for the collection of data in a low-cost, timely manner, and to collect specific data regarding the relationship between student disciplinary behavior and teacher

engagement in MBSR, a component that has received little focus in current educationally based MBSR studies. Due to the nature of the work environment, questionnaires seem to be the most useful instrument as they cause little to no disruption in the work environment for the study participants, which is also a critical factor in addressing the presence of the observed independent variable.

The analysis of secondary data as a selected methodology provides the data necessary to analyze pre- and post-test conditions. Currently, historical data exist from the California Department of Education on evaluation factors such as classroom management, student discipline, and student achievement. Although this method does not fall under primary research, analyzing this information is a useful practice on gaining the necessary insight to obtain the appropriate answer to the research questions. This method of secondary data analysis also created the opportunity to review a broad scope of data available from a source that traditionally reviews trends and changes over time.

Sampling and Sampling Procedures

The target population for this study was primary school teachers and associated staff in metropolitan areas as well as primary education professionals who played a significant role in the development of the classroom climate and engaged in MBSR in the educational environment. According to the National Center for Education Statistics (n.d.), there are over 100,000 operational public elementary/secondary schools within the United States and about 3.1 million teachers within these schools. This study was conducted using purposive sampling, selecting members of the target population due to their participation in the intervention and limited perspective on the subject. Specific and

open school districts that conducted MBSR within the specified time range are the population pool for this study. After extensive research on the presence of MBSR in schools, the California Department of Education was identified as a school district who has participated widely in MBSR within the study parameters. The next step was to identify specific schools that have implemented MBSR for teachers and gain access to the necessary data to analyze and reject or fail to reject the null hypotheses. The limitation of using purposive sampling includes potential researcher biases and the danger of generalization. To avoid these dangers, I followed the procedures discussed in the section on researcher bias in Chapter 2.

Based on previous research studies observing the effect of MBSR training with control groups, the standard deviation of observed changes in teacher absenteeism over 6 months was 3.03 (Roeser et al., 2013), teacher classroom organization behavior relating to student disciplinary patterns reported at 5.50 after 12 weeks (Flook et al., 2013), and student academic progress and self-efficacy was at 2.86 after 4 months (Gouda et al., 2016). A power analysis, software G*Power (Faul et al., 2007), was used and determined that the sample size needed for this study was 54 participants. This sample size was determined using an effect size of .25 (medium effect size), an $\alpha = .05$, a power level of .80, a 95% Confidence Interval and one numerator degree of freedom. To ensure detection of any effects that exist on the data and to account for the potential of missing data, oversampling occurred to increase the sample size to 75.

Historical and aggregate data from the California Department of Education regarding previous test benchmarks for participants were used to identify pre-test

statistical data, as well as generalized mindfulness-based instruction and participation. To understand the long-term relationship between teacher participation in MBSR and student progress, pre-intervention and 2-year post statistics were collected based on student test scores. I collected data relevant to school count, the number of disciplinary actions per teacher within a school year, and responses to the School Climate Teacher Survey (SCTS)-Revised (Liu et al., 2014) to analyze student disciplinary behavior. The California Department of Education provided access to the necessary data through their public website.

Procedures for Recruitment, Participation and Data Collection

After receiving approval from the Institutional Review Board (IRB) of Walden University, participants were solicited from the Walden Research Pool. Participants were provided with the online survey tool regarding student disciplinary behavior via an online medium to ensure anonymity.

Instrumentation

The Student Behavior Factor section of the SCTS-Revised measure (Liu et al., 2014) was the selected instrument for collecting data regarding student disciplinary outcomes and patterns based on teacher participation in MBSR. The SCTS is an instrument designed to assess teachers' perceptions of the school environment. The student behavior subscale analyzes teachers' perceptions of student behavior towards one another, self-policing, and how students respond to discipline from staff members. This instrument is scored on a Likert-scale from (1) strongly disagree to (5) strongly agree. The SCTS (Liu et al., 2014) and scoring are public domain and are accessible vis the

PsycTests database; however, to properly use this instrument, I sent a request to Dr. Ding via email and was granted permission. The SCTS was validated through an analysis of 380 teachers ranging from 24 elementary schools (Liu et al.) and possessed adequate to good internal reliability for all subscales, with the Cronbach's alpha for the student behavior subscale = .93 (Liu et al., 2014, p. 63).

After Walden IRB approval, The California Department of Education's data set was used as a secondary source, as well as information that collected discipline referral data that have been identified as meeting the sample criterion (e.g. in-school suspension, out-of-school suspension, expulsion). The U.S. Department of Education Office of Civil Rights also provided relevant data regarding teacher absenteeism.

Student achievement outcomes were measured based on state-reported test scores from the California Department of Education. The California Department of Education uses the California Assessment of Student Performance and Progress System is to effectively determine student achievement and success based on grade level (California Department of Education, n.d.).

Operationalization

The SCTS (Liu et al., 2014) was used to analyze student behavior from the perspective of teachers who have participated in MBSR, with ordinal responses of (1) strongly disagree to (5) strongly agree. Secondary data was analyzed regarding MBSR and student disciplinary action collected from the U.S. Department of Education and the California Department of Education. To define the teacher absenteeism variable, there

were two nominal categories: voluntary (high frequency, planned) absences and involuntary absences (Gaziel, 2004).

The California Assessment of Student Progress and Performance assessed sixth through eighth grade students' skills and knowledge for English/language arts as well as how much students improved since the previous school year (California Department of Education, 2018). To define the student academic progress variable for sixth to eighth grade math, there were nominal categories that determine on an annual measure of what students know and can do using Common Core Standards (California Department of Education, 2018).

