INFLUENCING OR INNEFECTIVE? THE RELATIONSHIP BETWEEN MINDFULNESS ACTIVITIES ON K-12 TEACHER PERCEIVED STRESS

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Abstract

School leaders are always looking for ways to create welcoming environments for students and staff. The purpose of this study was to determine the impact that mindfulness activities had on teacher perceived stress. This study also examined the causes of the teachers' stress and supports that can be put in place to help reduce teacher stress. This mixed-methods study used surveys to collect data prior to the study, during the study, and after the completion of the 24 mindfulness activities conducted over an eight-week period. Quantitative and qualitative data was gathered using Likert scale, multiple choice, and an open-ended response. The data was gathered and then analyzed to determine the impact of mindfulness activities on perceived stress. The pre, post, and mindfulness activity data was triangulated to determine the relationship between mindfulness activities and teacher stress. The research questions focused on the causes of teacher perceived stress and the perceived effect that mindfulness activities had on their stress. The last two questions examined if demographics made a difference on teacher perceived stress and the teachers' perceptions of what impact the mindfulness activities would have if implemented into their classroom. The overall finding was that the mindfulness activities did decrease teacher perceived stress and that the largest stressor for teachers was not having enough time. All teachers in the study believed that the mindfulness activities would have an impact on students in their classroom and demographics did not show a significant difference in the decrease of stress of the participants.

CHAPTER I

Introduction

Stress can impact teachers' health in a variety of ways and teachers who are stressed can create environments that adversely impact others. Teachers in today's society are voicing that they feel emotional and physical strain that is making it difficult to function in their daily lives. The field of education has been shown to have high stress levels. "A recent Gallup Poll determined that 46 percent of teachers reported high daily stress ranking teaching as one of the highest in occupational stress" (Gallup, 2014, as cited in DiCarlo et al., 2019, p. 485). This stress is reported to be felt by teachers more than ever before and teachers are leaving the profession at a fast pace. "As a result, occupational stress and its influence on the number of teachers leaving the profession is a growing global concern" (Brunsting et al., 2014, as cited in Junker et al., 2021, p. 1). In order to maintain quality educators in the workplace there needs to be supports in place to help reduce the stress that teachers perceive they are under on a daily basis.

Background

As a district administrator that was previously a teacher and principal, I have observed many changes over the past twenty years in both states that I have been employed. In my current position as a district administrator, I have observed the continuous changes that are demanded of teachers along with all of the additional mandates that are put onto their plates. This stress is caused by multiple sources. "Occupational sources of stress include school organization, high job demands, and lack of support and autonomy" (Greenberg et al., 2016, as cited in DiCarlo et al., 2019, p. 485). The high levels of stress have an impact on the students. "Perceived stress can lead

to negative classroom environments and poor academic outcomes for students, as well as negatively affect teacher well-being" (Kidger et al., 2009, as cited in DiCarlo et al., 2019, p. 485) as well as the teachers physical and mental wellbeing.

> In the past few decades, many studies have highlighted that teaching is a stressful profession, and research carried out in many countries and in Italy have explored the determinants of teachers' stress and the effects of stress on their physical and psychological health. (Bauer et al., 2006, as cited in Zurlo, 2016, p. 28)

The problem of teacher perceived stress is at a critical breaking point at this time and we need to discover what is causing this stress and how to intervene. Supports need to be identified to help alleviate some of the perceived stress for staff.

> Elevated stress levels are a major problem for teachers around the world as they are more likely to be affected by occupational stress than individuals in most other professions. As a result, occupational stress and its influence on the number of teachers leaving the profession is a growing global concern. (Brunsting et al., 2014, as cited in Junker et al., 2021, p. 1)

Research on teacher perceived stress can help provide information about the causes of this stress which can then lead leaders to provide supports that will help teachers with self-care. These tools will help reduce stress and in turn help retain teachers in the field of education. Researching the implementation of mindfulness activities into teachers' routines will help demonstrate if mindfulness strategies are effective. The research will determine how effective mindfulness is and if it could be used to provide a positive workplace climate and culture. There has been mindfulness research completed that has found benefits for individuals trying to reduce stress. "One

proposed mechanism by which mindfulness contributes to improvements in physical health is stress reduction. Mindfulness is associated with lower levels of stress" (Ballantyne et al., 2021, p. 322) and now we need to further research this impact on teachers. Research on mindfulness in education has recently become a topic of conversation because of the pandemic. "Mindfulness 'in' education has, however, become more mainstream, largely because it operates from a more instrumental perspective. Such mindfulness training is 'attractive' as it comes packaged with a range of self-soothing and concentration techniques" (Brito, 2021, p. 92). Districts are looking for ways to address student and staff needs. More research is needed on how mindfulness can impact stress in the workplace for staff. The research can then be used to determine if mindfulness may benefit students and equip them with the tools needed to address their physical and mental health.

Capstone Focus

This action research will be done in order to identify what teachers perceive as being stressful and how the implementation of mindfulness activities impact that perceived stress in a rural Pennsylvania school. This research will also identify if these educators would implement the mindfulness activities in their own classrooms. K-12 educators volunteered to participate in a group that utilized mindfulness activities. The data was used to determine if the activities had an impact on their perceived stress. "Although relationships between mindfulness and physical health have been examined further research is needed to clarify the nature of this relationship and to identify which aspects of mindfulness (a multifaceted con-struct) are most directly associated with health" (Grossman et al., 2004, as cited in Ballantyne et al., 2021, p. 321). This research

will provide more data about the impact on teachers perceived stress, which can impact their health.

Participants in this research study will include K-12 professionals in the Purchase Line School District. All participants will be volunteers and will be given a consent form and a survey at the beginning of the study. The survey given at the beginning will gather demographic information, along with their knowledge of mindfulness and perceived stressors. The teachers will participate in mindfulness activities three times a week for eight weeks and after each activity complete a mindfulness survey. The mindfulness survey will gather information about the effectiveness of the mindfulness activity for the day along with participation data. After the completion of the eight weeks of interventions the teachers will complete a post survey on perceived stress and mindfulness. The data gathered will help determine the effect that mindfulness activities had on teacher perceived stress.

Research Questions

The data gathered from the teacher surveys given at the beginning and end of the eight weeks along with the mindfulness activity surveys will answer the following research questions:

Research Question 1. What are the perceived causes of teacher's perceived stress?

Research Question 2. What is the perceived effect on how mindfulness has affected their stress level?

Research Question 3. Do the demographics of a teacher make a difference in their perceived stress?

Research Question 4. What is the teacher's perception of the impact mindfulness activities would have on their classroom?

Expected Outcomes

Participants in this research will be participating in mindfulness interventions. Survey results from before and after will be gathered and compared to determine the impact of mindfulness on teacher perceived stress. The survey that is completed for each activity will compare the teachers perceived stress level before and after the activity to determine the effectiveness of the mindfulness activity and the possibility of implementation in the classroom. This data will provide information to determine if the mindfulness activities are beneficial to teachers and if the teachers would be willing to implement this activity for students.

Fiscal Implications

There are some indirect costs to this study. These include the time of teachers to participate in the mindfulness activities and complete the surveys, along with the time of the researcher. The other indirect cost is the cost of the teacher devices they use to complete the surveys and mindfulness activities. All teachers have a device provided by the district.

All surveys will be created, distributed, and collected using a Google form. The district is a Google district, so this is of no cost to teachers or staff to use. The mindfulness activities will be embedded into the Google Form that is sent for teachers to submit after completing the activity.

Summary

This study will examine the impact on teacher perceived stress by implementing mindfulness activities three times a week for eight weeks. Volunteers will be teachers from the Purchase Line School District and this study will use a mixed methods approach. If the data collected demonstrates that the mindfulness activities reduced the amount of teacher perceived stress, then the district will implement mindfulness professional development and activities for all staff. If that would be shown to be effective, then the district would move to implementing mindfulness activities in to the classrooms. Data gathered will also provide insight on what the teachers perceive as stressors. This data will be used to make changes to the environment in order to create a less stressful work environment or if inclusive used to develop a plan of what the next step for the district will be to create the best environment for student learning to take place.

CHAPTER II

Review of Literature

Stress is something that is unavoidable and happens to everyone in their daily life. Everyone has to find a way to cope and manage stress in their life. Individuals must find ways to reduce the negative impacts of stress on their psychological and physiological health. Stress can be detrimental to everyone's physical and mental health. Habibzadeh (2015) states:

> Long term exposure to stress or chronic stress can lead to serious physical and psychological problems such as headaches, fatigue, depression, anxiety, stomachache, heart problems, chest pain, asthma, hypertension, liver dysfunction, diabetes, arthritis, suppressed immune system, skin conditions, irregular ministerial cycle, infertility, accelerated aging process, and premature death. (p. 1)

While stress exists everywhere, the focus of this study will be teacher perceived stress and the impact of mindfulness activities on teacher perceived stress. All career fields can be stressful, and this includes education (Becker et al., 2022). The stress that educators encounter can cause them to leave the education field and retire early (Becker et al., 2022).

This literature review will focus on the history of mindfulness, mindfulness practices, and how those mindfulness practices can be practiced in the field of education. The literature review will then examine the state of education today, including teacher burnout and teacher retention. The final section will describe stress, strategies to cope with stress and the impact of stress. Many studies have been done on mindfulness and its impact on health-related fields, but more research is needed on how mindfulness could

impact teachers. This study will provide information on how mindfulness activities impact teacher perceived stress in a rural school district.

Mindfulness

This review begins with a look at mindfulness and the history behind mindfulness. “At its core, mindfulness is about two things: focusing your attention on the present moment and not to evaluate all the concepts presented at the moment” (Liu et al., 2022, p. 4). Mindfulness allows us to focus on what is currently happening and clear our minds so that we can process everything clearly and without judgment. People have many different ways that they can communicate, share information, and share their opinions. At times all of these communications can lead to individuals judging others and mindfulness practices can be used to practice being non-judgmental and accepting (Roy, 2021).

Mindfulness began in the Buddhist tradition. “It appears to have been T. W. Rhys Davids who first translated the Buddhist technical term sati (in its Pali form) or smriti (in its Sanskrit form) by the English word ‘mindfulness’” (Gethin, 2011, p. 263). These Buddhist teachings help individuals focus on the current surroundings and what is happening in that exact moment. The practice of mindfulness can help us improve and make it a habit. There are daily stressors that exist, and educators need to be able to find a way to remain focused and relieve stress in order to maintain longevity in the field of education. Mindfulness practices can help them build a sense of awareness and can be practiced at any time in order to build awareness (Roy, 2021).

Certain practices at times can be called mindfulness, but at times they are mislabeled and not really mindfulness practices. Mindfulness can be practiced in many ways.

Examples

Mindfulness is used by individuals to help focus on the present and some have seen benefits. Research states, "It has been suggested that mindfulness allows for adaptive coping and managing stressful situations or experiences. Mindfulness is also associated with improved psychological wellbeing" (Hepburn et al., 2021a, p. 3). While practicing mindfulness an individual must stay focused. Roy (2021) states:

> It is focusing and refocusing from moment to moment to expand awareness and discover inner peace. Developing this skill weaves a translucent thread of lucidity throughout the fabric of our existence. It allows the fullest and authentic expressions of self. (p. 445)

An example of practicing mindfulness would be to focus on your breathing for a certain length of time. This would mean focusing on the breathing itself and not to anything else that is happening around you at the time.

Non-Examples

If mindfulness is focusing on the present, we have to think about examples of times of when we are not practicing mindfulness. In modern society, there are many distractions that can keep us from being mindful. If you are driving and decide to text on your phone, you are not being mindful and present. When many individuals sit down to eat, they are either watching television, on their phone, or computer and therefore, are not present in enjoying and focusing on the meal. There are practices that have mindfulness components that individuals confuse as being mindfulness practices, such as compassion training and mindful based interventions (MBI) Roca et al. (2021) states:

> Mind training as a way to alleviate unnecessary suffering while enhancing flourishing and well-being is central to both mindfulness and compassion practices. However, these MBIs differ in their emphasis 1) being in the present moment is the core of mindfulness, whereas compassion includes exercises evoking past and future scenarios; 2) whereas mindfulness mainly trains a nonjudgmental acceptance of one's experience, compassion practice trains the affective and motivational states of empathy, warmth, and kindness toward oneself and others; 3) contemporary mindfulness also promotes the observer's "neutral" standpoint, whereas compassion emphasizes the appraisal of one's "negative/unpleasant" thoughts and feelings; and 4) compassion training has a more prominent ethical component than does mindfulness training. Hence, mindfulness training emphasizes self-regulation of attention. (pp. 354-355)

There has been confusion about the exact meaning of mindfulness, and some have questioned the benefits (Liang et al., 2018.) Mindfulness has a long history and in order to understand mindfulness we have to examine it from the beginning.

History of Mindfulness

Mindfulness has become a focus in recent years as COVID-19 caused an increased need for something to help support individuals' health, both mentally and physically (Gürpınar & Ikiz, 2022). "Studies on this subject show that integrating mindful attention awareness into school culture will create positive effects for both students and teachers" (Gürpınar & Ikiz, 2022, p. 277). The research on the impact of mindfulness in education is recent, but past research has been used to demonstrate that mindfulness

generally helps to reduce stress, anxiety, pain, and depression (Liu et al., 2002; Roemer et al., 2022).

Hinduism

All of the ancient civilizations encouraged individuals to find their inner peace and have provided different recommended paths for people to achieve inner peace (Roy, 2021). Shah (2021) explains:

> Mindfulness models trace their roots back to Buddhist traditions, which are themselves rooted in ancient Hindu beliefs and practices. Both Hindu and Buddhist philosophies share the idea of non-dualism, which refers to a state of consciousness in which dichotomies are transcended and a unification is achieved that reveals the true nature of both ourselves and the world as formless and indivisible. (p. 2)

Hinduism presumes that everyone at some point in time suffers and that we must work on ourselves in order to free ourselves of the suffering (Shah, 2021). Mindfulness allows us to regain our focus and be present in the moment while releasing ourselves in an attempt to unite our soul with the universe (Shah, 2021).

Buddhism

Mindfulness can be traced back to not only Hinduism, but also Buddhism. “The Buddhist scholar Rupert Gethin traces the term *mindfulness* back to T. W. Rhys Davids, who first translated the Buddhist technical term *sati* into this particular English word” (Nilsson & Kazemi, 2016, p. 183).

There are differences between Hinduism and Buddhism. “In contrast to Buddhism, however, Hinduism emphasizes the law of karma in the universe and

promotes the acceptance of suffering as a natural result of karma" (Shah, 2021, p. 3). Buddhism concentrates on how our attention is connected to our memory (Hepburn et al., 2021a).

Mindfulness practices such as being present in the moment by focusing with a purpose and not judging others comes from Buddhist philosophies (Reiser et al., 2016). Gethin (2011) found the following connection:

> The use of Buddhist 'mindfulness' practices in the context of western clinical psychotherapy emerged in the 1980s and early 1990s and is associated above all with the name of Jon Kabat-Zinn and his work at the Stress Reduction Clinic (founded in 1979) and Center for Mindfulness in Medicine, Health Care, and Society (founded 1995) at the University of Massachusetts. Jon Kabat-Zinn's 'mindfulness-based stress reduction' (MBSR) in turn fed into the development of 'mindfulness based cognitive therapy' (MBCT). (p. 268)

Mindfulness and Yoga

In order to determine what would be effective supports in education we have to look at the different definitions and ways that mindfulness is practiced. Throughout history mindfulness has been defined in different ways. Nilsson and Kazemi (2016) gives us insight to the definition of mindfulness:

> What remains to be seen is whether "mindfulness," as used by Kabat-Zinn and others, is really the same as "mindfulness" offered by Rhys Davids as the translation of the Pali term sati. Whether it is possible, as Teasdale suggested in his letter to Kabat-Zinn, to extract the essence of Buddhist meditation from its context of *karma* and rebirth, which was part of Indian culture 2,600 years ago,

> and insert it without change in the very different cultures of the United States and Europe of the 21st century. (p. 184)

One of the ways that mindfulness has been put into practices is by utilizing yoga. Yoga has been shown to have a positive impact on individuals. Tihanyi et al. (2016) states:

> The positive psychological effects of yoga on healthy adults' well-being, defined as an increased rate of calmness and a state of pleasant enthusiasm, and a decreased rate of anxiety and depressive symptoms, were reported by a number of empirical studies. (p. 114)

Individuals can use yoga as a mindfulness practice in order to decrease anxiety and reduce stress. Yoga practices center around movement and different breathing techniques (Bartos et al., 2022).

Yoga has been connected to mindfulness as well as meditation. Yoga sutra is one of the oldest texts that is able to provide information about meditation. Yoga sutra has roots in Hinduism and includes the same practices as mindfulness. Some of these practices include activities focused on breathing, sensation throughout the body, and maintaining focus (Tomasino et al., 2014).

Mindfulness and Meditation

Meditation has roots in Hinduism and Buddhism (Tomasino et al., 2014) and was integrated into the modern version of mindfulness by Dr. Jon Kabat-Zinn when he created the Mindfulness-Based Stress Reduction method (Lin et al., 2022). "Mindful meditation by Kabat-Zinn includes body scan method where the practitioner scans his physical self in the moment" (Roy, 2021). Mindful meditation has shown that individuals

experience positive emotions and demonstrate a greater awareness (Hepburn et al., 2021a). This has been shown by studying the oxytocin levels in saliva. "Mindfulness-based meditation has been linked to increased salivary oxytocin levels in psychology university students (N = 68). As evidenced by Fredrickson, positive emotions can provide an antidote to the physiological changes that occur as a result of the arousal caused by negative emotions" (Hepburn et al., 2021a, p 4).