Data Analysis Plan

To address the research questions, I used a two-way analysis of variance (ANOVA) to determine if there is a statistically significant difference in student academic progress, student behavior, and teacher absenteeism before and after teacher participation in MBSR over a 2-year period. In addition, longevity of teacher participation in MBSR was used as a within-subjects variable for teacher absenteeism. The independent variable in this analysis was teacher participation and grade level. Significance was evaluated at $\alpha = .05$. After the ANOVA was conducted, post-hoc tests were conducted to determine which variable conditions were significantly different.

Data Cleaning

Data available regarding teacher absenteeism, student academic progress, and student behavior for grades six through eight were analyzed for an indication of the long-term impact of MBSR through a two-way ANOVA using SPSS software. Data cleaning

included examining for outliers, missing data relative to the independent and dependent variables, including duplicate responses.

Research Questions and Hypotheses

The research questions and hypotheses were as follows:

RQ: What is the long-term effect of teacher participation in MBSR on the frequency of student discipline referrals, suspensions, and expulsions in the sixth to eighth grade classroom setting?

$H_0$1: There will be no decrease in student discipline referrals as a result of teacher participation in MBSR.

$H_1$1: There will be a decrease in student discipline referrals as a result of teacher participation in MBSR.

$H_0$2: There will be no decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

$H_1$2: There will be a decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

$H_0$3: There will be no decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

$H_1$3: There will be a decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

RQ: What is the long-term effect of teacher participation in MBSR on sixth to eighth grade math and English academic progress?

$H_0$1: Sixth to eighth grade students will demonstrate no increase in math academic progress as a result of teacher participation in MBSR.

$H_1$1: Sixth to eighth grade students will demonstrate an increase in math academic progress as a result of teacher participation in MBSR.

$H_0$2: Sixth to eighth grade students will demonstrate no increase in English academic progress as a result of teacher participation in MBSR.

$H_1$2: Sixth to eighth grade students will demonstrate an increase in English academic progress as a result of teacher participation in MBSR.

RQ: What is the long-term effect of teacher participation in MBSR on voluntary teacher tardiness and voluntary absenteeism?

$H_0$1: Sixth to eighth grade teachers will demonstrate no decrease in voluntary tardiness as a result of participation in MBSR.

$H_1$1: Sixth to eighth grade teachers will demonstrate a decrease in voluntary tardiness as a result of participating in MBSR.

$H_0$2: Sixth to eighth grade teachers will demonstrate a decrease in voluntary absenteeism as a result of participating in MBSR.

$H_1$2: Sixth to eighth grade teachers will demonstrate no decrease in voluntary absenteeism as a result of participating in MBSR.

Threats to Validity

Regarding external validity, the biggest potential threat to this research study was selection bias. Random selections were made to observe the relationship between the independent and dependent variables to minimize selection bias. Although it was evident

this was not be a perfect reflection of the target population, steps were taken to ensure that these results were replicable and generalized to ensure the validity. For construct validity, specific operational definitions of disciplinary actions, student academic progress assessments, and voluntary teacher absenteeism were established as variables to observe.

Other threats to the internal validity of this study included history and participant reactivity. Teacher relocation, memory, and teacher behavior can have a substantial effect on the credibility of this study and influence the results. By bringing attention to these potential threats and adopting measures to address these potential threats, I could establish stronger data to analyze and draw conclusions.

Ethical Procedures

For this research study, I followed policies and procedures put forth by Walden University regarding studies involving human subjects. The purpose was to understand the long-term effect of MBSR on student academic progress, disciplinary behavior, and teacher absenteeism. The California Department of Education, the U.S. Department of Education and the U.S. Office of Civil Rights were all utilized to obtain the appropriate datasets for analysis.

Additionally, using the Walden Participant Pool, those who fit the study parameters were provided with an informed-consent release, and asked to complete the student behavior subscale of the School Climate Teacher Survey-Revised (Liu et al., 2014). For this study, distribution of informed-consent forms occurred electronically to participants who responded to the included survey, and participants will have an ID

number that corresponds to the data from the survey instrument and the data collected. To keep the data sets collected confidential, once collected, data sets were password protected, and once the study waiting period has passed, information no longer needed will be deleted. Permission to conduct this study was also submitted to the Institutional Review Board at Walden University.

If an adverse reaction occurred in one or more subjects, I would have conducted an assessment to determine if the event was unanticipated in nature, severity and frequency, if the event was directly related to participation in research, and if the event puts participants further at risk. If so, the Walden Internal Review Board would the event information.

Summary

Chapter 3 of this study described research methodology including sampling procedures and ethical considerations when analyzing the long-term effect of MBSR participation with urban primary school teachers in the areas of student academic progress, student disciplinary behaviors, and teacher absenteeism. Chapter 4 details data collection and the results of observations on the independent and dependent variables.

Chapter 4: Results

Introduction

The purpose of this quantitative study was to understand the impact of mindfulness training techniques on teacher absenteeism, classroom climate, and student success within an urban education setting after a 2-year implementation period. This chapter includes reviewing the research questions and hypotheses, a description of the data collection process, and results based on the analysis. The data collection section contains information on the study's time frame, demographics of the sample population, and representativeness of the sample to the general population. Results are discussed, including descriptive statistics, statistical assumptions, and statistical analysis findings.

Research Questions and Hypotheses

RQ: What is the long-term effect of teacher participation in MBSR on the frequency of student discipline referrals, suspensions, and expulsions in the sixth to eighth grade classroom setting?

$H_0$1: There will be no decrease in student discipline referrals as a result of teacher participation in MBSR.