Mindful meditation has been shown that it can help individuals physically and psychologically. Research by Hepburn et al. (2021a) found that:

> Positive emotions support the development of an individual's social, cognitive, physical and psychological resources. Mindfulness-based approaches are increasing as complementary therapies for mental health concerns, for example, mindfulness-based cognitive behavioral therapy. Similarly, mindfulness and attending to the present moment are recommended to improve physical wellbeing, such as a complementary therapy for diabetes. It is suggested that mindfulness increases awareness of lifestyle factors and behaviours. It has also been suggested that mindfulness training can increase interoception and proprioception (awareness of the body) measured by heartbeat perception accuracy (HBPa) which may support physical wellbeing. (p. 4)

Mindfulness Practices

Over the year's mindfulness has been defined many different ways and methods of how to practice mindfulness have varied. However, the foundation of mindfulness that discusses bringing awareness and focus in the moment has stood the test of time and is a way for us to focus in a particular way while maintaining that focus on the present and

being nonjudgmental (Hepburn et al., 2021a). Individuals cannot just say they practice mindfulness at all times, instead mindfulness has to be practiced intentionally and "…being 'intentionally situated' means to be situated in the lived body, or the state of consciousness that is achieved during such practices as body scanning, meditation, and yoga and that ideally continues to assert itself in the course of life" (Nilsson & Kazemi, 2016, p. 190). Research has shown that components of mindfulness can help to improve self-regulation. Cao et al. (2022) stated:

> It shows that four components of mindfulness (awareness, attention, present focus, and acceptance) could instigate four broad subsequent mental processes, including reduction in automatic inference processing, enhancement of cognitive control, facilitation of metacognitive insight, and prevention of thought suppression and distortion, leading to the improvement of self-regulation. (p. 2)

Individuals may prefer to practice mindfulness in a certain way that they feel is beneficial to them.

Breathing

One way that individuals practice mindfulness is through breathing. "Mindfulness of breathing, for example, is about the present breath and not a breath experienced long ago" (Anālayo, 2019, p. 12). Mindfulness breathing involves deep breathing. "Deep breathing, which is also known as diaphragmatic breathing, is a technique that is based on the notion that mind and body integration produces relaxation" (Toussaint et al., 2021, p. 2). Research has shown that individuals who participate in this practice have benefits to their physical health. "The technique requires participants to contract the diaphragm, slowly inhaling and exhaling. Deep breathing appears to amplify blood oxygen levels,

massages the inner organs located in or close to the abdomen, and possibly stimulates the vagus nerve" (Toussaint et al., 2021, p. 2). Along with physical health benefits this practice has been shown to have a positive impact on an individual's mental health. Individuals who have practiced breathing have shown less stress and less anxiety. (Toussaint et al., 2021).

Awareness of the Body/Mindful Movement

Deep breathing is only one technique that can be used to practice mindfulness. While practicing mindfulness an individual must also be aware of their body. In addition to using deep breathing, movement can also be used to practice mindfulness. Body awareness becomes part mindfulness meditation and includes yoga. "Fortunately, the mindfulness-based stress reduction program (MBSR), which has recently attracted much scholarly attention, includes hatha yoga, which provides a standardized form of the otherwise diverse collection of different yoga protocols" (Tihanyi et al., 2016, p. 113). Yoga has been around for many years and can be traced back to India, but has evolved over time (Birdee et al., 2009). Mindfulness can help to improve body awareness (Mohammed et al., 2018).

Guided Imagery

In addition to deep breathing and self-awareness of the body individuals also use guided imagery to practice mindfulness. Jallo et al. (2015) provides us with what guided imagery mindfulness is in practice:

> Guided imagery (GI), is a dynamic, psychophysiological modality in which a person imagines and experiences an internal reality in the absence of external stimuli. The incredible power of the mind creates mental images that connect an

> associated emotion to the body which leads to changes in feeling and physiologic states. GI is an intervention that has been used for the self-management of stress and the resultant stress responses. (p. 250)

Individuals practicing guided imagery have been shown to have less stress, fewer negative emotions, relief of headaches and muscle aches, while using guided imagery (Jallo et al., 2015).

Sensory Experiences / Mindful Communication

Deep breathing, guided imagery, and body awareness all use our senses and have us focus deeply on the present without judgment. When practicing mindfulness, we have to be mindful of what a sensory experience means. “Sensory refers to the transmission of information through the nervous system and brain in response to an external trigger, and the individual’s simultaneous perception of this feedback with the senses” (del Campo & Kehle, 2016, p. 99). During these sensory experiences, individual focus on that trigger can then have an impact on the effect of that trigger (del Campo & Kehle, 2016).

One way to practice mindfulness using a sensory experience is through music. “Scientific research has not revealed why music, which is universal throughout all cultures with few exceptions, can cause both positive and negative emotional responses” (del Campo & Kehle, 2016, p. 1010). During this mindfulness practice, individuals can pay attention to their emotions and what impact the music has on them and their emotions.

Mindfulness Meditation

Meditation can be used to practice mindfulness and has been demonstrated to increase positive emotions (Hepburn et al., 2021b). “Mindfulness meditation practice was

proposed to be a process toward enhanced self-regulation, consisting of the interplay of attention regulation, body awareness, emotion regulation" (Tihanyi et al., 2016, p. 115). During a mindful meditation individuals explore their current feelings, thoughts, and have an awareness of their bodily sensations (Cao et al., 2022). Meditation is something that takes focus and practice as Rosenbaum and Bohart (2021) state:

> More fundamentally, the very act of meditation is not purely a matter of individual talent or effort. If you approach meditation this way, you'll strain and get frustrated. Meditation requires us to let go, open up, become receptive to mindfulness, and become a vessel for mindfulness—not its master. (p.127)

When meditation is practiced and used with fidelity it can improve attention, self-control, along with relaxation and the ability to pay attention (Liu et al., 2021).

Mindfulness in Education

Mindfulness in education is a practice that is becoming common. Over time many researchers have researched mindfulness training and the positive way it can impact employee physical and mental health in the workplace and education is now looking at those impacts and how they can be incorporated into the education field (Kay & Young, 2022). One reason this is occurring is that teachers have experienced many changes over the past few years and leaders are seeking ways to support their staff. "In a meta-analysis, Longueil and Renshaw mentioned that mindfulness-based interventions with teachers are promising for increasing their mindfulness and psychological well-being and for decreasing psychological distress" (Janssen et al., 2020, p. 3).

Practices in Education

As more research is conducted and leaders seek to find how to support staff using mindfulness techniques, they are looking at how mindfulness would impact the field of education. Mindfulness practices are becoming a regular practice in education and are being used as interventions with both staff and students as interventions. Janssen et al. (2020) discovered:

> Mental health interventions in the educational sector are mostly secondary preventive and targeted at the individual level, with the goal of enhancing the ability of teachers to cope with stressors in the workplace. Examples are workshops on stress management skills and mindfulness-based stress reduction (MBSR) programmes. MBSR has been shown to be partly effective in influencing mental health outcomes. (p. 3)

Educators are also exploring new ways to provide and practice mindfulness into their daily routines. The ways to practice mindfulness are widening and now there are ways to practice mindfulness with technology: "…management educators have a promising new technology at their disposal to help their students rise to the challenge: online mindfulness training" (Kay & Young, 2022, p. 262). More research is needed to show the specific impact of mindfulness in the field of education and on the use of online mindfulness that is available to educators.

State of Education Today

Educators have been forced to rethink education over the past few years. COVID-19 caused educators to think outside of the box and reflect on how to provide education to students while not in a traditional classroom. In person instruction had to shift to all

virtual instruction, and now educators are trying to find ways to address student needs while trying to make up for any learning loss that occurred. The government is trying to hold schools accountable for student achievement, and more duties have been added to teachers' daily workload. All of these factors have led to increased stress in education.

Accountability for schools began in the 1980s. "From the initial rise of the modern U.S. school accountability movement during the 1980s, SEAs were accustomed to playing the passive role of compliance monitor for their LEAs and schools" (VanGronigen et al., 2022, p. 3). This led to districts putting accountability measures in place locally and as Tye and O'Brien (2002) found:

> By the fall of 2000, it had been about a year since we'd started noticing that our master's degree students— conscientious elementary and secondary school teachers — were complaining with increasing bitterness about a changing work environment in the public schools. 'The love I had for my work is gone,' we were hearing them say. 'I never used to feel this way, but now it's hard to drag myself to school each day.' (p. 24)

Teachers began to feel like they were told what to do and there was a lack of trust in their ability to teach and make decisions after being given the standards and the state assessments (Tye & O'Brien, 2002).

At that point there was a changing school environment and then in 2002 No Child Left Behind was passed in legislation. States had to take a look and evaluate how to improve schools that were underperforming immediately. However, states at that point were not equipped to be able to do this as quickly as they had to in order to meet the NCLB guidelines. They were lacking the resources, so local districts had to find a way to

try to make improvements themselves. There were some schools that did try to make these improvements, but in the end not many showed improved results (VanGronigen et al., 2002). Therefore, in 2015 Every Student Succeeds Act was reauthorized. Every Student Succeeds act allowed the states and local levels to use multiple points of data and provided multiple ways to measure schools (Edmonds-Behrend et al., 2020).

However, with this reauthorization the teachers still felt that high stakes testing was a priority over their judgment on what the students needed. Tye and O'Brien (2002) stated:

> State standards and high-stakes tests dictate the curriculum—what is to be taught— regardless of what any given group of youngsters may actually need to learn and despite the professional judgment of the teacher. When so much of what goes on in our schools is mandated from afar (and often by noneducators, who know as much about the teaching/learning process as educators do about DNA supercoiling), there is a real risk that the nation's teaching force will be de-skilled, reduced to technicians who need only carry out the plans that others have made. (p. 27)

Along with the increased focus on high stakes testing teachers in districts experienced larger class sizes and longer work hours (Tye & O'Brien, 2002). Not only were there larger class sizes and longer hours, but teachers were also working in poor physical environments, paid low wages, and received poor benefits (Kwon et al., 2022). Along with all these factors COVID then came along and created unpredicted changes in the way teachers had to provide instruction to their students and changed everything about education. Coming out of the pandemic, teachers left the profession and schools

are now facing difficulties filling positions with qualified candidates. There was already difficulty for some schools to fill positions in certain fields, but now it is increasingly more difficult. "Increasingly more schools are not being able to hire adequate candidates, especially for the subjects of math, French and technical subjects, and teacher shortages are mainly concentrated in inner cities" (Amitai & Van Houtte, 2021, p. 2).

During the pandemic, most schools experienced a period of closure when learning had to occur online for all students. The use of technology can be beneficial in education, but "The use of online teaching methods has been specifically linked to teacher stress with negative impacts on teaching effectiveness identified" (Christian et al., 2020 as cited in Minihan et al., 2002, p. 3). Therefore, teachers are showing more signs of stress than before.

Between accountability measures, COVID-19 complications, long days, and low pay, further research on the causes of stress and how to provide supports to teachers to handle their stress would be beneficial. Students' success is impacted by the teacher and the teacher's stress level. The reasons why teachers are leaving the profession must be examined in order to ensure that there are enough teachers in the profession to provide an education of the highest quality to our youth (Reiser et al., 2016).

Teachers leaving the profession/retiring early

The number of teachers entering the field has decreased along with the large numbers of teachers leaving the profession not just for retirement purposes (Amitai & Van Houtte, 2022). A close look needs to be taken to see if there is a relationship between stress and the number of teachers leaving the profession or the lack of teachers entering the field of education along with the impact of mindfulness on stress. This will

help determine if mindfulness can help reduce stress and be used to support teachers to stay in the profession.

Work Load

Over the years, teachers have been expected to do more. “For years, intensifying demands in the classroom and job market have generated increasing levels of student stress and burnout” (Kay & Young, 2022, p. 261).

The increased workload has been felt by many teachers. There is a shortage of substitutes and therefore when another teacher is out other teachers in the building are then assigned to cover additional classes (Janssen et al., 2020). When a teacher has to cover additional classes, they do not get any time to prepare for the next day and in turn must put in extra time outside the workday in order to be prepared for the following day. “The boundary between private and professional lives blurs when novices work this many hours. One teacher suggested that for novices, a full-time position should consist of less than 22 hours in order to lessen the pressure on beginners” (Amitai & Van Houtte, 2022, p. 7). Teachers are not planning for one class or one group of students but instead are planning for multiple classes and many students each day. Amitai and Van Houtte (2022) found that:

> Due to a lack of incentive to share courses between teachers, novices often feel they are required to create all of their own content, greatly increasing the preparation time of their lessons and their workload, pushing novice teachers over the edge and triggering exhaustion and burnout in some respondents. (p. 7)

This also applies to veteran teachers who need to constantly revise their lessons in order to meet their current students’ needs. Janssen et al. (2020) stated that:

> This imbalance between job demands and resources and its associated risk of negative effects on one's well-being may be an important reason that many novice teachers leave the educational sector within the first 5 years of their career and that many experienced teachers retire early. In fact, 45–70 percent of early retirements in the educational sector can be attributed to psychosomatic and psychological problems. (p. 2)

Accountability

The federal government and the state both have accountability measures in place for school districts and in turn districts have accountability systems in place for the teachers. Jerrim et al. (2021) discovered:

> As a job, teaching requires staff to work long hours, keep up with changing government requirements and manage often disruptive classrooms. This, of course, all occurs under the watchful eye of the accountability system, with schools (and teachers) judged by how young people perform in high-stakes national examinations. (p. 692)

Teachers feel the pressure of students having to perform well on the tests or being evaluated poorly based on the performance. As research by Tye and O'Brien (2002) found that:

> Those respondents who had already left teaching ranked the pressures of increased accountability (high stakes testing, test preparation, and standards) as their number-one reason for leaving, followed closely by increased paperwork, changing student characteristics, negativity and pressure from parents and the community, and tension between teachers and administration. (p. 27)

Accountability is important in any field, but the way accountability is implemented can make a difference. Teachers have reported the current accountability model as a reason for leaving the profession (Jerri et al., 2022).

Lack of Support

Everyone needs to feel supported in their workplace. Räsänen et al. (2020) states, "Lack of professional commitment and factors related to the school system and workload were the main reasons for teacher turnover intention" (p. 837). Tye and O'Brien's (2002) study discovered:

> In order to feel supported we need to feel like we are trusted to make decisions. The lack of trust in the professionalism of teachers and anxiety about national educational standards have led to a policing mentality among administrators. . .. The introduction of many more reporting and documenting requirements, as well as the standardization of many aspects of teaching, contributes both to the much noted increase in overall work load and to the erosion of pleasures of the job. . . [such as] flexibility, challenge, creativity, working with and for people. (p.30)

Teachers 'workloads are increasing, and they feel not only a lack of trust, but a lack of support from the public, colleagues, and administration (Räsänen et al., 2020; Amitai & Van Houtte, 2022). "A good many respondents pointed out that, while lack of parent support is a problem, many parents actually take an adversarial position, making life very difficult and unpleasant for teachers" (Tye & O'Brien, 2002, p. 29).

Student Behavior

Too often the lack of parent support becomes obvious when teachers call home about student behavior. The lack of student respect and students 'behavior is another

reason that teachers cite for leaving the profession (Tye & O'Brien, 2002). Amitai and Van Houtte (2022) state:

> Former novice teachers who had to contend with a high workload often indicated they also struggled in their interaction with students in specific classes, mainly regarding class management, making it 'emotionally too hard to cope'. Novice teachers stressed that they sometimes struggled with the diversity among students in their school e in several regards, such as futility feelings among the students, a low socioeconomic status and the role of ethnicity, all of which resulted in increased class management issues. (p.76)

The difficulty handling classroom management has led to teachers leaving the profession. "In our study, people who left teaching after five or more years in the classroom ranked changes in student behavior and attitudes a close third after the pressures of standards and high-stakes testing and mountains of paperwork" (Tye & O'Brien, 2002, p. 29).

Wages and Benefits

Teachers who left the profession indicate that wages and benefits were the last reason for leaving. They indicated that the accountability due to high stakes testing and the work environment itself were more crucial in making their decision to leave the profession (Tye & O'Brien, 2002). However, wages and benefits are still a factor since this varies from state to state and district to district. (Tye & O'Brien, 2002).

Burnout and Stress

All of these pressures create the kind of stress that can impact teachers' physical and mental wellbeing (Jerrim et al., 2021). The teaching profession is one of those

professions with the highest levels of work-related stress (Kyriacu, 2015). “The complex classroom environment and the high density of interactions as well as discipline problems, unmotivated students, and classroom disruptions are cited as potential acute stressors” (Janssen et al., 2020, p. 2). The stress that is encountered during work can cause teachers to have a high rate of absenteeism or even retire early (Janssen et al., 2020). Teachers who encounter these challenges may choose to leave the profession for different reasons including lack of respect, job satisfaction, the workload, lack of trust, salary, benefits, student behavior, and working conditions (Jerrim et al., 2021). It is not only important to look at the reasons teachers leave, but also how we can retain teachers in the field of education and how teachers leaving the profession have an impact on students.

Teacher Retention

The difficulty of filling positions with qualified candidates combined with teachers leaving the profession is not something new. This problem goes back many years. Back in 2012 research showed that teacher satisfaction had fallen, and many teachers were leaving the field after their first year (Reiser et al., 2016).