$H_1$1: There will be a decrease in student discipline referrals as a result of teacher participation in MBSR.

$H_0$2: There will be no decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

$H_1$2: There will be a decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

$H_0$3: There will be no decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

$H_1$3: There will be a decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

RQ: What is the long-term effect of teacher participation in MBSR on sixth to eighth grade math and English academic progress?

$H_0$1: Sixth to eighth grade students will demonstrate no increase in math academic progress as a result of teacher participation in MBSR.

$H_1$1: Sixth to eighth grade students will demonstrate an increase in math academic progress as a result of teacher participation in MBSR.

$H_0$2: Sixth to eighth grade students will demonstrate no increase in English academic progress as a result of teacher participation in MBSR.

$H_1$2: Sixth to eighth grade students will demonstrate an increase in English academic progress as a result of teacher participation in MBSR.

RQ: What is the long-term effect of teacher participation in MBSR on voluntary teacher tardiness and voluntary absenteeism?

$H_0$1: Sixth to eighth grade teachers will demonstrate no decrease in voluntary tardiness as a result of participation in MBSR.

$H_1$1: Sixth to eighth grade teachers will demonstrate a decrease in voluntary tardiness as a result of participating in MBSR.

$H_0$2: Sixth to eighth grade teachers will demonstrate a decrease in voluntary absenteeism as a result of participating in MBSR.

$H_1$2: Sixth to eighth grade teachers will demonstrate no decrease in voluntary absenteeism as a result of participating in MBSR.

Data Collection

The relationship between teacher mindfulness training participation and student discipline, student academic progress, and voluntary teacher absenteeism was examined. Data included information from the California Department of Education, the U.S. Office of Civil Rights, and an online survey with responses from sixth through eighth grade teachers who participated in mindfulness training over the past 2 years. The survey, an Abbreviated School Climate Survey-modified (Liu et al., 2014), was collected through the online survey platform of Survey Monkey. Survey data collection took place over 19 weeks.

After receiving approval from the Walden IRB (04-13-20-0588804), I used the Walden University Participant Pool to recruit participants. The survey was available for 133 days (as of 09/12/2020). The sample size needed for this survey was determined to be 70 participants with an $\alpha = .05$, a power level of .80, Confidence Interval of 95%. Data were collected and analyzed from the California Department of Education regarding student disciplinary trends and student academic progress, specifically for schools that have participated in mindfulness training over 2 years. A total of 75 people completed the survey. The surveys were reviewed and assessed for completion of at least 90%.

Statistical Assumptions

For a two-way ANOVA, the following statistical assumptions applied:

Assumption #1: There is one dependent variable that is measured at a continuous level.

Assumption #2: There should be two independent variables where each independent variable consists of two or more categorical, independent groups.

Assumption #3: There should be independence of observations, which means that there is no relationship between the observations in each group of the independent variable or between the groups themselves.

Assumptions #4: There should be no significant outliers in any cell of the design.

Assumption #5: The distribution of the dependent variable should be approximately normally distributed in every cell of the design.

Assumption #6: The variance of the dependent variance should be equal in every cell of the design (known as the assumption of homogeneity of variances).

Results

RQ: What is the long-term effect of teacher participation in MBSR on the frequency of student discipline referrals, suspensions, and expulsions in the sixth to eighth grade classroom setting?

$H_0$1: There will be no decrease in student discipline referrals as a result of teacher participation in MBSR.

$H_1$1: There will be a decrease in student discipline referrals as a result of teacher participation in MBSR.

Starting in 2014, The California Department of Education San Francisco Unified School District issued a ban on the use of willful defiance, significantly reducing the

number of students removed from the classroom. No data were available to test for the first hypothesis for RQ1; the null hypothesis could not be rejected.

$H_0$2: There will be no decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

$H_1$2: There will be a decrease in the frequency of student suspensions as a result of teacher participation in MBSR.

A two-way analysis of variance was conducted on the influence of teacher participation in mindfulness-based training on student suspensions and student grade level at Marina Middle School and Francisco Middle School. Grade levels includes sixth, seventh, and eighth grade. All effects were statistically significant at the .05 significance level.

The main effect for teacher mindfulness training participation on student suspensions yielded *F* ratio of $F(1, 6) = 89.04$, $p = .00$ for students whose teachers participated in mindfulness training ($M = 3.88$, $SD = 3.37145$*)* versus students whose teachers have not participated in mindfulness training ($M = 14.5$, $SD = 7.28697$).

The main effect for grade yielded an *F* ratio of $F(2, 6) = 33.73$, $p = .001$ between grade levels of sixth ($M = 8$, $SD = 4.33$), seventh ($M = 1.5$, $SD = 2.12$), and eighth ($M = 2$, $SD = 1.60$) grade students whose teachers participated in mindfulness training versus sixth ($M = 23$, $SD = 4.33$), seventh ($M = 7.5$, $SD = .70$), and eighth ($M = 13$, $SD = 4.34$) grade students whose teachers did not participate in mindfulness. The interaction effect between mindfulness training and grade level was also statistically significant, $F(2, 6) = 5.304$, $p < .05$. Post-hoc comparisons on student suspensions using the Duncan MRT test

indicated that the mean score for sixth-grade students (M = 15.5) was significantly different from the mean score for seventh-grade students (M = 4.5); however, the mean score did not significantly differ from seventh (M = 4.5) and eighth-grade students (M = 7.5) nor between sixth (M = 15.5) and eighth grade students (M = 7.5).