Teacher turnover could have a negative impact on students and the workplace environment (Reiser et al., 2016). In order to retain teachers, we have to think about the level of support teachers are given when first entering the profession. Tye and O’Brien (2002) stated:

> First, *human capital theory* holds that a person will make decisions to leave a job or career based on how much he or she has invested in it— in effect, weighing the benefits and costs involved in making a change. According to this theory, the

> more complex the initial training and the longer one has held a position, the less likely one is to see leaving it as a plausible option. (p. 25)

Teacher Training

Investing time in providing a teacher with the training they need in order to be successful is a must. Districts need to look at individuals and provide training that is personalized to that teacher but also find ways to listen to the new teachers and hear their ideas. New teachers can bring excitement and a positive impact to the environment. Janssen et al. (2020) states, "Balancing the top-down-bottom-up dialog is also needed to promote meaningful and ambitious enough professional learning for autonomous teachers and contribute to the further development of the educational system" (p. 854). New teachers not only have to have their need for professional development met, but we also need to tap into their areas of expertise and give them a voice. This can be tricky to do with all the requirements for the state and requires finding a balance.

> It is a complex issue, involving factors such as teachers' dispositions, their preparation for teaching in rural and remote locations through their initial teacher education programs, their induction to beginning teaching and the level and type of support provided to beginning teachers within their initial postings. (Kelly, 2015, p. 1).

This emphasizes the importance of looking at each teacher individually and finding their needs.

Environment and Relationships

The climate and culture of a building can have an impact on teacher's thoughts on the job itself. Tye and O'Brien (2002) gives ideas about ways to improve the work

environment for teachers that included making sure that buildings are in good repair and upgraded, allowing teachers to have a voice when making decisions, reducing class sizes, obtaining community and parent support, and helping teachers build relationships with each other.

Relationships can be a major factor in determining how the teacher perceives the work environment. Schools can help retain teachers by assigning new teachers a mentor who can develop a relationship that will be long lasting. Low et al. (2022) points out that, "Having positive social interactions with colleagues, especially with the more experienced teachers, also helped Career Stage 1 teachers remain professionally committed" (p. 8). This not only can lead to new teachers feeling supported and remaining the profession, but it is also beneficial to the veteran teachers. "As teacher's progress in their career, they take on a more nurturing role to younger colleagues and are, in turn, energized by them" (Low et al., 2022, p. 8).

Not only can relationships with colleagues make a difference, but educators go into teaching because they want to make a difference and teach students. "Across all career stages, teachers made the point that having a positive relationship with their students kept them committed. Teachers who teach vulnerable or students who 'need them more 'also felt more committed" (Low et al., 2022, p. 8). Teachers keep students in the forefront of all their decisions, and it is no surprise that Amitai and Van Houtte (2022) found:

> Former teachers univocally reported that their main source of job satisfaction was their interaction with students, feeling trusted by them and engaging them to learn, 'as you are raising a whole generation, which is something you can rarely

> do in other jobs'. Some teachers even described their students and colleagues as almost becoming 'a part of their family', creating a high sense of relatedness. (p. 5)

Administration

Leaders can determine the success or failure of an organization. It is no surprise that teachers who are listened to, trusted, respected, supported, and motivated by school leaders were more committed to the profession (Low et al., 2022). On the other hand, "If administration fails to provide a supportive work environment and meaningful professional development opportunities, then teachers will continue to experience disempowerment and, ultimately, choose to leave the field" (Hester et al., 2020, p. 362).

Impact

Teachers leaving the profession early paired with the lack of individuals going into the teaching profession can have consequences. When teacher turnover is high then that can negatively impact the climate and culture of the school environment which in turn then has an impact on student engagement and achievement (Räsänen et al., 2020).

If there is a large amount of turnover then the organization itself can be disturbed and community trust can be lost (Amitai & Van Houtte, 2022). It is important that everyone be aware of the current state of education and look at how the education system can be supported. This begins with listening to the teachers and researching the most effective ways to retain teachers in the field of education.

Stress

It is important that employers provide supports to employees to help manage stress in a healthy way otherwise it can be detrimental to their mental and physical health resulting in burnout and a lower level of performance (Janssen et al., 2020).

Definition of Stress

da Costa Brasi et al. (2021) defines stress as, "Any intrinsic or extrinsic stimulus that evokes a biological answer is known as stress" (p. 2). In education stress is referred to as teacher stress and Jain (2021) defines this as, "… the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher" (p. 19). The inability to cope with work demands can lead to burnout. Jain (2021) explains when burnout happens, "…occurs when teachers undergo stress for prolonged periods of time and begin to experience feelings of emotional exhaustion, depersonalization, and a loss of personal accomplishment" (Jain, 2021, p. 19). Research has studied the psychological and physical impacts of stress and employers need to understand how stress can impact employees.

Psychological Stress

"Psychological stress arises when a situation is interpreted to be threatening and, at the same time, resources are judged to be insufficient to cope with the situation" (Lazarus & Folkman, 1984, as cited in Becker et al., 2022, p. 2). Research has shown that when this occurs individuals can experience negative effect such as nervousness or anxiety (Becker et al., 2022).

Psychological stress can causes burn out. "Maslach and Jackson described a range of physical and psychological symptoms of burnout in an individual, including loss of

self- esteem, depression, alcohol abuse, and exhaustion" (Maslach et al., 2001, as cited in Minihan et al., 2022, p. 3). Research has shown that mindfulness can help with the negative impacts of these symptoms.

> In more detail, body-mind psychotherapists agree that body awareness (1) facilitates the inner dialogues which govern behaviour based on need states, (2) strengthens the self-regulation in stress response, (3) helps know and respect more the self-borders and thus enables the interpersonal communication to be more effective, (4) directs the attention on 'what is' instead of 'what should be', which strengthens the skill of acceptance, (5) enhances the sense of self and self-confidence. (Fogel, 2009, as cited in Tihanyi et al., 2016, p. 114)

Physiological Stress

Stress impacts employees psychologically and also physiologically. Becker states that, "It could be shown repeatedly that stress affects the mental and physical health of teachers and has a negative impact on the quality of their teaching and consequently on the performance and motivation of their students" (Klussman et al., 2020. "This impact might be related to the influence of the physiological stress response on cognitive functions" (Becker et al., 2022, p. 1). Many different factors can cause stress, and then the body responds differently in different people and in various ways (Becker et al., 2022).

Stressors

Individuals handle stress in different ways and stressors can impact individuals differently. It is not only the frequency of stress that is important but also the types of stress that each individual experiences. Koffer et al. (2016) states:

> However, stressor exposure on its own provides an incomplete picture of individuals' stressor experiences. Additionally, useful information may be provided by stressor diversity—the dispersion of "hassles" across multiple domains. High stressor diversity involves, for instance, exposure to many types of stressors (e.g., health stressors, financial stressors, home chore overloads, work stressors, and interpersonal tensions), while low stressor diversity involves exposure to only a few types of stressors (e.g., only work stressors and arguments). (p. 301)

These stressors have changed over time. As society changes so does the stressors that we experience. A close look needs to be taken to evaluate each stressor and the amount of stress each individual experiences in relation to that stressor. One new stressor in society over time has been the introduction of technology. Almeida et al. (2020) states:

> In the 1990s, people were not fully interconnected by the web, smart phones were nonexistent, and the U.S. economy was expanding. Since then, the world has witnessed a global recession, political upheaval, and the rise of a technologically more advanced, and arguably faster paced, world. We examined how stress in the daily lives of Americans may have changed across this time period, comparing the daily lives of adults in the 1990s to similarly aged adults in the 2010s. Generally, adults in the 2010s reported experiencing a greater number of daily stressors, and—as a group—they reported these stressors as being more severe and posing a greater risk to their finances and to their future compared to the reports of same-aged adults in the 1990s. They also reported higher levels of daily distress than did their same aged peers in the 1990s. (p. 519)

The future is unpredictable and as everything changes the stressors will also change, which is why research is needed to help indicate what supports are the most successful in helping individuals handle stress in a healthy way.

Social Media

> One of the newest stressors is social media.
>
> What started out, theoretically, as a novel way to 'connect' people on a wide scale has now been implicated in social anxiety disorder, which is the third leading psychological disorder in the United States, as well as in other forms of stress. (Nahai, 2018, p. 689)

Research has shown that when individuals view individuals' successes on social media it can cause feelings of loneliness and unhappiness (Nahai, 2018). In addition,

> Most digital natives have grown up with new technologies such as the Internet, smartphones, laptops and social media. They value personal growth, family and friends, and love challenges, but their sense of reality is poor, so they are prone to emotional distress. (Lin et al., 2022, p. 1).

Stressors in Education

Research on stress in the education field has been done over time. Califf and Brooks (2020) indicates that stressors found have been "…maintaining discipline, time pressure, workload, and teaching unmotivated students, among others" (p. 2). Okoh et al. (2022) states, "Stress is every mental and physical condition that has an impression on a personality's productivity, effectiveness, personal health, and quality of labor. One profession that is most likely to be disagreeable is that the teaching profession" (p. 510).

Stress is prevalent in education and in order to provide a healthy work environment for staff and a healthy environment for students we have to identify those stressors.

Technology

Research has indicated that one stress in education is technology. “Recent studies on teacher stress have also determined that using technology can be a major stressor, and that K-12 teachers are indeed susceptible to experiencing technostress related to using technology” (Califf & Brooks, 2020, p. 2). Technology can be a beneficial tool for teachers to use to provide instruction and when COVID closed schools around the country the teachers had to use technology in order to provide instruction to students virtually. However, “The initial research on technology as a component of teacher stress has identified a few specific techno-stressors, such as unreliable technology, usability issues, and not having enough time to integrate technology into their curriculum” (Syv¨anen et al., 2016; Çoklar et al., 2016, as citied in Califf & Brooks, 2020, p. 2). Schools need to be mindful of the fact that technology can cause stress on the teachers. However, realistically technology is something that must be present in today’s schools in order to ensure that we are educating students for an unpredictable future. Califf and Brooks (2020) reminds us that there are positives, but we must also be aware of the negative impacts. Technology is used in all schools and can be used to positively impact student learning and engagements, but there are some concerns that technology can also cause a form of stress called technostress. “Conceptually, technostress is an overarching process that includes technology-related stressors (i.e., techno-stressors), psychological strain, and workplace outcomes, such as organizational commitment and turnover

intention" (Califf & Brooks, 2020, p. 1). All parties using technology needs to be aware of this and find ways to offset that additional stress.

Environment

Teachers can be impacted by many things in their lives that can cause them stress. They experience stress from both personal and work lives. The environments that they are in can be causes of stress for teachers.

> A number of specific demands are consistently linked to teacher stress, including classroom management and student discipline, larger class sizes and poor administrative climate. However, it is the teacher's perception of an imbalance between such demands and their resources that contributes to vulnerability to stress, job dissatisfaction, emotional exhaustion, and burnout. (Feng, 2010; Loeb et al., 2005, as cited in Reiser et al., 2016, p. 119)

How a teacher views the job demands determines if they view it as stressful or not and to which degree. Huang et al. (2022) found that having large class sizes can be more stressful to preservice teachers because of their lack of experiences on the job.

Over the past few years many teachers are showing more signs of stress. Robinson et al. (2022) found that:

> At the individual level, teachers frequently cited the heightened demands they faced while teaching during a pandemic. Increased workload associated with preparing for and facilitating online learning as well as supporting students with social-emotional concerns or issues associated with the pandemic caused the lines between home and work to become blurred. (p. 9)

The pandemic caused an increase of stress in the workplace for teachers who were already feeling stressed. Teachers must be prepared to provide instruction, and Okoh et al. (2022) discovered that many teachers have late nights and lack sleep because they are planning for class. Janssen (2020) found that,

> More than 30 percent of teachers have reported that major changes in the work context are an important cause of work-related stress. Teachers are expected to meet higher job demands (e.g., high workload, emotional strain) with fewer job resources, especially less professional autonomy. (p. 2)

These changes have caused a higher level of stress in the workplace which can lead to teachers leaving the profession. MacIntyre et al. stated, "It is reported that up to 40 percent of teachers leave the profession within their first five years" (p. 26).

Support

Teachers' jobs include many duties. Teachers are not only responsible for planning lessons, providing that instruction to students, being able to motivate and engage the students in the learning process while successfully managing classroom behaviors, but also with many other administrative tasks (Okoh et al., 2022). With everything required of teachers at work they at time can have difficulty balancing personal and work lives (Jain, 2021). Research has shown that an additional stressor to trying to keep their lives in balance is the lack of support. Jin et al. (2020) states:

> Teachers experience role stress and are consequently unsure of their superiors' expectations and how they will judge the outcomes of their decisions. Teachers will 'hesitate to make decisions and will have to rely on a trial and error approach.' Teachers with ambiguous roles would waste more time in struggling to

> define and understand their own roles, which is bad for decision-making and problem-solving, resulting in increasing job burnout. (p. 2)

The chance of teacher burn out can lead to high teacher turnover.

Strategies to Cope with Stress

Pogere et al. (2019) defines coping, "as the person's efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources" (Pogere et al., 2019, p. 270). Teachers need to be supported by all stakeholders in order to remain satisfied with their jobs and remain in the education profession (Richards et al., 2016). Teachers must find a way to cope with job demands. In order to do this, teachers need to be able to identify their stressors and be aware of their response to those stressors. Once they are able to identify those, they can then use strategies in order to cope with that stress. Research found that beginning teachers used different strategies to handle the stress. "In order to cope with these challenges, the beginning teachers used various strategies including collaboration, conformity, influencing and autonomy" (Jain, 2021, p. 20).

Jain (2021) states:

> A range of positive coping strategies were used such as taking the mind off work matters, developing hobbies and interests outside school, seeking social support, organising and prioritising work, using cognitive reframing strategies and relying on experience with teaching to manage the workload and stress. (p. 24)

Liu et al. (2022) also found that:

> Humans are often more sensitive to negative things than to positive ones; for example, people are more sensitive to danger, referred to in psychology as

> negativity bias, which makes people feel stressed and leads to anxiety and even depression. The principle behind mindfulness stress reduction is to help people get rid of negativity bias by awareness and non-judgment. Therefore, when we enter a state of mindfulness, where we accept all our thoughts and feelings without judgment, and can harness our attention to the present moment, our stress and anxiety caused by negative bias will be reduced. (p. 4)

Teachers who practice mindfulness can experience a reduction in stress but providing supports that teachers have indicated in previous research is also important. Tuettemann and Punch (1992) found that:

> From teachers' responses to individual items making up their perceptions of 'having some influence on what happened in the school', it appears that the following characteristics among school administrators are effective in reducing teacher vulnerability to stress: a school administration willing to put into practice ideas suggested by teachers, a principal who is open to criticisms to the administration policy and practices in the schools, who is willing to accept ideas which disagree with his/her own, ready to consult with teachers, willing to make use of teachers' specific talents and interests, good at keeping teachers informed of school events, and whose rules can be questioned by staff. (p. 188)

In order to provide students with the best education possible, it is important to provide teachers with coping strategies. “The high rates of depressive symptomology we found as well as and the important role that teacher well-being plays in classroom quality and child outcomes, call for effective interventions that will improve teacher well-being including

mental health outcomes" (Linnan et al., 2017; Whitaker et al. 2013, as cited in Kwon et al., 2022, pp. 164-165).

The strategies provided to help with teachers can differ for each teacher. Some may find one strategy more beneficial than another. One of the strategies that can help reduces stress is to encourage teachers to participate in their own hobbies. Jenkins et al. (2019) states, "Being able to pursue hobbies was associated with reduced stress and a better work-life balance" (p. 353). Ensuring that each teacher is provided strategies to cope with stress can help the teachers remain in education.

Chill Rooms

The Allegheny Health Network has partnered with schools in the area to provide Chill Rooms.

> Chill Rooms are designed as quiet, calming spaces, and each is staffed five days a week by a pair of AHN professionals, a behavioral health school educator and behavioral health therapist, the latter in place on behalf of students who require intensive and individualized social, emotional and behavioral support. (Funk, 2022, para. 4)

This space and support for students can also help reduce teacher stress since the students are finding support, they need then when in the classroom the students are able to concentrate on learning.

Impact of Stress

Teachers experience stress in different ways and react differently to different stressors. Okoh et al. (2022) found:

> The stress teachers complain about involves inferences on student's interactions, teaching ability, life after work, networking socially among others. Poor job performance is seen as some teachers hardly plan and prepare their lesson notes, and when some do, they are poorly done. Others rarely give assignments, and even when they do, they are not often marked and corrected. So many times, schemes of work set out for each class in each term are not completed diligently by some teachers. Some teachers are not always punctual at lessons while some others are not there when it is their teaching period, absenteeism from work due to health challenges, and some others are found transferring aggression on students; all these could likely be the aftermath of stress on the teachers. (p. 510)

Stress can impact teachers differently in different situations research has indicated that it shows in two ways. "Stress is known to manifest in two ways; first, it can alter an individual's behaviour and decisions surrounding their health (for example, diet and lifestyle choices) and second, stress can trigger alterations in physiological systems thus increasing the risk of disease" (Hepburn et al., 2021a, p. 4).

Physical Health

Stress can manifest physically in individuals. Banerjee and Mehta (2016) states, "Physical stress can be brought on by such things as work overload, deficient amount of rest and a poor diet" (p. 9). Physical stress has been shown to cause physical symptoms such as increased heart rate (da Costa Brasi et al., 2021) along with pain in the back, knees, and neck (Kwon et al., 2022). In addition to these symptoms many teachers also have reported to have headaches (Kwon et al., 2022).

Mental Health

Stress can have a negative effect on physical health, but it can also impact individuals negatively in regard to their mental health. “Mental stress can be traced to a person’s mental state of mind involving everyday emotions like hopes, worries and regrets” (Bannerjee & Mehta, 2016, p. 9). Hepburn et al. (2021a) explained:

> Physiological stressors are considered stressors that ‘start out in the body’ and psychological stressors ‘start out as ideas, fears, and sources of anxiety and that only later become part of the workings of the body’. The physiological changes undertaken to ensure an organism’s survival involve powerful neuroendocrinal changes within the body and equally powerful emotional changes. The emotions most commonly associated with the stress response are anxiety as anticipation or apprehension in the absence of a threat, anger as an outwardly focused, reactive impulse and fear generated in the presence of the threat. Chronic stress and trauma can trigger anxiety symptoms and play a role in the development of anxiety-related conditions such as general anxiety disorder, panic disorder, and acute stress disorders, which impact sleep patterns, functioning and productivity at work, relationships, and create feelings of fear, panic and pessimistic thoughts. (p. 4)

Stress can take a toll on a teacher’s physical and mental health and this is something that we need to be aware of in order to provide the appropriate supports.

Summary

This literature review has given research on mindfulness, stress, and the state of education. Educators are leaving the profession and this along with the lack of individuals

entering the teaching profession have made it critical for leaders to find ways to help support the teachers and reduce teacher stress. One way to do this is the use of mindfulness activities. If there is no intervention then the stress can cause anxiety and have negative impact on the teacher's instruction (Hepburn et al., 2021b). Kwon et al. (2022) states, "Targeted support and resources are needed to promote the recruitment and retention of a more educated and skilled ECE workforce and protect the health of such a workforce" (pp. 165-166). Research has shown that mindfulness can help individuals cope with stress. Hepburn et al. (2021a) found that, "University students reporting high levels of mindfulness reported lower levels of depression, fatigue, tension and confusion" (p. 1) while Wang et al. (2022) found that "Preschool teachers with a high level of mindfulness could perceive, understand, use, and manage their emotions better, and tended to use positive coping strategies when faced with challenges, resulting in less burnout" (p. 10).

When supports are given to teachers to help ensure that they are healthy mentally and physically, then they can educate students effectively and if they do not have supports and are stressed then that can negatively impact the overall organization and students' performance (Reiser et al., 2016).

CHAPTER III

Methodology

The literature review focused on stress, the state of education, and how mindfulness can impact teacher perceived stress. This action research will help to determine the perceived causes of the teacher perceived stress, if teacher demographics impact perceived stress, the teacher perception of mindfulness in the classroom, and if mindfulness has an impact on reducing teacher perceived stress. If teacher perceived stress is reduced this could lead to a positive learning environment, and a more positive learning environment could lead to higher student achievement.

Teachers who are under high levels of stress have been shown to be less effective instructors in the classroom and have students who perform below expectations (Arens & Morin, 2016). It is common knowledge that everyone encounters stress and the stress everyone endures can be both positive and negative.

> Yerkes-Dodson law explain that a certain amount of stress produces a positive force that can increase individual productivity and help individuals to develop. After reaching the optimum point, stress tend to be destructive and tend to cause negative effect for indivudal. (Hanouch & Vitouch, 2004, as cited in Musabiq & Karimah, 2020)

For administrators it is important to remember that all the leaders in education are aware of teacher perceived stress levels and they stay within a range that doesn't become destructive. We need to ensure the negative impact of stress on the environment and the students is kept to a minimal level. Finding ways to help reduce stress and supports to be put in place for teachers in order to create an optimal learning environment for all

students and faculty should be a priority. It is important to find the most beneficial ways to help reduce teacher perceived stress in order to ensure they remain healthy and provide an optimal learning environment for students to be successful.

Another important reason to find ways to help reduce teacher perceived stress is that society is at a tipping point where teachers are leaving the profession at a fast rate with smaller populations entering the field of education. We need to find ways to help support all teachers and reduce the stress so they remain in the field of education and individuals enter the field of education. One of the ways we can help maintain and draw teachers in is to address workplace stress. Steiner and Woo (2021) state, "Taken together, these results suggest that job-related stress poses immediate and long-term threats to the teacher supply" (p. 2).

The literature review demonstrated mindfulness has been shown to be effective for other groups. It has been shown to help support individuals with mood disorders, anxiety disorders, borderline personality disorders, depression, and individuals who showed an increase in mental health needs (Moyes et. al., 2022). In patients with depression, Costa and Barnhofer (2016) found, "Altogether our findings suggest that use of mindfulness meditation in acute depression is feasible and can be reasonably helpful in reducing symptoms and maintaining early gains" (p. 9).

There has been a lot of research completed on mindfulness and its impact of different groups of individuals, but there have not been many studies completed on the impact of mindfulness on teacher perceived stress. This action research will focus on current K-12 educators in a rural Pennsylvania school district and the impact mindfulness

activities can have on their teacher perceived stress. This study will provide information that can be used for practicing teachers, but also implemented for pre-service teachers.

It is important to find ways to support individuals who are entering the field of education from the very beginning. Paquette and Rieg (2016) suggest, “Identifying the stressors and providing healthy coping strategies may assist pre-service teachers' classroom performance” (p. 1). The ability to support teachers from the very start can determine what occurs in the future. “The future workforce plays an immensely important part in driving innovation and economic growth” (Williams et al., 2018, p. 24). This study will provide insight about if mindfulness is something that should be implemented with teachers right from the beginning of their careers in order to maintain their health and longevity in education.

This chapter will explain the methodology used for this study. The purpose of this study will be explained in the first section followed by information about the setting of the research along with the information about the participants. These sections will provide information about the demographics of the education environment where the study took place. After describing the setting and the participants, details about the intervention and research plan will be described. This information will include the specific dates and interventions in which teachers participated in during the eight-week period of the intervention implementation.

After discussing the basic information about the demographics and the timeline, this chapter will then describe the methods that were used during the study and details about how the data was collected. The last section of this chapter will discuss the validity of the study along with a summary.

Purpose

The purpose of this study was to gain insight about what teachers perceived as causes of stress in the workplace and how the implementation of mindfulness activities would impact teacher perceived stress. This study also was designed to gather information about if a teacher's demographics had an impact on their perceived stress and how the teacher perceived the implementation of mindfulness activities for their classroom. The research questions that were developed based on this purpose were:

Question #1: What are the perceived causes of teacher's perceived stress?

Question #2: What is the perceived effect on how mindfulness has affected their stress level?

Question #3: Do the demographics of a teacher make a difference in their perceived stress?

Question #4: What is the teacher's perception of the impact mindfulness activities would have on their classroom?

Settings and Participants

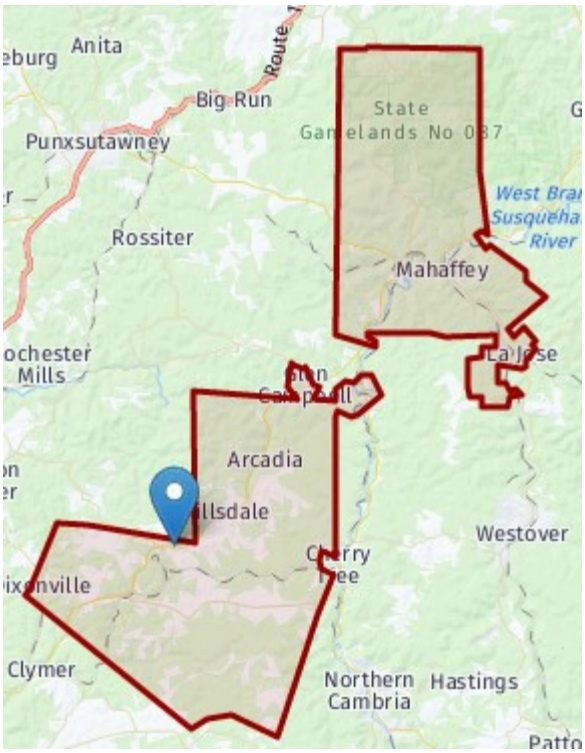
Setting

This study took place in the Purchase Line School District in rural Pennsylvania. The district has one elementary school that serves students in grades Pre-K to 6 and one junior/senior high school that serves student in grades 7 through 12. The district encompasses about 145 square miles in Indiana and Clearfield counties. The district includes the three townships of Bell, Green, and Montgomery. The district also includes the five boroughs of Burnside, Glen Campbell, Mahaffey, Newburg, and New Washington. Both schools are located along Route 286 in Commodore, Pennsylvania.

The schools are separated by a field and are .4 miles away from each other. The Purchase Line School District is split by the Harmony Area School District and the Punxsutawney Area School district as shown in Figure 1.

Figure 1

Purchase Line School District Map



Note. Purchase Line Jshs - School Boundaries Map (School Attendance Zone), by Pennsylvania Gazetteer, 2023 (https://pennsylvania.hometownlocator.com/schools/profiles,n,purchase percent 20line percent 20jshs,z,15729,t,pb,i,1099962.cfm). In the public domain.

The Purchase Line School District has a total enrollment of seven hundred and eighty students in the 2022-2023 school year as shown in Table 1. Enrollment has decreased from the 2021-2022 school year. In the 2021-2022 school year, the student population was eight hundred and ten students. In the 2022-2023 school year, there are

388 students in grades pre-kindergarten to 6 and 392 in grades 7 to 12. In the 2021-2022 school year, the special education population was 22.9 percent, and 65 percent of students were economically disadvantaged. In the 2022-2023 school year, both of those have increased: 25 percent of the student population is special education and 74.4 percent of the student population is economically disadvantaged. The district had revenues of $20,780,321 in the 2021-2022 school year and expenditures of $18,611,518 with 18.8 percent funded by local funds, 70.2 percent by state funds, and 11 percent funded by federal funds.

Table 1

Purchase Line School District Demographics

Current Student Population	*n*
Grade Level	
Pre-K to 6th grade	388
7th to 12th grade	392
Student Race	
White	796
Multi-Racial	15
Hispanic	3
Black or African America	7
American Indian/Alaskan Native	2
Gender	
Male	396
Female	384
Subgroups	
Economically Disadvantaged (74.4 percent)	508
Special Education (25 percent)	195
504 Plan (37 percent)	29
Gifted –GIEP (1.5 percent)	12

Enrollment, the graduation rate, and the attendance rate have all been declining while economically disadvantaged and special education have been on the rise. The

number of students who score advanced or proficient on state assessments has been declining, and last year the Junior/Senior high school was in the bottom 15 percent of schools in the state as measured by state exams.

During the last month of the study, the superintendent announced he would be leaving the district. The district has experienced turnover in district leadership frequently over the past few years. Each building has a principal. The Purchase Line Junior/Senior High school principal was hired at the beginning of the 2022-2023 school year. The district has a special education director, a business manager, a director of curriculum and innovation, and a maintenance director. The district has contracted services for technology and transportation.

Participants

The district employs sixty-eight teachers and all Pre-K to twelfth grade teachers from both buildings in the district were given an opportunity to participate in the study. On September 21, 2022, an email was sent with information about the study along with a Google form link that included the informed consent for participants to complete if they wanted to participate (Appendix A). On September 26, 2022, participants who completed the informed consent received a follow up email which indicated the teachers would pick their participant numbers for the study on October 10, 2022. Teachers chose numbers on October 10, 2022, and were sent a follow up email on October 17, 2022, with directions and the link to complete the Teacher Perceived Stress and Mindfulness Survey (Pre) (Appendix B) and provided with the start and end dates of the eight-week intervention. This email indicated that on Monday, October 24, 2022, each participant would be sent a Google survey with a mindfulness activity located in the directions at the

top of the survey to complete. They were to complete the activity and then complete and submit the survey (Appendix D). The email indicated to the participants that they would receive three activities and surveys a week for the next eight weeks. After the participants completed each survey, the researcher accessed the data. The researcher gathered and analyzed this data each week. Twenty-one teachers participated in the study. Forty-eight percent of the teachers who participated had more than 20 years of experiences, ten percent had 16 to 20 years, ten percent had 11 to 15 years, twenty-eight had 6 to 10 years, and four percent had 4 to 6 years of experience. Twenty participants were female, and one was male. This data is show in Table 2.

Table 2

Teacher Demographics

	percent	*n*
Years of Experience		
0-3 years	0 percent	0
4-6 years	4.8 percent	1
7-10 years	28.6 percent	6
11-15 years	9.5 percent	2
16-20 years	9.5 percent	2
More than 20 years	47.6 percent	10
Gender		
Male	4.8 percent	1
Female	95.2 percent	20
Grades Taught		
Pre-K-6	66.6 percent	14
7-12	28.6 percent	6
Pre-K-12	4.8 percent	1

In this study one teacher works at both buildings in the district, fourteen teachers work at the elementary building and six teachers work at the junior/senior high school. Three of these teachers are special area teachers, including music and technology. Three

of the teachers are special education teachers. Three of the teachers are considered specialists. Specialists included reading specialists and guidance. Twelve of the teachers are classroom teachers.

On October 24, 2022, participants received the first mindfulness activity and survey to complete. Beginning that week participants received three activities and surveys a week with the last activity and survey being sent on December 16, 2022. Participants entered their participant number each time they submitted a survey. Surveys submitted could not be identified by name or email. There was an email sent on December 16, 2022, informing the participants that the study was ending with a link to compete the Teacher Perceived Stress and Mindfulness Survey (Post) (Appendix C). The data was gathered from both the survey conducted at the beginning of the study and the survey conducted at the end of the interventions along with the twenty-four daily surveys. All the data was analyzed by the researcher.

Intervention and Research Plan

The literature review suggested leaders in the field of education must intervene to provide tools to reduce stress to teachers. “Teachers leaving the profession before age of retirement is an ongoing problem in schools worldwide. While fewer teachers enter the profession each year, the number of teachers leaving the profession has increased” (Botha & Hugo, 2021, p. 64). One of the reasons teachers are leaving the field is because of the stress levels encountered on the job. “Teacher stress, or teacher exhaustion, syndrome has been widely studied in different school contexts around the world” (Vázquez-Cano & Holgueras-González, 2019, p. 23). The stress can make individuals not feel valued. “All this makes teachers view their profession as being one that is far from satisfactory,

adding to the list of professionals who are increasingly dissatisfied with their jobs" (Vázquez-Cano & Holgueras-González, 2019, p. 23). Not only does stress have an impact on their job satisfaction, but it also can impact their health. "In particular, a coping pattern of excessive professional commitment and a resigned pattern, which is characterized by lowered professional commitment and lowered coping capacity, are thought to be associated with risks to health" (Adams et al, 2016, p. 138). The impact of the stress on their health can lead to them leaving the profession early.

> Given these health-related consequences of stress, it is not surprising that many PE teachers contemplate leaving their jobs as PE teachers or actually leave the PE teaching profession. This is a problem for the PE teachers as affected individuals but also for the school system as a whole. (Lee et al., 2019, as cited in Pels et al., 2022, p. 1)

One of the interventions studies in the literature review demonstrated had been effective with different groups was mindfulness.

> Mindfulness-based practices generally derive from ancient Buddhist meditations, such as Vipassana and Zen meditations, and include psychological interventions such as dialectical behavioural therapy, acceptance and commitment therapy, brief mindfulness induction (e.g., a single or few short-term sessions that teach a mindful approach to the present moment), and mindfulness-based stress reduction (MBSR). Overall, it has been demonstrated that mindfulness-based practices can lead to increased levels of self-reported mindfulness, enhanced psychological functioning and well-being, improved emotion regulation and reduced anxiety and depression in clinical populations. Moreover, the literature indicates that

> mindfulness interventions can ameliorate self-regulation], reduce rumination, and facilitate emotional control in healthy adults. (di Fronso et al., 2022, p. 1)

The literature review indicated many different mindfulness practices that can be utilized to help individuals reduce stress. “When considering the numerous mindfulness-based and mindfulness-informed programs that have flourished in the past decades it is not always clear that they all refer to the same mindfulness” (Levit-Binnun et al., 2021, p.1). In order to determine what mindfulness practices would be effective in the Purchase Line School District, the study was designed to use a variety of mindfulness activities. The activities included sensory activities using taste and sight, meditation, breathing, awareness of the body, and guided imagery (Appendix E). An example of one activity teachers participated in was tracing the number 8 on their palm slowly while breathing in as they traced it the first time and breathing out as they traced it the second time. They repeated this technique for one minute.

The study was designed to determine the specific practices that are effective in reducing the teacher’s perceived stress in this rural school district in Pennsylvania. Rodrigues de Oliveira et al. (2021) states,

> Thus, providing resources that, through stress reduction and emotional self-regulation, may enhance teachers’ personal sense of self and ability to adapt successfully to stressful life events to which teachers are exposed (personal and family drama, violence within and outside school boundaries, defiance from students, among others) is essential. (p. 2)

The information in the literature review about teachers leaving the profession, increased stress, and the impact mindfulness has had on other groups led the researcher to

focus on the causes of teachers' perceived stress and the impact mindfulness activities can have on teacher perceived stress in the Purchase Line School District with K-12 teachers.

The information in the study can provide information about the impact of mindfulness activities on teacher perceived stress and also their comfort level with implementing mindfulness in the classroom. A future study could analyze the impact mindfulness has on students in the classrooms in the Purchase Line School District.