The 2nd hypothesis for RQ1 predicted that there would be a decrease in the frequency of student suspensions as a result of teacher participation in MBSR. The results of this analysis support this prediction. The null hypothesis was rejected.

$H_0$1: There will be no decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

$H_1$1: There will be a decrease in the frequency of student expulsions as a result of teacher participation in MBSR.

Based on the California Department of Education for Marina Middle School and Francisco Middle School, no reported expulsions were beginning 2015 through 2019. No data was available to test hypothesis three. The null hypothesis could not be rejected.

RQ: What is the long-term effect of teacher participation in MBSR on sixth to eighth grade math and English academic progress?

$H_0$1: Sixth to eighth grade students will demonstrate no increase in math academic progress as a result of teacher participation in MBSR.

$H_1$1: Sixth to eighth grade students will demonstrate an increase in math academic progress as a result of teacher participation in MBSR.

A two-way analysis of variance was conducted on the influence of teacher participation in mindfulness-based training on student grade level and student math

scores at Marina Middle School and Francisco Middle School. Grade level includes sixth, seventh, and eighth grade.

The main effect for teacher participation in mindfulness training on math scores yielded an *F* ratio of $F(1, 42) = .06$, $p > .05$, indicating that the effect was not statistically significant between student math scores whose teachers participated in mindfulness training ($M = .245$, $SD = .065$) versus teachers who did not participate in mindfulness training ($M = .249$, $SD = .058$).

The main effect for grade yielded an *F* ratio of $F(2, 42) = .299$, $p > .05$, indicating that the effect of sixth ($M = .22$, $SD = .07$), seventh ($M = .22$, $SD = .05$), and eighth ($M = .25$, $SD = .07$) grade math scores of students whose teachers participated in mindfulness training versus the effect of sixth ($M = .25$, $SD = .07$), seventh ($M = .24$, $SD = .03$), and eighth ($M = .25$, $SD = .07$) grade student math scores teachers who did not participate in mindfulness training was not statistically significant.

The interaction effect between mindfulness training and grade level on student math scores was not statistically significant, $F(2, 6) = .343$, $p > .05$.

The first hypothesis of RQ2 predicted that sixth through eighth grade students would demonstrate an increase in math academic progress as a result of teacher participation in MBSR. With the results, I failed to reject the null hypothesis.

$H_0$2: Sixth to eighth grade students will demonstrate no increase in English academic progress as a result of teacher participation in MBSR.

$H_1$2: Sixth to eighth grade students will demonstrate an increase in English academic progress as a result of teacher participation in MBSR.

A two-way analysis of variance was conducted to compare the main effects of teacher participation in mindfulness-based training on grade level and student English scores at Marina Middle School and Francisco Middle School. The main effect for teacher participation in mindfulness on English scores yielded an *F* ratio of $F(1, 18) = .133$, $p > .05$, indicating that the effect was not statistically significant between student English scores whose teachers participated in mindfulness training ($M = .250$, $SD = .093$) versus student English scores whose teachers did not participate in mindfulness training ($M = .254$, $SD = .085$).

The main effect for on grade level yielded an *F* ratio of $F(1, 2) = .012$, $p > .05$, indicating that the effect of grade levels of sixth ($M = .25$, $SD = .11$), seventh ($M = .25$, $SD = .11$), and eighth ($M = .24$, $SD = .10$) grade student English scores whose teachers participated in mindfulness training versus sixth ($M = .26$, $SD = .11$), seventh ($M = .25$, $SD = .09$), and eighth ($M = .25$, $SD = .06$) grade student English scores whose teachers did not participate in mindfulness training was not statistically significant.

The interaction effect between mindfulness and grade level on student English scores was not statistically significant, $F(2,6) = .012$, $p > .05$.

The second hypothesis of RQ2 predicted that sixth to eighth grade students would demonstrate an increase in English academic progress as a result of teacher participation in MBSR. With the results of this analysis, I failed to reject the null hypothesis.

RQ: What is the long-term effect of teacher participation in MBSR on voluntary teacher tardiness and voluntary absenteeism?

$H_0$1: Sixth to eighth grade teachers will demonstrate no decrease in voluntary tardiness as a result of participation in MBSR.

$H_1$1: Sixth to eighth grade teachers will demonstrate a decrease in voluntary tardiness as a result of participating in MBSR.

Teacher voluntary tardiness data were unavailable from the California Department of Education and the U.S. Office of Civil Rights Data Collection. For the first hypothesis for RQ3, I failed to reject the null hypothesis.

$H_0$2: Sixth to eighth grade teachers will demonstrate a decrease in voluntary absenteeism as a result of participating in MBSR.

$H_1$2: Sixth to eighth grade teachers will demonstrate no decrease in voluntary absenteeism as a result of participating in MBSR.

A two-way analysis of variance was conducted on the influence of teacher participation in mindfulness-based training on the year and teacher absenteeism.

The main effect of the year yielded an F ratio of $F(2, 6) = 1.064$, $p > .05$, indicating that the effect of the year, the within-subjects variable, on teacher absenteeism was not statistically significant during the 2013 ($M = 2.5$, $SD = 3.53$), 2015 ($M = 7.5$, $SD = 4.94$), and 2019 ($M = 6.5$, $SD = .70$) school year.

The main effect of teacher participation in mindfulness training yielded an F ratio of $F(1, 6) = .314$, $p > .05$, indicating that the effect of mindfulness training on teacher absenteeism was not statistically significant between teachers who participated in mindfulness training *(*$M = 5.5$, $SD = 3.61$) versus teachers who did not participate in mindfulness training ($M = 6.83$, $SD = 3.97$).