> Stress continues to be a major threat to health and learning outcomes for adolescents. According to a recent study conducted by the American Psychological Association (APA), adolescents experience stress at levels comparable to adults, yet report having minimal healthy coping strategies. (American Psychological Association, 2014, as cited in Erbe & Lohrmann, 2015, p. 1)

In order for district leaders to provide support to their teaching staff, research must be completed about what the causes of teacher perceived stress are and what supports are beneficial to reduce those stressors that teachers are perceiving as the cause of their stress. The literature review has shown there are many causes of teacher stress. "ECTs' (Early Childhood Teachers) occupational health and safety can be further compromised by hazards in the workplace, the physical and emotional intensity involved in teaching young children, and children's challenging behaviours" (Logan et al. 2020, as cited in Fenech et al., 2021, p. 7). More research is needed in order for school leaders to address this stress.

> The challenges associated with the profession, such as administrative burdens, classroom management difficulties and lack of autonomy, contribute greatly to teachers' stress. Moreover, teachers encounter significant social and political scrutiny coupled with high levels of accountability as they perform their jobs. In our contemporary society, teachers strive for performance while trying to maintain a work-life balance, which leads to an insidious increase in stress. As an issue concerning both policy and practice, teacher stress has been treated as mundane and little attention is therefore devoted to it. (Kavenuke et al., 2022, p. 61)

This research will gather information about the perceived stressors for the teachers in the Purchase Line School District. In addition to gathering information about stressors, teacher perceived stress, knowledge and comfort level with mindfulness. The data gathered about the daily mindfulness activities will include if the teacher completed the mindfulness activity that day or if they did not complete the activity. The data gathered about completing the activity will be used in the data analysis to ensure the data is reliable and the implementation of mindfulness activities were actually completed and utilized by the participants.

The research plan for this study includes the collection of quantitative and qualitative data through the use of surveys. The researcher had a discussion with the administrative team about this study to gain input and insight from the team before meeting with the superintendent. The researcher then met with the superintendent and was granted permission to conduct the study and collect data using a pre and post survey along with three mindfulness activities and surveys each week for eight weeks.

The Institutional Review Board of Pennsylvania Western University sent an email to the researcher on September 21, 2022 with the IRB approval letter attached (Appendix F).

After receiving approval, the researcher sent communication to all teachers in the district. After participants volunteered to participate in the study and completed the informed consent, they were sent a link with the Teacher Perceived Stress and Mindfulness Survey (Pre) on October 17, 2022 (Appendix B). This survey gathered demographic information, their job satisfaction, their knowledge of mindfulness, and their perceived stressors. On October 24, 2022, teachers received an email with a link to a Google form which contained a mindfulness activity in the directions (Appendix E) and a survey (Appendix D) for them to complete. Each week beginning on October 24, teachers received three of these emails. The last one was sent on December 16, 2022. These surveys gathered information about participation in the daily mindfulness activities, teacher's stress level before the activity, teachers' stress level after the activity, if the teacher would recommend the activity, if the teacher would participate in the activity again, if the teacher perceived the mindfulness activity was beneficial in reducing stress, and if they would implement it in their classroom. On December 16, 2022, teachers also received an email with a link to the Teacher Perceived Stress and Mindfulness Survey (Post) (Appendix C). This survey collected information about teachers' job satisfaction, the impact teachers perceived that mindfulness activities had on their overall stress level, the impact teachers believed the activities would have in their classroom, the teachers' comfort level with implementing the activity in the classroom, the teachers' knowledge of mindfulness, the teachers' perceived stressors, and the

teachers' thoughts on beneficial supports to help them handle work-related stress. Throughout the study the researcher gathered the data from the Daily Mindfulness surveys in order to determine their impact on teacher perceived stress and participation in the activity. At the end of the study the researcher collected the data from the post survey and then compared the data to the data gathered from the pre survey. All information was gathered, complied, and analyzed.

Fiscal implications in this study were minimal. There were no direct costs to the researcher or the participants involved. The Purchase Line School District provides devices to teachers along with Google products. Teachers were able to access the Google forms using their school devices to submit the surveys. The mindfulness activities used were of no cost and teachers were able to participate in these activities without the need for additional resources. They accessed the activities through the Daily Mindfulness Activity Survey. Mindfulness activities were listed at the top of the survey. The participants spent three to five minutes on each daily mindfulness activity and survey and ten to fifteen minutes on each of the pre and post surveys. The researcher communicated with the participants by email that was provided by the district. All surveys were designed using Google forms and links sent using district provided email. The costs of this survey for the participants were the time it took for teachers to participate in the mindfulness activities and complete the surveys. The other cost was the time of the researcher to complete the study.

Research Design, Methods and Data Collection

This action research will utilize a mixed methods approach including teacher surveys and participation data. The data collected contained both quantitative and

qualitative data that was analyzed. Participants completed multiple surveys which included multiple choice questions, Likert scale questions, and an open-ended question. Quantitative data was gathered from the surveys indicating the teachers' levels of stress prior to the mindfulness activity and after the activity. Qualitative data was gathered on the post survey from the open-ended question asking what supports could be put in place to reduced teachers' perceived stress.

The researcher received IRB approval to begin the study on September 20, 2022 (Appendix F). After receiving approval, the researcher had participants in the study fill out and submit their informed consent. After receiving the informed consent, the volunteers were then sent the Teacher Perceived Stress and Mindfulness Survey (Pre) (Appendix B) to fill out and submit on October 17, 2022. This survey collected information on the teachers' years of experience teaching, the grade level or levels taught, the teachers' gender, the teachers' knowledge of mindfulness, and the teachers' perceived stressors. The participants used a Likert scale to complete the perceived stressors to indicate how often they experience each stressor listed on a scale from 1-5 with 1 being never and 5 being very often. After completing the pre survey, the participants then completed Daily Mindfulness activities (Appendix E) and surveys (Appendix D) three times a week beginning October 24, 2022, and ending December 16, 2022.

After the eight-week intervention, participants completed the Teacher Perceived Stress and Mindfulness Survey (Post) (Appendix C) on December 16, 2022. All the surveys were distributed and collected electronically using Google forms and then exported to Google sheets to analyze the data.

The researcher gathered and analyzed information from all the surveys to answer these research questions.

Research Question 1. What are the perceived causes of teacher's perceived stress?

Research Question 2. What is the perceived effect on how mindfulness has affected their stress level?

Research Question 3. Do the demographics of a teacher make a difference in their perceived stress?

Research Question 4. What is the teacher's perception of the impact mindfulness activities would have on their classroom?

The timeline below shows the timeline that was proposed by the researcher for the study to answer the research questions.

<u>September- October 2022</u>

- IRB Approval Received- September 21, 2022 (Appendix F);
- Initial email sent to all teachers in the Purchase Line School District with link to informed consent (Appendix A);
- Informed Consents gathered;
- Random numbers drawn by the teachers on October 10th to use as their participant number in order to submit surveys anonymously;
- Email sent with link to Teacher Perceived Stress and Mindfulness Survey (Pre) on October 17, 2022 (Appendix B);
- Teacher Perceived Stress and Mindfulness Survey (Pre) data collected and analyzed;

- 8-week implementation of mindfulness activities, first activity (Appendix E) and survey (Appendix D) sent on October 24, 2022;
- Daily Mindfulness activity surveys (Appendix D) collected three times a week and data analyzed.

November 2022- December 2022

- Continuation of the 8-week implementation of mindfulness activities, last activity (Appendix E) and survey (Appendix D) sent on December 16, 2022;
- Daily Mindfulness activity surveys (Appendix D) collected three times a week and data analyzed;
- Email sent with link to Teacher Perceived Stress and Mindfulness Survey (Post) on December 16, 2022 (Appendix C);
- Teacher Perceived Stress and Mindfulness Survey (Post) data collected and analyzed (Appendix C);
- All data collected and analyzed including participation throughout the study.

Validity

To ensure validity of this action research the researcher took multiple steps during the study. After participants completed the informed consent, they chose a random number that they then used to submit and complete each survey. This ensured no names or emails were connected to the survey data. This coding minimized the possibility of the researcher being able to identify the participant's individual answers to the surveys.

The surveys that were used were reviewed to ensure the questions did not contain bias and would not lead the participants to particular answers. The questions used in the survey were created based on the guiding questions. These questions were developed in

order to gain information about teacher demographics and their impact on teacher perceived stress along with the perceived stressors. The questions were also developed to gather information about the impact of mindfulness activities on teacher perceived stress. These questions were developed in response to the literature review.

Throughout the study Google Forms were used. Participants were sent emails as communication and emails were sent using blind carbon copy to ensure participants were unable to identify the other participants in the study. The data collected using Google Forms was then directly exported to a Google Sheet. The data being directly exported in the Google Sheet was unaltered by the researcher.

A prolonged period of eight-weeks was used for the implementation of the study in order to ensure validity. Pre and post surveys were used, but there were also three surveys each week for eight weeks which gave regular data over the entire period of the study.

All teachers in the Purchase Line School District were offered the opportunity to participate in this study. There were 21 teachers who participated and filled out the informed consent. Demographic information was collected about these teachers and the participants included teachers from a variety of grade levels and positions, which is a factor to include in the validity. The teachers also included a variety of teachers with different years of experiences and knowledge about mindfulness prior to the study.

Another factor impacting validity is that there were different types of questions asked. Types of questions asked included multiple choice, Likert scale and open ended. Using different types of questions along with the use of multiple surveys allowed for an

analysis of data from multiple data sources. In addition, the eight-week period allowed for a thorough analysis of the different types of data over the eight-week time period.

This data was able to be triangulated by comparing the pre and post surveys to determine the participants view of the impact of the mindfulness activities. The daily surveys are able to be triangulated. There were 24 daily surveys sent for participants to complete. The data from all 24 surveys was collected and each analyzed to determine the participation in the activities along with the impact of individual mindfulness activities on teacher perceived stress.

The researcher works closely with all teachers in the district. In order to ensure participants were comfortable and would not be biased with the information submitted the survey data was not connected to the teacher by name or email; instead, it was collected by a random number that was drawn by the teacher. An administrative assistant oversaw the drawing of numbers. Therefore, the risk of identification by the researcher was minimized. This action research was conducted while the researcher was a student at Pennsylvania Western University under the supervision of an internal member of Pennsylvania Western University and an external member who reviewed all surveys for bias and provided feedback and guidance. The internal member was Dr. Todd Keruskin and the external member was Dr. Erich May who is the superintendent of the Brookville Area School District.

The researcher had very little knowledge of mindfulness practices prior to the study and therefore was not biased as to whether the practices would be beneficial or not in reducing teacher perceived stress.

One of the limitations to this study was that it was voluntary. The opportunity was offered to all teachers in the district, but only 21 out of the 68 teachers participated. The percentage of participants may have an impact on the accuracy of the results of the action research. Another limitation is that only one of the participants was male. The lack of balance between genders could lead to limited information on the impact of mindfulness activities on male teachers perceived stress. The goal is that data can be shared with district administration to provide proven activities and supports can be used to reduce teacher perceived stress in order to retain teachers in the profession. If we are able to reduce teacher stress, then a more positive learning environment will develop for students.

Summary

This chapter described the purpose of the research, along with the setting in which the action research took place. It also provided information about participants with the research plan while describing the methods that were used to design the research and collect the data. These methods were described along with the timeline in which the study took place. The fiscal implications and the validity of the research were discussed and in order to thoroughly analyze the data and provide recommendations an understanding of the methodology used in gathering data must be understood. The methodology used for this action research was designed in order to answer the guiding research questions stated in this chapter.

The next chapter will include the results of the multiple data sources and provide the quantitative and qualitative data results in regards to the guiding research questions that can be used to provide the district with feedback on stressors and the impact of

mindfulness activities on teacher perceived stress. The explanation of how the data was analyzed in order to answer each question will be provided along with identifying the pieces of data taken from each survey to address each question. These results will be used to then help plan the direction in which the district will move in regard to the implementation of mindfulness for all staff and students in the district.

CHAPTER IV

Data Analysis and Results

How do we support teachers' physical and mental health? Can mindfulness help to reduce teacher stress? Are there specific mindfulness activities that are preferred and recommended? Finding a way to support staff and reduce stress is something that administrators reflects upon when making decisions for organizations.

Teacher perceived stress is causing teachers to burn out and leave the profession early. Paired with individuals not entering the profession, this has led to concerns about being able to fill positions with individuals who are qualified for the position.

During this study, 21 practicing teachers in the Purchase Line School District volunteered to participate to determine if mindfulness activities would be beneficial in reducing their perceived stress. These teachers volunteered to participate in mindfulness activities three times a week for eight weeks.

Chapter IV will present the data and an analysis of the data that was gathered from the survey that teachers completed prior to participating in the mindfulness activities along with the daily mindfulness activity surveys and the post survey that teachers completed at the end of the eight weeks. Both qualitative and quantitative data was gathered and analyzed. This data provides information as to whether mindfulness activities have an impact on teacher perceived stress and, if so, what activities are the teachers most likely to utilize again in the future. The data also indicates if the teachers would be likely to use the activities in their classrooms along with information about the perceived causes of teacher stress and if the teachers' demographics affected their stress level. The results of this study provided valuable information about how administrators

can help implement supports for teachers and students to ensure that the optimal environment is established in their buildings and district.

Data Analysis

In this eight-week period teachers submitted surveys that were designed to answer the four research questions that were shared in previous chapters. There was a pre survey, a post survey, and twenty-four daily mindfulness activity surveys. These questions contained multiple choice, Likert scale, and an open-ended question. The four questions addressed were:

Research Question 1. What are the perceived causes of teacher's perceived stress?

Research Question 2. What is the perceived effect on how mindfulness has affected their stress level?

Research Question 3. Do the demographics of a teacher make a difference in their perceived stress?

Research Question 4. What is the teacher's perception of the impact mindfulness activities would have on their classroom?

Data was gathered from the pre and post survey completed by the teachers to address question one. This data was then analyzed to determine what the perceived causes were of the teachers' stress and if that perception changed from the beginning of the eight-week implementation of mindfulness activities to the end of the eight weeks.

Question two was addressed by both the pre and post surveys along with the 24 daily mindfulness surveys that teachers completed. This data was analyzed to determine if the teachers perceived that the activities had an effect on their overall stress level along

with what activities had the highest and lowest perceived effect. The data of the participants who completed all 24 mindfulness activities was compared to the perceived stress levels of the participants who did not participate in all 24 mindfulness activities. The pre and post survey along with the daily mindfulness surveys were used to address research questions three and four.

Results

Research Question #1

The first research question was "What are the perceived causes of teacher's perceived stress?" A thematic analysis was used to identify the patterns in the perceive stressors, self-care, and the perceived stress levels prior to the study and after the completion of the 24 activities. A survey was given prior to the implementation of mindfulness activities in October 2022 and a post survey completed in December of 2022. Twenty-four surveys, three each week, were completed over the course of eight weeks.

The invitation to participate and teacher consent form were sent to all 69 teachers who were employed by the Purchase Line School District in both the elementary and junior/senior high school buildings. The teacher consent form was returned by 21 teachers who volunteered to participate in the study. This is 30 percent of the teachers employed by the Purchase Line School District. The initial survey was sent to all 21 participants who volunteered to participate in the study and all 21 teachers that volunteered completed and returned the survey. The post survey was sent at the end of the eight weeks, and 20 teachers completed the post survey. The information is shown in Table 3.

Table 3

Pre and Post Teacher Demographics

	Pre		Post	
	Percent of Participants	Number of Teachers (*n*=21)	Percent of Participants	Number of Teachers (*n*=20)
Years of Experience				
0-3 years	0 percent	0	0 percent	0
4-6 years	4.8 percent	1	5 percent	1
7-10 years	28.6 percent	6	25 percent	5
11-15 years	9.5 percent	2	10 percent	2
16-20 years	9.5 percent	2	10 percent	2
More than 20	47.6 percent	10	50 percent	10
Gender				
Male	4.8 percent	1	5 percent	1
Female	95.2 percent	20	95 percent	19
Grades Taught				
Pre-K-6	66.6 percent	14	70 percent	14
7-12	28.6 percent	6	25 percent	5
Pre-K-12	4.8 percent	1	5 percent	1

All 21 participants completed the pre survey and 20 teachers completed the post survey. One male and 20 females completed the pre survey and one male and 19 females completed the post survey. The one individual who did not complete the post survey teaches grades 7-12 in the junior/senior high school. Six teachers who teach grades 7-12 in the junior/senior high school completed the pre survey, but five completed the post survey. The teacher who did not complete the survey also has been teaching 7-10 years. Six teachers who have been teaching 7-10 years completed the pre survey, and five teachers with 7-10 years of experience completed the post survey.

Through eight weeks the teachers participated in three mindfulness activities each week and submitted a survey after each activity. The data showing the percentage and number of activities completed is shown in Table 4.

Table 4

Daily Mindfulness Survey Demographics

	Percent of Completion	Number of Activities
Years of Experience		
4-6 years	100 percent	24
7-10 years	83 percent	119
11-15 years	100 percent	48
16-20 years	100 percent	48
More than 20	92 percent	221
Gender		
Male	100 percent	24
Female	91 percent	436
Grades Taught		
Pre-K-6	95 percent	318
7-12	82 percent	118
Pre-K-12	100 percent	24

The participants with 4-6 years, 11-15 years, and 16-20 years participated in all 24 of the mindfulness activities and surveys. The participants with more than 20 years participated in 92 percent of the activities and surveys. The teachers with 7-10 years had the lowest participation rate of 83 percent over the course of the eight weeks. The male completed all 24 activities, and the females completed 91 percent of the activities. The teacher who teaches at both buildings participated in all the activities and surveys. The elementary teachers had a higher participation rate than the teachers who teach only at the junior/senior high school.

Teachers rated stressors that they encounter while on the job on the pre and post survey. The teachers rated stressors that were in the categories mentioned in the literature review that previous research have found as sources of stress in education. This data is shown below in Table 5.

Table 5

Stressor Averages

Averages	Pre	Post	Difference
Students			
I have difficulty controlling my class	2.24	1.95	-.29
I become impatient when students do not do what is asked.	2.95	2.70	-.25
My students make my job stressful.	3.05	2.85	-.20
Support			
My administration make demands I cannot meet.	2.65	2.50	-.15
I feel like I cannot be myself with administration.	2.40	2.20	-.20
I feel isolated at work.	2.48	1.86	-.62
I feel like my colleagues do not think I am doing a good job.	2.14	1.71	-.43
I get little support from other teachers.	2.05	1.67	-.38
I have difficulty in my working relationship with administration.	1.85	1.90	.05
Parents			
Parents of my students are a source of concern for me.	3.00	2.62	-.38
I feel like my students' parents think I am not doing a satisfactory job.	2.33	1.95	-.38
Time			
I have too much to do and not enough time to complete tasks.	3.86	3.48	-.38
I have to take work home.	3.62	3.24	-.38
I am unable to keep up with giving feedback to students.	2.76	2.67	-.06
I have difficulty organizing tasks.	2.43	2.14	-.29

Note. Pre survey results based on 21 participant responses. Post survey results based on 20 participant responses.

Rating 1-5. 1=Never and 5=Very Often.

Each participant's response was added together and then divided by the number of participants who responded to the question to find the average. The data shows the perceived stressor that caused the most stress was the lack of time. The students and parents were the second and third largest contributors with administration being the smallest contributor to their stress. The participants indicated that students make their job stressful and that they often cannot complete tasks and have to take work home.

The response that showed the largest decrease was .62, which was feeling isolated at work. The participant's average response to having difficulty working with administration actually increased by .05 from the beginning of the survey to the end of the eight weeks. Every other response decreased from the pre survey to the post survey. The decrease in not having enough time to complete tasks and taking work home were both a decrease of .38 from the beginning to the end.

In the literature review, one of the stressors that was found by other researchers was that teachers felt there was never enough time to get everything completed that they were expected to complete while still providing the highest level of instruction to the students. The data from this survey correlated to the researched discussed in the literature review and showed that the largest perceived causes of teacher perceived stress was not having enough time to complete tasks.

There was a decrease from the pre survey to the post survey, but in both surveys, time was rated the highest perceived stressor for teachers. This is something that the district needs to be mindful of when planning for the future and finding ways to help streamline processes and demands that are put onto the teachers each year. Finding ways to help teachers feel like they do not have enough time can help reduce teacher burnout.

Research Question #2

Data was collected from the post survey about the teachers' overall perception on the perceived effect that the mindfulness activities had on their stress to address the question, what is the perceived effect on how mindfulness has affected their stress level? Participants were asked, "What impact did mindfulness activities have on your overall stress level?" The data was gathered and then disassembled into groups of participants that completed all of the activities and participants that completed some of the activities to provide a comparison of the two groups and their perception of the impact that the mindfulness activities had on their perceived stress. The data gathered from the post survey is shown in Table 6.

Table 6

Impact of Mindfulness Activities on Stress

Five of the twenty participants who completed the post survey, which is 25 percent of the participants, indicated that they did not believe that the mindfulness activities had an impact on their overall stress level. Sixty percent of participants thought that the mindfulness activities had some impact on their stress level, and 15 percent said that the mindfulness activities had a lot of impact on their stress levels.

In addition, data from the pre survey to data from the post survey about the overall perceived impact of mindfulness activities on their perceived stress data was also gathered and compiled from the 24 daily mindfulness surveys to determine the teacher perception of the impact of the activity on their perceived stress for each activity. The perceived stress teachers felt prior to the activity and the perceived stress that teachers felt after the activity was collected in the daily mindfulness surveys. This data was then

compiled and analyzed. The level of stress that teachers felt prior to the activity was added together and then divided by the number of teachers who competed the activity to get the average stress level prior to the activity. This process was then repeated to find the average stress level after completing the activity. This data is shown in Table 7. The activities are listed in Appendix E.

Table 7

Daily Mindfulness Activity Stress

	Pre	Post	Difference
Activity #1	3.35	2.85	-0.50
Activity #2	3.00	2.38	-0.62
Activity #3	2.70	2.15	-0.55
Activity #4	3.00	2.21	-0.79
Activity #5	2.95	2.74	-0.21
Activity #6	2.95	2.05	-0.90
Activity #7	2.89	2.21	-0.68
Activity #8	2.75	2.20	-0.55
Activity #9	2.67	2.17	-0.50
Activity #10	2.68	1.89	-0.79
Activity #11	2.62	2.33	-0.29
Activity #12	2.50	2.28	-0.22
Activity #13	2.80	2.40	-0.40
Activity #14	2.58	2.10	-0.48
Activity #15	2.61	2.22	-0.39
Activity #16	2.89	2.21	-0.68
Activity #17	2.50	1.85	-0.65
Activity #18	2.67	2.28	-0.39
Activity #19	2.58	1.95	-0.63
Activity #20	2.76	2.38	-0.38
Activity #21	2.68	2.32	-0.36
Activity #22	2.94	2.47	-0.47
Activity #23	2.69	2.50	-0.19
Activity #24	2.53	2.11	-0.42

Note. 1=No Stress, 2= Small Amount of stress, 3=Moderate amount of stress, 4=Stress that is causing a physical symptom such as irritability, high blood pressure, etc. 5=Stress to the point I cannot function.

The three mindfulness activities that showed the largest decrease in stress were activities six, four, and ten. Participants were asked to listen to a piece of music for two minutes and focus only on that music for activity six. This activity showed a decrease of .90 from the average prior stress level to the average post stress level. Both activities four and ten showed a decrease of .79 from the prior perceived stress to the post perceived stress. In both of these activities, participants practiced mindful breathing meditation.

By comparison activities five, twelve, and 23 showed the smallest decrease in the average perceived stress. Activity twenty-three showed the smallest decrease, which was .19. Participants completed ten jumping jacks concentrating on the movements during the exercise. Activity five was the next lowest with a decrease of .21. This activity included eating mindfully. To round out the bottom three, activity twelve showed a decrease of .22 from the prior perceived stress level to the post perceived stress level. Participants were asked to walk on two surfaces for activity twelve focusing on their feet touching the ground. The average decrease per activity was found by adding the perceived stress levels prior and subtracting that from the sum of the post perceived stress levels. That number was then divided by 24 since there were 24 activities. The average decrease in stress for each activity was .50. Some activities had a higher decrease in stress levels than others, but every activity demonstrated an overall decrease in perceived stress.

The number of participants who completed the daily mindfulness activities varied throughout the study. Table 8 shows the number of participants for each activity.

Table 8

Number of Participants for Each Activity

	Number of Participants		
Activity #1	20	Activity #13	20
Activity #2	21	Activity #14	19
Activity #3	20	Activity #15	18
Activity #4	19	Activity #16	19
Activity #5	19	Activity #17	20
Activity #6	21	Activity #18	18
Activity #7	19	Activity #19	19
Activity #8	20	Activity #20	21
Activity #9	18	Activity #21	19
Activity #10	19	Activity #22	17
Activity #11	21	Activity #23	16
Activity #12	18	Activity #24	19

There was an average participation rate of 91 percent over the eight-week implementation period. There were four activities that all 21 participants completed. These activities were number two, number six, number 11, and number 20. Participants traced the number eight on their palm for one minute while breathing in and out for activity two. Activity six was where the participants listened to music for two minutes: this is the activity that also showed the largest decrease in the perceived prior stress and the post perceived stress. Participants helped someone and concentrated on how that made them feel for activity 11, and activity 20 had participants say something kind to someone and concentrate on how it made them feel.

The activity with the lowest participants was activity 23, which was doing jumping jacks and concentrating on the movement. Sixteen of the twenty-one

participants completed the activity. The next to lowest participation rate was for activity 22, which was completing five finger breathing for two minutes.

Participants perceived effect of the mindfulness activities on their stress varied. This is shown in Table 9.

Table 9

Stress Reduction Each Activity

Do you think this activity is beneficial in helping to reduce stress? Responses					
	No	Yes		No	Yes
Activity #1	8	12	Activity #13	8	12
Activity #2	8	13	Activity #14	6	13
Activity #3	3	17	Activity #15	8	10
Activity #4	1	18	Activity #16	5	14
Activity #5	13	6	Activity #17	1	19
Activity #6	1	20	Activity #18	7	11
Activity #7	4	15	Activity #19	4	15
Activity #8	2	18	Activity #20	8	13
Activity #9	3	15	Activity #21	13	6
Activity #10	0	19	Activity #22	5	12
Activity #11	11	10	Activity #23	11	5
Activity #12	12	6	Activity #24	8	11

Note. Question asked. “Do you think this activity is beneficial in helping to reduce stress?”

Activity ten, mindfully breathing, was the only activity that every participant believed helped to reduce their perceived stress. The largest number of participants felt that activity six, listening to music, reduced their perceived stress, while activity five, eating mindfully, and activity twenty-one, drinking mindfully, had the most participants that believed the activity did not reduce their perceived stress.

The participant’s response for each activity varied, and overall, five participants indicated that they believed the mindfulness activities had no impact on their perceived

stress. However, twelve participants believed they had some impact, and three participants believed that they had a lot of impact. The activities that participants believed help reduced their stress were also the activities that showed the largest decreases in their rating of their pre-stress levels in comparison to their post stress levels.

The triangulation of all of this data has shown that the activities that would be beneficial in reducing stress in the workplace would be mindfully breathing with meditation and the use of music. Gathering the data from various sources and the use of using different questions to gather the same data ensures the validity of this data.

Research Question #3

The data was gathered and analyzed for question one and two using all the participants as one group. To address question three, about the demographics of teachers and their perceived stress, the data was then disassembled and reassembled into groups. The groups that were used to analyze the data were the gender of the participants, the years of experience, and the grade levels or building that the teachers teach. The group as a whole showed an overall decrease in their perceived stress and also a decrease in their perceived stress for each activity. The data in Table 10 shows the average stress prior to the activity and after the activity broken down by demographics.

Table 10

Demographic Daily Mindfulness Average Activity Stress

	Pre	Post	Difference
Gender			
Male	2.58	2.06	-.52
Female	2.75	2.25	-.49
Years of Experience			
4-6	3.00	2.42	-.58

7-10	2.89	2.46	-.43
11-15	3.04	2.22	-.82
16-20	2.50	2.33	-.17
More than 20	2.68	2.14	-.54
Grades Taught			
Elementary	2.79	2.29	-.50
Jr/Sr High School	2.53	2.04	-.49
All Grades	3.67	2.92	-.51

Note. 1=No Stress, 2= Small Amount of stress, 3=Moderate amount of stress, 4=Stress that is causing a physical symptom such as irritability, high blood pressure, etc. 5=Stress to the point I cannot function.

Gender, the buildings and the grade levels taught did not have a large difference in regards to the impact that mindfulness activities had on perceived stress. Both genders and teachers from all grade levels showed about the same as far as the decrease in the amount of perceived stress from the beginning of the study to the end. The difference between the one male and the average female decrease in stress was .03 and the difference between the elementary teachers and the high school teachers was .01. The one teacher that teaches all grades was .01 different from the elementary and .02 different from the Jr/Sr High School teachers.

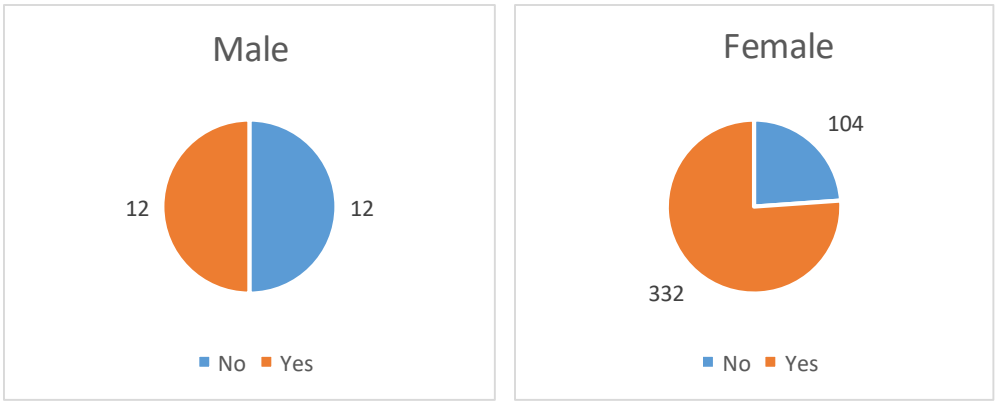
In comparison to gender and grade levels taught, the years of experience showed a larger discrepancy. Two teachers with 16-20 years of experience who showed the smallest decrease of stress at .17, while there were two teachers with 11-15 years of experience and their decrease in stress was the largest at .82. That is a difference of .65 between the largest reported decrease of stress and the smallest decrease when broken down by years of experience. The group with the most participants had more than twenty

years of experience and showed a decrease of .54, which is close to the overall average decrease of .50.

The participants also indicated on each daily mindfulness activity if they believed the activity helped to reduce their stress that day. The male in the study reported that 50 percent of the activities helped to reduce stress while the females indicated that 76 percent of the daily mindfulness activities helped to reduce their stress. Even though the reported difference between their stress prior to the activity and after the activity was similar the majority of females felt that the activities helped to reduce their stress as shown in Figure 2.

Figure 2

Daily Activity Reduce Stress Responses-Gender



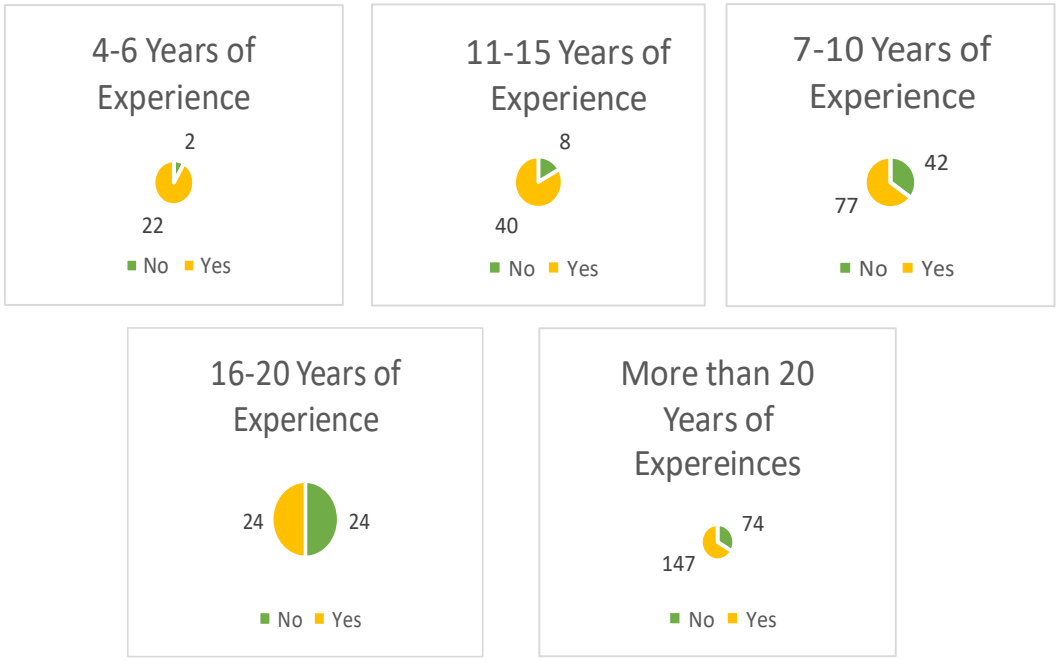
The gender of the participants did show a difference in the number of activities they felt were helpful in reducing stress, so then the data was analyzed looking at the numbers of experience. When the data was broken down into years of experience the teacher that had 4-6 years of experience felt that 92 percent of the activities helped in reducing stress while the teachers with 7-10 years of experiences reported that 65 percent of the activities helped in reducing stress. Teachers with 11-15 years of experience

reported that 83 percent were effective in reducing stress, teachers with 16-20 years of experience reported that 50 percent helped in reducing stress and the teachers with more than 20 years of experiences reported that 67 percent of the activities were helpful in reducing their stress levels from before the activity and after completing the activity.

All of the groups found more than half of the activities effective, while the teacher with 4-6 years of experience found the most activities effective and the teachers with 16-20 years of experience found the fewest number of activities effective in reducing stress. There was a large difference between the two groups: there was a difference of 42 percent. Teaching experiences did indicate a difference in the activities that they reported as effective in reducing stress as shown in Figure 3.

Figure 3

Daily Activity Reduce Stress Responses-Years of Experience



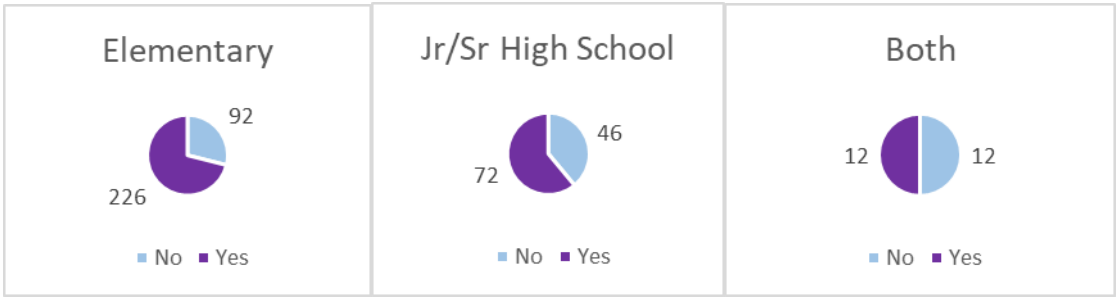
The teachers who teach at the elementary school showed a 71 percent response in favor of the activities reducing their stress, the jr/sr high school teachers provided that 61

percent of the activities helped to reduce stress, and the one teacher who is a teacher shared between both buildings responded that 50 percent helped to reduce stress. There was a 10 percent difference between the teachers who taught at the elementary building versus the teachers who taught at the jr/sr high school. The difference between the elementary teachers and the teacher who taught at both buildings was 21 percent and the difference between the teacher who taught at both and the jr/sr high school teachers was 11 percent. There were fourteen elementary teachers that were included in these responses, six jr/sr high school teachers, and one teacher that teaches at both buildings. The data is displayed in Figure 4.