The interaction effect between the year and teacher participation in mindfulness training on teacher absenteeism yielded an *F* ratio of $F(2,6) = .181$, $p > .05$, indicating that the interaction effect was not statistically significant.

With the results of the analysis, I failed to reject the null hypothesis for the second hypothesis.

The Abbreviated School Climate Survey-modified student behavior subscale was highly reliable (14items; $\alpha = .942$).

Summary

In summary, I used data from the California Department of Education, the U.S. Department of Education Office of Civil Rights, and survey data from 70 middle school teachers who have participated in MBSR. The California Department of Education reported no expulsions for Marina Middle School or Francisco Middle School from 2017 through 2019. There were also no reported office discipline referrals from Marina Middle School or Francisco Middle School from 2017 through 2019. Results from research question one revealed that teacher participation in MBSR does significantly moderate the number of suspensions, specifically between sixth and seventh-grade students whose teachers participated in mindfulness training. Results from research question two showed teacher participation in MBSR does not significantly moderate the relationship between grade level and student English and math scores. There was not enough data from the U.S. Department of Education Office of Civil Rights regarding teacher tardiness. Results from research question three revealed that teacher participation in MBSR does not significantly moderate the frequency of teacher absenteeism.

The final chapter includes a discussion regarding implications, conclusions, and recommendations.

Chapter 5: Discussion, Conclusion, Implications and Recommendations

Introduction

The purpose of this quantitative study was to understand the impact of teacher participation in mindfulness training on teacher absenteeism, student disciplinary behavior, and student success within an urban education setting after a 2-year implementation period. Mindfulness training can take on several different forms regarding professional development for teachers, such as CARE or Mindful Schools. Chapter 2 presented the introduction of mindfulness training to the educational environment for teachers and educators and the benefits of these programs, which include reductions in burnout, psychological symptoms, and teacher turnover, as well as increases in responsiveness and effectiveness in the classroom (Flook et al., 2013). Chapter 2 also posed the question, "Why should a stress reduction practice predominantly found in corporate settings be implemented in the educational atmosphere when several different factors impact participant behaviors?" Current research suggested that teacher participation in mindfulness could benefit student success. While these benefits can entice administrators, there is still hesitation about the full-scale implementation of MBSR, especially with the rapidly changing educational setting. Furthermore, there are still lingering questions about the actual effectiveness of these interventions and whether they have a meaningful impact on the participants.

This quantitative analysis aimed to identify whether teacher participation in MBSR initiated a shift in student disciplinary behavior, student academic progress, and teacher absenteeism behavior over 2 years. Currently, research is available that reviews

the short-term impacts of teacher participation in MBSR and related training, but I specifically sought to identify the progress of these intervention tools over 2 years to provide insight on a facet of this topic less explored. This final chapter will discuss the interpretation of the findings from analyses conducted in Chapter 4, how these results relate to literature, recommendations, and implications, and provide a conclusion.

Interpretation of the Findings

Theoretical Framework

Buddhist traditions and teachings are the most cited origin of mindfulness within the theoretical background of MBSR. Several researchers have since contributed to understanding the practice and its implications for living a successful and happy life. Empirical research regarding mindfulness versus mindlessness began emerging in 1974, and Langer quickly became a prominent voice in mindfulness-based research. In 2000, Langer reviewed her previous 1989 stance on mindfulness and mindlessness, which is defined as the "heightened state of involvement and wakefulness or being in the present" (Langer & Moldoveanu, 2000). When working through the lens of education, research available and cited in this study supported the understanding that more mindful teachers perform better in the classroom and show positive impacts both for self-analysis and outward performance metrics.

Within the realm of mindfulness research, several studies have formed based on specific classroom behaviors. This study followed the pro-social classroom model's theoretical framework proposed by Jennings and Greenberg (2009). The pro-social classroom model suggested that emotionally and socially competent teachers could

expect to experience better personal and student outcomes. Further analysis of the pro-social classroom model revealed their suggestion for an optimal classroom climate, which includes active focus from teachers, strong communication and problem-solving skills, and appropriate expressions of emotion. Mindfulness, at its core, directly relates to an active state of being to achieve success.

According to literature regarding interventions designed for educational success, the expectation of teacher participation in MBSR or related interventions is that teachers have the tools to better equip themselves in creating classroom environments that encourage student success. This study addressed the impact of teacher participation in MBSR training on student disciplinary behavior, student academic progress, and teacher absenteeism, reviewed over 2 years, which is longer than what current studies review. I sought to provide further evidence that, relating to the pro-social classroom model, those who have participated in mindfulness training will positively affect student behaviors and teacher absenteeism and affect a positive shift towards an optimal classroom climate after a long-term period.

Research Question 1

Research Question 1 explored the impact of teacher participation in MBSR on student disciplinary action and student grade level, specifically student referrals, suspensions, and expulsions. Over the past decade, many school districts, including those in California, have put in work towards implementing practices and policies that minimize harsh and biased disciplinary action towards students, specifically minority students. Mindfulness components are becoming a popular tool for educators to use as an

alternative to punishment. In 2017, the California Health Report published an article regarding the "Calm Classroom" program partnership between UCLA, the Los Angeles school district, and "Mindful Schools." A highlight of this article is the Positive Behavioral Interventions and Supports. Students are encouraged to talk about issues and challenges they face openly and given tools to help successfully manage these hurdles. These programs tie back to the idea that mindfulness, whether taught to students by teachers or outside organizations, shows positive benefits when used to minimize disciplinary action.

After analyzing data provided by the California Department of Education, the results showed that teacher participation in MBSR significantly affected student suspensions, particularly between sixth and seventh grades. The analysis done for Research Question 1 results showed a statistically significant correlation between teachers' participation in MBSR training and how they interact with students to diffuse situations that could potentially lead to student suspensions. I found participation in MBSR has a positive effect on teachers' compassion and behavior due to teachers responding less reactively to student behavior (Hayden et al., 2019; Yoon, 2002) and overall enhanced student-teacher engagement (Flook et al., 2013; Franco et al., 2010). In comparison with Hayden et al. (2019), this study focused on the impact of teacher participation in MBSR on student behaviors. Their study found that teachers reported positively to MBSR practices, and based on their experiences, they were able to respond more appropriately to negative student behaviors.

I concluded that this analysis showed a positive trend in the influence of teacher participation in MBSR on student suspensions; however, I was unable to test the hypotheses for student disciplinary referrals and student expulsions. As teachers are considered one of the most influential role models in children's' lives, this information on student suspensions supports the notion that mindfulness training has a tangible impact in areas that can disrupt a student's education.

In 2011, Mindful Schools assessed their mindfulness-based programming at three Oakland Public elementary schools. This study included 937 children and 47 teachers. Although the results were not statistically significant, there were some conclusions drawn that teachers became more mindful as they engaged in mindfulness programming in the classroom along with students, teachers who received direct mindfulness training benefited more significantly than those who did not, and both in-class programming and mindfulness training can be a cost-effective solution to reduce stress. Boys were shown to have a higher percentage of improvement regarding behavior over time when engaging in mindfulness practices than girl students (Fernando, 2011).

Fernando's (2011) study focused on both student and teacher participation in mindfulness training, while my study strictly focused on the influence of teacher participation in MBSR on student outcomes. Both studies provided significant insight into the effect of mindfulness trainings on the overall classroom environment and the different components that can be viewed as making up a positive classroom atmosphere.

Smith et al. (2012) reviewed the Mindful Schools program to determine both the short and long-term effects of the program on student behavior, attention, mindfulness,

and transition time, and teacher behavior, attitudes, and opinions at the start of the program, immediately following the program and at the end of the school year. Overall, the results of this study found that mindfulness did benefit students in becoming calmer and more focused, improving levels of self-awareness and awareness of others. Teachers reported similar benefits of the program, specifically toward the benefits of having something to share with their students. Within the component of student behavior (mental, emotional, physical, and social habits), Smith et al. (2012) found that immediately after the program, students who had participated showed a statistically significant difference from those who did not, and that these effects persisted over time. These findings are like the current study's findings that the presence of mindfulness positively effects student behavior over time; however, Smith's (2011) study does not focus specifically on disciplinary behavior.

Research Question 2

While this study focused on teacher participation in MBSR, student programs have also increased in educational environments, with the goal of students gaining better emotional awareness and regulation and improved behavior. Although not focused on student participation, I sought to identify how students respond academically to implementing mindfulness practices by their teachers over an extended basis. Mindfulness centered on improving emotional well-being and several studies suggested that a student's mental health and academic performance are significantly linked (Wigelsworth et al., 2017).

I failed to reject the null hypothesis for Research Question 2, where the results indicated there was not a statistically significant effect of teacher participation in MBSR on the sixth, seventh, and eighth-grade student English or math scores. Several studies examine the direct effect of student participation in MBSR and its correlation to student academic progress. Still, there are fewer focusing on how teacher participation can affect student academics. While this study's results failed to identify a correlation between the two variables, more research may be necessary to determine potential links and the potential impact. These results were unable to prove a statistically significant effect on teacher participation in MBSR on student academic progress. Surprisingly, this is not uncommon when trying to identify the link between the two variables. While researchers agree that mindfulness can hold weight in the classroom, there is still little research to definitively support whether teacher participation in mindfulness is associated with successful student academic outcomes. Caballero et al. (2019) were able to find an association between the presence of mindfulness and better academic outcomes with middle school students; however, the researchers also pointed out that these findings were correlational rather than causal. This study is also explicitly based on student participation in mindfulness training rather than teacher participation. Additional research is necessary to better determine the relationship between teachers, mindfulness training, and student outcomes. There may be other factors influencing this relationship that can provide greater insight into implementation. Traditionally, mindfulness-based interventions are seen in adult applications, and modifications are necessary to meet the needs of school age children. While this current study found no significant link between

teacher participation in MBSR and student academic behavior, there are studies that show MBSR has positive impact when students are directly engaged (Zack et al., 2014). This study adds value to the needed perspective of the role teachers have when influencing students in the classroom as well as understanding whether mindfulness interventions are a useful tool for all involved.

Research Question 3

Teacher stress is a well-known phenomenon, with several studies discussing its origin and other related factors and subfactors. When exploring the topic of teacher stress, information is also readily available regarding MBSR techniques to reduce teacher stress, burnout, and turnover. Although there is significant research to support the presence of teacher stress and distress, less information is available regarding teacher absenteeism, specifically how MBSR combats voluntary teacher absenteeism in today's school climate.

When I first generated this study, teacher demands included interactions with students and their needs, colleague and administrator demands, parent/guardian interactions, and emotional requirements. Managing these responsibilities required a high level of awareness, empathy, and mental flexibility (Roeser et al., 2012). While I could not significantly link teacher participation in MBSR and teacher absenteeism, more research is necessary to determine a definitive link and provide insight on the presence of mindfulness in education. Research has concluded that any human services professionals who experience tasks that require significant emotional labor can benefit from mindfulness training in their personal and professional lives (Poulin et al., 2008). This

study's results add to the current understanding of teacher participation in MBSR, specifically on the long-term presence and absence of impact.