All teachers who participated in the eight-week implementation of mindfulness activities were white. Therefore, the data was not analyzed to see if race had an impact on the effect of mindfulness activities on teacher perceived stress.

Figure 4

Daily Activity Reduce Stress Responses-Grades Taught



In addition to breaking the daily mindfulness survey data into groups by demographics; the post survey data that was gathered was also disassembled and reassembled into the different demographic groups based on their responses to the question, “What impact did mindfulness activities have on your overall stress level?” The responses are in Table 11.

Table 11

Demographic Impact of Mindfulness Activities on Stress

Number of Responses	No Impact	Some Impact	A Lot of Impact
Gender			
Male	0	1	0
Female	5	11	3
Year of Experience			
4-6	0	1	0
7-10	2	3	0
11-15	0	1	1
16-20	1	1	0
More than 20	2	6	2
Grades Taught			
Elementary	4	8	2
Jr/Sr High School	1	4	0
All Grades	0	0	1

The one male who participated in the study reported that the activities had some impact while five of the females believed there was no impact, eleven believed there was some impact and three believe there was a lot of impact. The data broken down into years of experiences was similar between the groups. When analyzing the data from the viewpoint of the grade levels taught the elementary teachers had two teachers who believed the activities had a lot of impact and the jr/sr high school had zero teachers who believed the activities had a lot of impact. The teacher who teaches all grades believed the activities had a lot of impact.

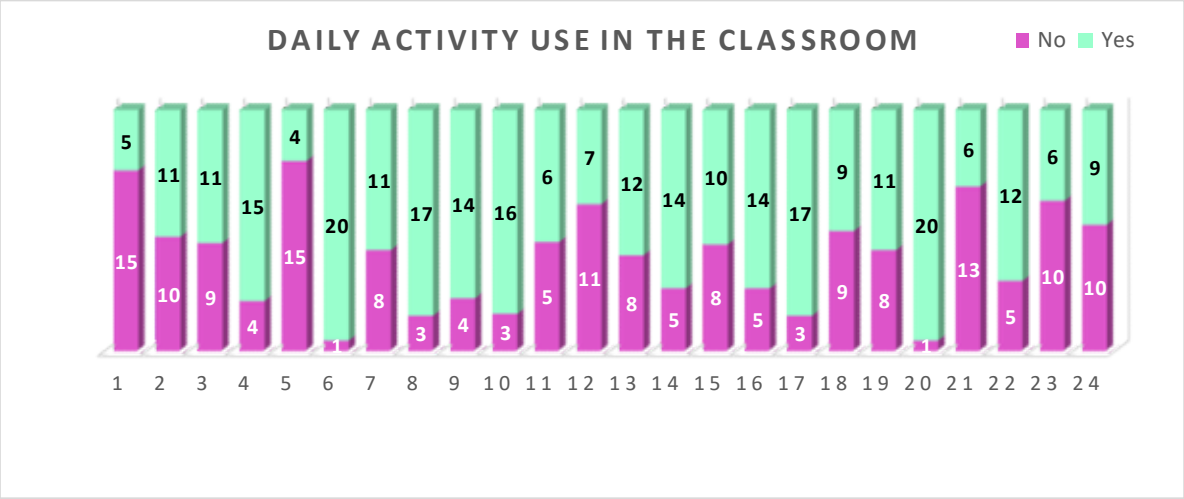
The data gathered from the post survey about the impact of mindfulness activities on teacher perceived stress did not have large discrepancies when broken down into demographic groupings.

Research Question #4

To address question four, what is the teacher's perception of the impact mindfulness activities would have on students in their classroom, data was gathered from each daily mindfulness activity survey along with data from the post survey that teachers completed at the end of the eight weeks. Teachers answered if they would use each activity that was completed in their classroom, if they perceived that the activities would have an impact on the class, and if they would be comfortable implementing mindfulness activities in the classroom. The data is displayed in Figure 5.

Figure 5

Daily Activity Use in Classroom



The data shows that 20 out of the 21 teachers would use activity six, listening to music, and activity 20, saying something kind and reflecting on how it made them feel, with the students in the classroom. By contrast, activity one, introduction to mindfulness, and activity five, eating mindfully, had the least number of teachers respond that they would use that activity in their classroom. Overall 62 percent would use the activities in the classroom. The teachers were also asked if they would be comfortable implementing mindfulness activities in their classroom. The data is displayed in Table 12.

Table 12

Comfort in Implementing in the Classroom

Number of Responses	Not Comfortable at All	Somewhat Comfortable	Comfortable
All Participants	1	13	6
Completed all Activities	1	6	4
Completed Some	0	7	2
Gender			
Male	1	0	0
Female	0	13	6
Year of Experience			
4-6	0	1	0
7-10	0	4	1
11-15	0	1	1
16-20	0	1	1
More than 20	1	6	3
Grades Taught			
Elementary	0	10	4
Jr/Sr High School	1	3	1
All Grades	0	0	1

The data showed that out of the 20 teachers who responded only one was not comfortable at all; six were comfortable. The one teacher who was not comfortable was a male with over 20 years of experience. Four of the teachers who were comfortable completed all the activities, and two completed some of the activities. The years of experience did not impact the responses of comfort level. Four of the elementary teachers responded that they would feel comfortable with the implementation, but only one jr/sr high school teacher responded that they would feel comfortable. There were 13 teachers overall who were somewhat comfortable, which indicates that professional development would need to be completed first before implementation into the classroom.

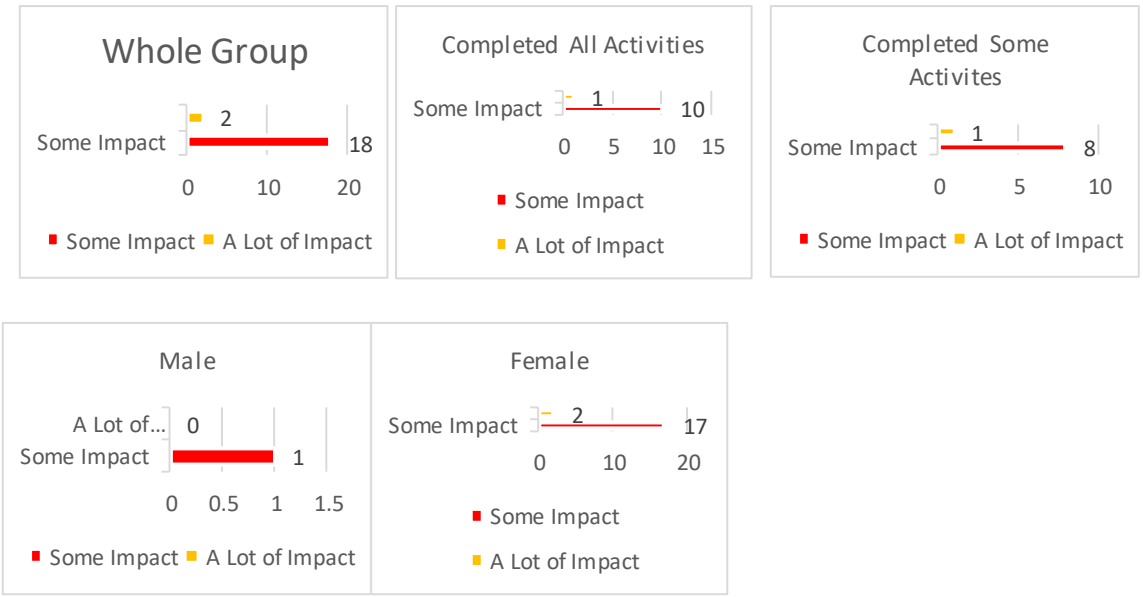
In addition to gathering information about if the participants would implement each activity in their classroom and their comfort level of implementing mindfulness

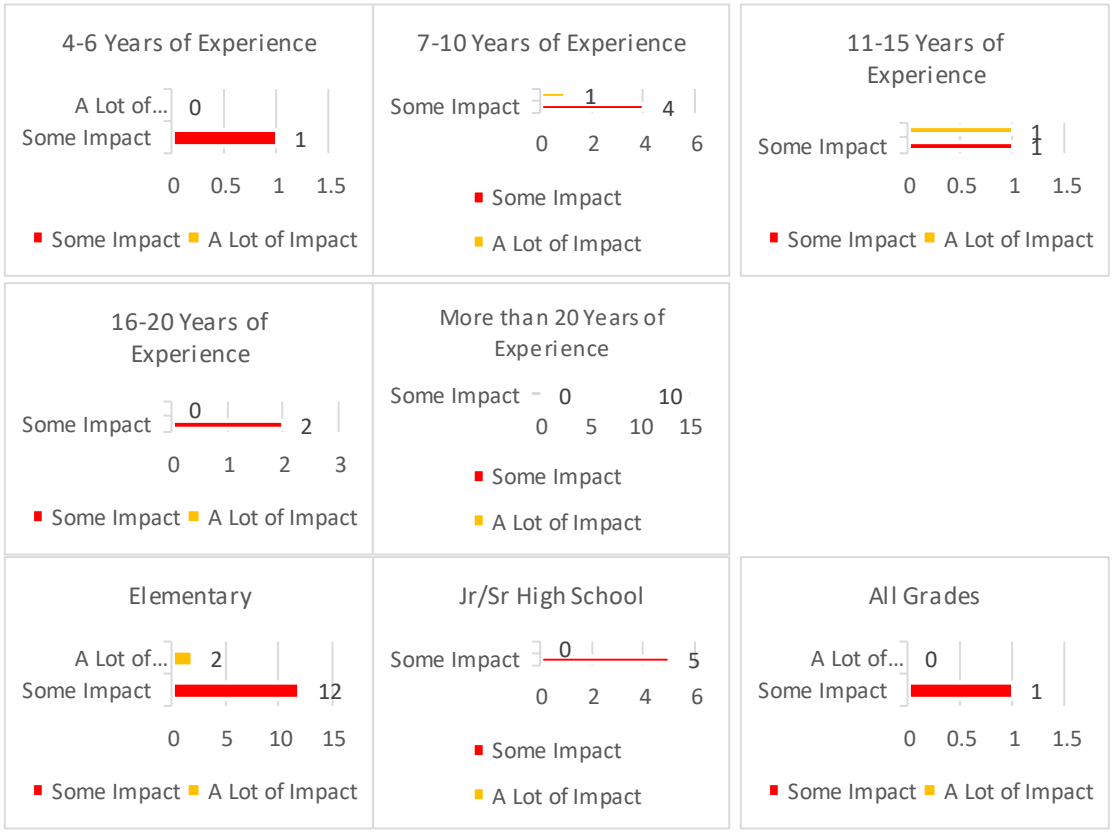
activities in their classroom, the post survey also gathered data about the teacher's perception of the impact that the mindfulness activities would have on their classrooms. This data is displayed in Figure 6. There was one teacher who did not complete the post survey. Out of the 20 teachers who responded, there were no teachers who thought that the implementation of mindfulness activities would have no impact. Eighteen of the teachers believed there would be some impact, and two believed there would be a lot of impact.

The data was then reassembled into the different subgroups to determine if the two teachers that believed it would have a lot of impact competed all the activities. The data showed that there was one teacher who completed all activities and one teacher who only completed some of the activities who believed it would have a lot of impact of their classrooms.

Figure 6.

Perceived Impact on the Classroom





Discussion

All of the data was gathered using Google forms and then was directly exported into Google Sheets. The data was then disassembled from the Google Sheets, grouped by questions and reassembled to analyze. The use of pre and post surveys along with the daily mindfulness activity surveys allowed for the triangulation of data. Quantitative and qualitative data were gathered over the course of the eight weeks.

Research Question #1

In response to**,** "What are the perceived causes of teacher's perceived stress?", the data showed that teachers demonstrated a variety of stressors, but when those stressors were grouped into categories, time was the stressor that had the highest rating. All responses were added together and then divided by the number of respondents to the

survey in order to find the average rating for each question. The stressor questions were asked on the pre and post survey through Likert scale questions. The two responses that teachers rated the highest from the pre survey were, "I have too much to do and not enough time to complete tasks" and "I have to take work home." These two were also rated the highest on the post survey.

In contrast, the lowest two rated stressors on the pre survey were, "I have difficulty in my working relationship with administration" and "I get little support from other teachers." Whereas, the two rated the highest stayed the same from the pre survey to the post survey at the end of the eight weeks. One of the two lowest rated stressors changed from the pre survey to the post survey. At the end of the nine weeks the two lowest rates stressors were, "I get little support from other teachers" and "I feel like my colleagues do not think I am doing a good job." The two stressors with the largest difference from the beginning of the study to the end were, "I feel isolated at work" and "I feel like my colleagues think I am doing a good job." The stressor with the smallest difference between the start and end of the eight weeks was, "I am unable to keep up with giving feedback to students." There was only one stressor that had an increase from the beginning to the end and that was "I have difficulty in my working relationship with administration." At the site of this study, the junior/senior high school principal was new this year, but the superintendent also announced he was leaving in the last month of the study.

At the beginning of the study, participants averaged 3.86 on the question asking if they have a hobby and by the end that was down to 3.50. On the pre survey, respondents averaged 3.48 on the question that asked if the hobby helped to relieve stress and 3.60 on

the post survey. Therefore, fewer reported having a regular hobby, but the response to it helping to relieve stress was higher.

In addition to the quantitative data collected through the use of Likert Scale questions, qualitative data was also gathered by asking teachers, "What could the school district provide to help support you as a teacher in handling work-related stress?" The data was coded to find patterns, and after coding the responses, it was found that seven responses were asking for more time and nine responses were asking for more support. Sixteen out of 20 participants answered this question. Some of the supports that were mentioned included wellness activities, more directed professional development, more input into decisions, and administrators who were positive and checked in with their employees. Some of the responses in response to time were trying to find a solution to the lack of substitutes so there was less coverage and that "administration could minimize the number of preps required for a teacher."

The stressors found were students, parents, lack of support, and time. Time was the largest perceived stressor in this study.

Research Question #2

The perceived effect of mindfulness on the participant's stress was gathered from the post survey and the daily mindfulness surveys. There were three teachers who selected that the activities had a lot of impact on their stress. All three of these teachers completed all twenty-four mindfulness activities. None of the teachers who completed all of the activities selected that the mindfulness activities had a lot of impact. Twelve teachers said that the activities had some impact on their stress, and five said they had no

impact. Three of the teachers who completed all activities selected that they had no impact and two of the teachers that did some activities said that they had no impact.

The twenty-four mindfulness activities all showed a decrease in the average reported stress from prior to the activity and after the activity. The average decrease was .50. The smallest decrease was .19, and the largest .90. That is a spread of .71 between the smallest and largest decreases for the activities. There were twelve activities that showed a decrease of .50 or larger and twelve activities that showed a decrease smaller than .50.

The participants were asked to rate their stress level prior to the activity and after the activity, but they were also asked directly if they thought that the activity was beneficial in helping to reduces stress. The choices for these questions were yes and no. These responses varied greatly depending on the activity. The activities with the largest number of recommendations were activity 17 and activity 10. Both of these activities had nineteen participants who answered yes. On the other end, activity 23 only had five participants responded yes that they thought it was beneficial in reducing stress. The average number of participants that responded yes was 13, and the number answering that it was not beneficial in reducing stress was 6. This was found by adding all the no responses together and dividing by 24 for the number of activities. The same was done to find the average for the number of participants that responded that it was beneficial.

The data from the post survey and the daily mindfulness surveys all aligned and showed an overall decrease in teacher perceived stress.

Research Question #3

The participants when looked at as a whole showed an overall decrease is stress, but do demographics make a difference in the perceived stress? The data was first analyzed looking at the whole group, then was broken down into two groups: teachers who participated in all the activities and teachers that only completed some of the activities. After looking at that data as a whole was then broken down into demographic subgrouping for gender, years of experience, and either elementary or jr/sr high school teacher. This data was then analyzed to determine if different genders had a different impact of the mindfulness activities on their perceived stress.

When the daily mindfulness survey data recorded about pre and post stress levels were analyzed, the females had a higher pre and post average stress level compared to the male. However, the difference from prior to the activity and after was only different by .03. Therefore, even though females had a higher reported stress level both genders perceived stress decreased about the same amount. The females did report that 332 out of the 436 activities that they completed helped to reduce their perceived stress, which is 76 percent of the activities where the male reported that only 12 out of the 24 had an impact on reducing his stress, which is 50 percent. At the end of the study the male did answer that they believe the activities had some impact, while the females had 11 answers that there was some impact, 3 that they had a lot of impact, and 5 that they had no impact.