Research Question 3 hypothesized that teacher participation in MBSR would affect teacher tardiness and voluntary teacher absenteeism. This analysis identified no statistical significance between teacher participation in MBSR and teacher absenteeism between 2013-2017. I failed to reject the null hypothesis. Researchers cite MBSR as a potential solution to combat teacher stress and burnout, leading to teacher absenteeism (Embse et al., 2019). This study's results did not indicate a significant effect between the independent variable of teacher participation in MBSR and the dependent variable of teacher absenteeism, but further analysis may be necessary to determine if this is true in similar populations outside of the study sample.

A large portion of mindfulness research in education focuses on the impact of MBSR interventions on student emotional behavior and emotional regulation. Fewer studies address teacher participation in MBSR and the impact on teachers, students, and schools. Embse et al. (2019) focused on this topic, reviewing several different types of interventions and their approach to alleviating teacher stress and its consequences. These interventions are known as behavioral, cognitive-behavioral, and mindfulness-based. What Embse et al. found is that all three types of interventions can be useful to mitigate teacher stress and there was no difference that mindfulness-based interventions were more effective that other intervention types. While no data was available to test teacher tardiness, my results showed no statistically significant effect of MBSR on teacher absenteeism, very different from Embse et al.'s assessment.

These two studies work to provide more insight on teacher behavior and its relationship with MBSR. More research is necessary to further understand teachers' role in MBSR, the tools used, and the long-term needs in order to maintain intervention effectiveness.

An Abbreviated School Climate Survey-Modified Results

Cronbach's alpha for this survey indicated that based on the number of items in the survey, the questions were closed related. In an analysis of the survey responses, many of the teachers who have participated in mindfulness training over the past two years indicated that they noticed a change in students' behavior in areas such as how they treat others and respecting others' right to work and learn without disrupting. These findings support the understanding teacher participation in MBSR has some positive impact on the classroom climate. The results of this survey also eluded to the existence of stronger classroom management by teachers after their engagement in mindfulness training, which is critical factor for a successful classroom environment (Brouwers & Tomic, 2000).

Current research in understanding teacher stress and its impact on the classroom support the presence of mindfulness to combat this phenomenon. When assessing school climate, researchers suggest that teachers' perception of school climate can affect teacher job satisfaction and efficacy (Collie et al., 2012). The student teacher relationship is a critical component to student success. The survey results indicated that teachers who participated in MBSR over the last two years responded more favorably towards positive

student behaviors. This information sheds light on the scope of influence of teachers on student success and behavior.

Limitations of the Study

There were several limitations to this study. Within this research topic, few studies focus on teacher participation in MBSR. This lack of information left a gap in identifying past research trends for teacher participation in MBSR. The generalizability of this study is limited to sixth, seventh, and eighth-grade teachers. Data for this study also focused on populations in urban areas, where there may be different variables that affect these geographical locations versus teachers in rural areas. The choice to focus on urban primary school teachers does not negate the potential effect of MBSR on all primary and secondary teachers. Still, this data limits the generalization to similar primary school teacher populations in urban areas. The sample size for the survey portion of this study was also limited to 75 participants. Larger sample sizes could potentially produce a result from a teacher's perspective as differences between student and teacher populations may show statistically significant differences due to the lower risk of exaggerated effects (Biau et al., 2008) and survey responses may produce more identifiable outliers in larger groups. Although purposive sampling provides the opportunity to gather useful data from individuals within a specific group, there can be some limitations to research using the technique, such as potential for researcher bias and an opportunity for outside observers to question the relevance to the information collected. With an understanding of this, I worked to ensure the data I collected represented reflected a true demographic with tangible data that can be referenced.

Additionally, other researchers may employ different sampling techniques that may provide different results than the information analyzed for this study and have less of impact of potential researcher bias.

Within this area, there is a need for continued research on teacher participation in MBSR on student behavior and student academic progress, and teacher absenteeism with primary and secondary teachers and their various years of experience. This study's findings did not include all teacher grade levels within primary and secondary schools. Additionally, data were not available for assessment regarding student office referrals and expulsions nor teacher tardiness. Access to this data would potentially allow for a closer review of student disciplinary patterns and the relationship between teacher participation in MBSR and teacher behavior (Gouda et al., 2016).

Recommendations

With the growing trend of mindfulness training in education, it is crucial to continue to monitor the long-term implications of the practices in the classroom. The educational environment has long been heralded as an opportunity to foster the growth and progress of students. With teachers playing such a critical role in student development, education professionals should continue to pursue alternative methods to address teacher distress. Since the pandemic began in March 2020, many teachers have found themselves in situations where they needed to enhance creativity and utilize emotional labor in ways they were not used to engaging in. Considering the additional impact of personal constraints that this pandemic imposed, reviewing opportunities for

teachers to build on their skills to foster a positive classroom climate is a significant step forward that can lead to less teacher stress and burnout.

Although this study focused on primary school teachers, further research can address the larger primary school teaching population to gain more insight into what role MBSR has in the educational setting. As this research focused on the theoretical framework of the pro-social classroom model (Jennings & Greenberg, 2009), additional analysis can include a review of specific MBSR practices related to teacher behavior and student success. Further consideration of MBSR interventions' success can better inform educators and administrators when addressing potential concerns within the classroom, such as teacher stress, burnout, and teacher absenteeism. In the increasingly virtual and hybrid learning environment, professionals in education should stay aware of potential detriments to creating a positive educational environment and practices proven beneficial to students, teachers, parents, and guardians. Within this research area, there is a need to review teacher participation in MBSR on student behavior, academic progress, and teacher absenteeism with teachers in primary and secondary educational institutions.

Implications

From an organizational level, the potential impact for positive change regarding this study can benefit the primary and secondary academic environment. With this information, educators and teachers can better approach classrooms with how their MBSR practices impact students. Through policy, this data can support further implementation of MBSR in urban teaching environments with a closer lens on student academic progress and teacher absenteeism to determine whether results are still not

significant or whether a change has occurred. In practice, MBSR training can begin to focus more on direct interactions between students and teachers and teacher behavior as it relates to emotional regulation and stress reduction. This study was also conducted pre-covid in 2020, so there may be different observations due to the changing classroom climate. Several theories are available considering practical research related to MBSR. A potential opportunity is for a base theory to emerge, representing critical findings from MBSR research in the classroom from a teacher's perspective. This theory, grounded in the assessment that teachers play such a crucial role in student development, can further support the need for research in teacher behavior on student success. The subsequent analysis is also necessary to further engage educational professionals on the market for emotional support and engagement interventions. These modifications can help provide better data to review regarding the success of these training or whether alternatives are available to assist teachers with hurdles identified throughout public research.

With the recent changes to educational practices like full hybrid and virtual learning, exploring out of the box trends will be vital in addressing teacher retention and stress. Researchers should begin exploring individual schools and districts in urban and rural areas that have implemented MBSR and what that means from a long-term perspective for teachers and students. By proactively working to identify and rectify potential concerns with tangible solutions, teachers and educational professionals can be more equipped to adapt and engage students with flexibility and ease.

Conclusion

What does this research say? Simplistically, teacher participation in MBSR can positively impact some classroom areas but have no impact on other places in the classroom. Although not the desired outcome of the hypotheses, this research still adds value to the still unclear role of MBSR in education on a long-term basis. Another exciting component to this topic is teachers' perspective on using MBSR techniques and how they see their students changing in the classroom between teacher/student interactions and student/student interactions. All this information is beneficial to supporting teacher retention and emotional awareness. Additional teachers' perspectives also increase buy-in and incorporates more meaningful changes that directly relate to these interventions' success. This pandemic has created an entirely new set of challenges for teachers when addressing teacher stress and burnout and students' attention and access. The role of mindfulness can be a critical component to keeping teachers and students alert and engaged in the learning environment. This study focused on the long-term implications of MBSR in a California school district. While the results provided a mixed assessment on the success of teacher participation in MBSR, it does call attention to the need for further evaluation of the place of these types of interventions in education. Furthermore, educators and researchers can begin to evaluate and whether these interventions should continue with reassessment or if researchers and educators should move towards more substantial approaches to enhancing teacher and student success.

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Appendix

Table 1

Descriptive Statistics of Teacher Participation in Mindfulness Training on Grade and Student Suspensions

Mindfulness	Grade	*M*	*SD*
Yes	Sixth	8	4.33
	Seventh	1.5	2.12
	Eighth	2	1.60
	Sixth	23	4.33
No	Seventh	7.5	.70
	Eighth	13	4.24

Table 2

Two-way Analysis of Variance of Teacher Participation in Mindfulness Training on Grade and Student Suspensions

Source	*df*	*F*	n_p^2	*p*
Grade	1	33.739	.918	.001
Mindfulness	2	89.043	.937	.000
Grade * Mindfulness	2	5.304	.637	.047
Error	6			

Table 3

Descriptive Statistics for Teacher Participation in Mindfulness Training on Grade and Student Suspensions

Mindfulness	Grade	*M*	*SD*
Yes	Sixth	.22	.07
	Seventh	.25	.05
	Eighth	.25	.07

No	Sixth	.25	.07
	Seventh	.24	.03
	Eighth	.25	.07

Table 4

Two-Way Analysis of Variance of Teacher Participation in Mindfulness Training on Grade and Student Math Scores

Source	*df*	*F*	n_p^2	*p*
Mindfulness	1	.064	.001	.801
Grade	2	.299	.002	.743
Mindfulness * Grade	2	.343	.002	.711
Error	42			

Table 5

Descriptive Statistics of Teacher Participation in Mindfulness Training on Grade and Student Math Scores

Mindfulness	Grade	*M*	*SD*
Yes	Sixth	.26	.11
	Seventh	.25	.09
	Eighth	.25	.06
No	Sixth	.25	.09
	Seventh	.25	.11
	Eighth	.24	.10

Table 6

Two-Way Analysis of Variance of Teacher Participation in Mindfulness Training on Grade and Student English Scores

Source	*df*	*F*	n_p^2	*p*
Mindfulness	1	.013	.001	.912
Grade	2	.012	.001	.988
Mindfulness * Grade	2	.012	.001	.988
Error	18			

Table 7

Descriptive Statistics of Variance of Teacher Participation in Mindfulness Training on Teacher Absenteeism

Year	Mindfulness participation	*M*	*SD*
2013	Yes	2.50	3.53
	No	5.50	7.77
2015	Yes	7.50	4.94
	No	9.00	1.41
2017	Yes	6.50	.70
	No	6.00	1.41

Table 8

Two-Way Analysis of Variance of Teacher Participation in Mindfulness Training on Teacher Absenteeism

Source	*df*	*F*	n_p^2	*p*

Year	2	1.064	.318	.402
Mindfulness	1	.314	.050	.596
Year * Mindfulness	2	.181	.057	.839
Error	6			

Table 9

An Abbreviated School Climate Survey-Modified Results (N = 75)

Scale	*n*	*M*	*SD*	Alpha
Student Behavior	75	53.7867	11.68655	.942