The teacher who taught at both buildings had a higher pre-stress level of 3.67 compared to the teachers who taught only at the elementary school, 2.79, and the teachers who taught only at the jr/sr high school, 2.53. The teacher that taught at both buildings also had the highest perceived post stress level. The difference for all three groups was very close, the largest difference was .02, and the grade levels or buildings taught in did

not make a large difference in the impact that mindfulness activities had on perceived stress. The perceived average stress levels were similar but the teachers at just the elementary school reported that 71 percent of the activities helped to reduce their perceived stress which was 10 percent higher than the jr/sr high school. On the other hand, on the post survey, the jr/sr high school had one teacher that said the activities had no impact and four who said there was some impact while the elementary had four say there was no impact, eight say there was some impact, and two that reported there was a lot of impact. Therefore, some of the data contradicts the other piece when it comes to the grades taught. If we looked at just the reported perceived average stress levels there was not a large difference.

Years of experience was the only piece of demographic data that did indicate a difference. The teachers who had 11-15 years of experience had a pre reported stress level of 3.04 and the teacher that had 4-6 years of experience reported a perceives stress level of 3.00. After the activities the teacher who had 4-6 years of experiences rated their perceived stress at 2.42, while the teaches that had 11-15 years of experience rated their self-perceived stress level at 2.22. This was the largest decrease in any group of .82. The smallest decrease was in the 16-20 year subgroup of .17. The other three groups were .43, .58, and .54. The responses from the teachers as to whether they felt the activity was effective in reducing stress was also analyzed by years of experience. This data showed that the teachers with 4-6 years responded that the most activities had reduced their stress while the teachers with 16-20 years of experience reported the lowest number of activities as impacting their stress level. The teachers with 16-20 years of experience also had one teacher report at the end of the study that believe there was no impact and

one who said there was some impact. The 11-15 years of experience group that reported the highest decrease from the perceive stress levels reported that 40 out of 48 activities helped to reduce their perceived stress, and at the end of the study, one of them said there was some impact, and the other a lot of impact. The two groups of 7-10 years of experience and more than 20 years of experience were the two largest groups. All of the data from these two groups were similar. The teachers with 7-10 years reported that 65 percent of the activities helped to reduce their stress, and the group with more than 20 years reported that 67 percent of activities helped to reduce their stress. In the post survey, the teachers with 7-10 years had two participants report that there was no impact and three that there was some impact. The teachers with more than 20 years of experience had two teachers report that there was no impact, six that there was some impact and two that there was a lot of impact. The years of experience did indicate a difference in the perceived stress levels and impact of the mindfulness activities on that perceived stress.

Research Question #4

Data was collected and analyzed by subgroups to address the teachers' perception of the impact that mindfulness activities would have on their classroom. There were seven activities out of 24 that less than 50 percent of participates indicated that they would use in the classroom. On the post survey, none of the teachers indicated that they believed that mindfulness activities would have no impact on their classrooms. Ninety percent of the teachers believed they would have some impact, and ten percent believed they would have a lot of impact. The two teachers that believed they would have a lot of impact were females who teach at the elementary building and have 7-10 years of

experience and 11-15 years of experience. Overall, all teachers thought there would be an impact in the classroom.

Summary

The data presented indicated that the implementation of mindfulness activities was effective in reducing teacher perceived stress over an eight-week period. The data indicated that some of the mindfulness activities were more impactful than others and that teachers are still hesitant about implementing them into the classroom. Even though the teachers were hesitant about being comfortable with the implementation into the classroom they did indicate that they thought there would be an impact on student stress.

The demographics of the teachers did not indicate a large difference in the perceived stress. However, the perceived stress levels reported were the highest for the one teacher that goes between both buildings and teaches all grade levels.

In this chapter the data that was gathered during the eight-week period was described and presented for each research question. In the next chapter, the conclusions that have been made using the data that was collected will be presented for each of the research questions. These conclusions will also include recommendations about how the information will be used in the Purchase Line School district in order to impact teacher perceived stress in the future. After the conclusions and recommendations, the specific limitations of this research study will be presented, along with recommendations about further research based on the limitations and findings of this study.

CHAPTER V

Conclusions and Recommendations

This Doctoral Capstone Project was designed to determine the effect of mindfulness activities on Purchase Line School District K-12 teachers' perceived stress. The past few years have caused education to pivot and make many changes. The pandemic caused disruptions in education and led school districts to think out of the box about how education can and should be delivered not only in the present, but also in the future. When schools reopened may students still chose to remain online, which caused traditional brick and mortar programs to develop and maintain online options while balancing the students returning to full time in person instruction. Students had learning gaps that needed to be addressed, and the teachers had an increased workload trying to balance students' needs and the demands of delivering instruction in multiple ways. All of this has increased their perceived stress and caused educators to leave the profession. Teachers leaving the profession has led to the inability to find staff to fill positons. In addition, there is a lack of individuals entering the teacher profession, so schools are left being unable to find substitutes. This leads to increased workloads, which in turn leads to more stress.

In order to determine if mindfulness activities could be used as an effective tool to help decrease teacher stress in the Purchase Line School District teachers in this study participated in mindfulness activities three times a week over an eight-week period. Mindfulness is not something new, but has been around for a long time. "The concept of mindfulness has its roots in Buddhist tradition, with the term encompassing a non-judgmental acceptance, curiosity, and awareness of the present moment" (Fedewa et al.,

2022, p. 73). This traditional practice has been the topic of many different research studies over the years, but there have not been many completed in the educational field.

Since the research of mindfulness in education is lacking, this action research project focused on education. This action research utilized a survey before the implementation of the mindfulness activities (Appendix B), a survey after the eight-week period (Appendix C) and a survey three times a week with the mindfulness activities (Appendix D). The data gathered was analyzed to determine the impact of these mindfulness activities on teacher stress.

In the previous chapter, a compilation of the data was presented for each research question along with the results that were collected over the eight-week implementation period. In this chapter, conclusions related to each of the study's four research questions will be presented along with how this information could be applied in the Purchase Line School District. The limitations and recommendations for future research will also be included in the last sections of chapter 5.

Conclusions

The overall analysis of the data indicates that mindfulness activities reduce K-12 teachers' perceived stress. The data from the daily mindfulness activities demonstrated an average reduction of .50 percent in teacher's perceived stress levels prior to the mindfulness activity and after the mindfulness activity. Some mindfulness activities produced smaller decreases in perceived stress while others were associated with a larger decrease in stress levels. As further research is contemplated and decisions are made in districts and schools, the conclusions from each specific question should be taken into consideration before creating a plan.

Research Question #1

Teachers encounter different stressors each day while teaching in the classroom. The first question posed was, "What are the perceived causes of teacher's perceived stress?" This question was designed to determine the stressors present in the Purchase Line School District. If the cause of the teacher's stress can be determined, then appropriate measures can be taken to address the stressors and help provide supports to reduce those causes of stress. The analysis of the data included analyzing the stressors reported prior to the implementation of the mindfulness activities and at the end of the eight weeks.

The largest decrease from the beginning to the end of the survey was that teachers feel isolated at work. This decrease could be related to the initial start of the school year and staff beginning those first few weeks and falling into the daily routine and rhythm by the end of the study.

There was one stressor that showed an increase in stress, the teachers had difficulty in their working relationship with administration. This could be due to the new principal at the junior/senior high school or the announcement of the superintendent leaving the last month of the study.

The teachers indicated on the surveys that the largest rated stressor was lack of time, both on the pre survey and the post survey. This data indicates that administration should focus on how to streamline processes and ensure that teachers are only being given the required tasks in order to ensure that they have enough time to do their job well. Time is something everyone is asking for more of. Schools need to put practices and procedures in place that allow for time to be maximized to help reduce teacher stress.

Implications

In order to ensure that time is maximized for teachers the administration in the Purchase Line School District will evaluate and analyze the systems that are currently in place to determine if any can be streamlined. The teachers indicated having fewer classes to prep for would be beneficial in reducing their stress. The junior/senior high school principal will be tackling scheduling for the first time this year, and the courses that teachers will be teaching will be evaluated to minimize the number of courses teachers are prepping for next year. However, the balance of teacher needs and students needs must be taken into consideration and be at the forefront of all decisions.

Each program and system will be evaluated to determine how the systems can be improved in order to maximize teacher's time for the remainder of this school year and into the future. All the pieces will be analyzed in order to determine how to fit all the pieces of the puzzle together in the most efficient manner.

Reducing the classes that teachers are teaching along with streamlining processes and systems will allow teachers to have more time to focus on their instruction and should lead to a more positive climate and culture.

Research Question #2

The second question was, "What is the perceived effect on how mindfulness has affected their stress level?" The methodology and analysis compared the stress level prior to the mindfulness activities to the stress levels at the end of each of the mindfulness activities. A triangulation of data occurred with the post survey results, the rating of stress levels, and the question of if the teachers felt the activity was beneficial in reducing stress. The analysis of teachers' self-care practices for the twenty-one teachers was also collected and analyzed.

The post survey asked for the teacher's perception of the impact that mindfulness had on their stress. Out of the twenty-one participants, five did not believe that the mindfulness activities had any impact on their stress. Fifteen believed that there was an impact on their stress level, and one participant did not complete the post survey. Based on this data, it could be argued that the majority of individuals would benefit from the use of mindfulness activities to reduce their stress levels.

In addition, the data gathered before and after each mindfulness activity showed an average decrease between the perceived stress level reported prior to the activity and after the activity. The decrease for each activity did vary with the smallest decrease being .19 and the largest being .90. The activities offered varied each day. The activities that had the largest decreases related to mindful breathing and meditation.

The teachers also indicated on each daily mindfulness survey whether they felt the activity was beneficial in helping to reduce their stress. Out of the twenty-four activities there were five activities that teacher found less helpful. There were sixteen that the majority of teachers indicated that it was beneficial in helping to reduce their stress.

On the pre survey, six of the teachers reported that they never or almost never managed stress, and at the end four teachers reported almost never managing stress well. In the pre survey, three teachers indicated that they almost never participated in a hobby that relieved stress, and on the post survey there were two teachers who indicated that they almost never participated in a hobby that relieved stress. The pre and post survey numbers were similar in their responses about their hobby. In comparison there was one teacher who shared that they never managed their stress at the beginning and on the post, there were no teachers who responded that they never managed stress well.

In order to be able to maintain physical and mental health, teachers need to be able to manage their stress. Each individual has his or her own way to manage stress, and having a hobby is one tool that same teachers indicated that they have to manage stress. There was one teacher that indicated that they never managed their stress well at the beginning of the study on the pre survey and on the post survey they indicated that they almost never are able to manage their stress well.

Implications

Based on these results, mindfulness can be implemented with staff and the activities tailored to include activities that demonstrated the greatest reduction in stress. The activities that showed the largest effect was mindful breathing and meditation, so all the activities used would include these activities. These mindfulness activities will be implemented after the staff receives professional development about mindfulness. The activities will be sent using email to all teachers daily. Sending out the emails daily can help the teachers develop a routine in which they incorporate the daily mindfulness activities in each day and studies have shown that there is a greater chance of something becoming habit if it is practiced regularly. Practicing mindfulness activities regularly can help develop them into a habit which can then help lead to decreased stress.

Once the teachers experience the mindfulness activities then the following year, they could be implemented into classrooms to benefit students. Studies have shown that just a few minutes can have an impact. "Although mindfulness training sessions were only 3 minutes long, results provide suggestive evidence that even this very brief use of mindfulness techniques promotes emotional resilience in at-risk adolescents" (Culang et al., 2021, p. 11). However, teachers need to buy into the practice first before moving

forward to implementing mindfulness into the classrooms. In time, the implementation of mindfulness activities for teachers can lead to a reduction in their stress and also provide tools for students to help hem address their own stress.

Research Question #3

After gathering and analyzing the data to determine the causes of stress and if the mindfulness activities had a perceived impact on all the teachers, the third question, "Do the demographics of a teacher make a difference in their perceived stress?" was addressed by disassembling and reassembling the data by gender, years of experience, and by the building/grade levels taught.

Gender was one demographic that had limitations. There was only one male that participated. This makes it difficult to determine the impact that the activities would have on all males. There was also only one teacher that teaches grades K-12 and is shared between both buildings. Therefore, more data would need to be collected in order to determine the impact of mindfulness activities on teachers who teach in both buildings and all grade levels.

The teachers reported their perceived stress levels before and after each mindfulness activity. When broken down into male and female, the females had higher reported pre survey stress levels. However, more research with more than just one male would be needed in order to determine if gender has an impact on perceived stress levels.

The data was then analyzed according to the years of experience. The teachers with 11-15 years of experience reported the highest perceived stress levels prior to the activities, but the teachers with 7-10 years of experience reported the highest perceived post stress levels. All groups reported perceived stress within a difference of .50 percent.

When the data was analyzed by buildings or grades taught, the teacher shared between both buildings and teaching all grades reported the highest level of perceived stress. More research would need to be conducted to be determined if this is the case for all the teachers in this scenario. The elementary and high school teachers reported both pre and post perceived stress levels within a difference of .26.

Implications

Demographics did not appear to have a large impact on the perceived stress level that teachers reported. This information provides administrators the knowledge that all the teachers have perceived stress and that the demographics of the teachers do not change those perceived stress levels. Therefore, interventions and supports must be put in place for all individuals in the district in order to help reduce the amount of stress and give the teachers tools that they can use to help reduce their stress in order to create an optimal learning environment for all stakeholders. Reducing teacher stress can help keep teachers in the educational field by helping to maintain their mental and physical health. Since different demographic groups did not show large differences, school leaders can implement mindfulness activities with all staff in order to help reduce their perceived stress. This would have to be implemented carefully and thought through so that it was not seen as just another addition to the already fully loaded workloads that teachers are carefully balancing each day.

Research Question #4

After analyzing the data to determine teacher's perceived stressors and the perceived impact of mindfulness on their stress levels the data was then analyzed to determine,

"What is the teacher's perception of the impact mindfulness activities would have on their classroom?"

Teachers were asked if they would use each of the mindfulness activities in their classroom and whether they believed there would be an impact of the implementation of mindfulness activities on students in their classrooms.

There were seven activities that the majority indicated they would not use in their classrooms, but no teachers indicated they thought the implementation of mindfulness activities would have no impact on their classroom if implemented. One teacher indicated he would not be comfortable implementing mindfulness activities in the classroom, which needs to be taken into consideration.

The activities used for this action research were targeted for adults. The teachers' responses indicate that they think mindfulness activities would be useful, so using more examples of mindfulness activities that were designed for students may increase the number of activities they would use in the classroom.

Implications

Since all teachers believe that the implementation of mindfulness activities would be beneficial in the classroom, the district should look at how to implement mindfulness activities without having this implementation create more stress for teachers about seeing it as just another thing. This can be done during the professional development and when choosing the activities to ensure that they are beneficial to both the staff and students in order to put mindfulness in a positive light that contributes to a positive learning environment. The implementation must be done in a way that it does not add extra to the teacher's workload. The mindfulness activities designed will be designed so that they

can also be utilized in the classroom with students. This will allow for the teachers to picture how they would be able to utilize the activity with students in their classrooms.

Fiscal Implications

The fiscal implications of the study were minimal. Google suite was used for participants to submit surveys and for the researcher to analyze the results. Participants used laptops to access the surveys and mindfulness activities. The future fiscal implications would include the funding for professional development for the staff about mindfulness for their own physical and mental health along with professional development for the staff on the implementation of mindfulness in the classrooms.

The costs to implement a mindfulness program in the district would be minimal. The district currently allocates funds for professional development yearly that could be utilized for professional development on mindfulness. Therefore, the professional development for mindfulness would not necessarily be an additional cost to the district.

An additional cost that could be encountered would be if the district decided to implement an already commercially designed mindfulness program for staff and students instead of developing and implementing their own programming. Along with programming if the district would choose to use prebuilt surveys and databases to progress monitor, this would also be an additional fee.

Each teacher and student already are assigned a device. The Purchase Line School District is a one-to-one district. Along with having their own device there is a device in each classroom connected to a projector that could be used to lead the classroom in a mindfulness activity.

The implementation of mindfulness into the school programming and curriculum would not have to create additional costs to the district if the administrators and teachers are willing to write and develop the programming themselves based on research that is available.

Limitations

Even though there are minimal fiscal implications to take into consideration, there are limitations of the study that need to be examined when evaluating the data to make decisions for future programming in the Purchase Line School District. The invitation to participate in this eight-week implementation of mindfulness activities was sent to all sixty-nine teachers in the district, but only twenty-one of the teachers chose to participate. This is only thirty percent of the teachers in the district. More participants would have been ideal in order to ensure that a variety of all personalities and genders were included is the study.

Gender was another limitation in the study. Out of the twenty-one teachers that volunteered to participate, only one of those participants was a male. The small sample size of males makes it impossible to compare how mindfulness impacted stress of different genders. In order to make recommendation for the male population, another study would need to be completed where more males participate.

One of the reasons that there were small sample sizes is because the participation in the study was voluntary. In order to gather data from more teachers a study could be conducted that included teachers from other rural schools in the surrounding areas that matched the demographics of the Purchase Line School District. Once the implementation of mindfulness activities begins, then data will need to be collected to

monitor this implementation and its impact on teacher perceived stress in order to ensure that what is implemented is in the best interest of all and to make changes as needed.

Out of the twenty-one teachers that volunteered, only one teacher taught in both buildings, and six in the junior/senior high school, while fourteen teachers teach at the elementary school. It would have been ideal to have equal sample sizes in both buildings and to have all the teachers that were shared between the buildings participated in order to compare these groups thoroughly. These are three different demographics that will need to be examined when mindfulness activities are implemented.

The participants also included no teachers who had zero to three years of experience and only two with four to six years. In order to determine the effectiveness on teachers across the different years of experience, more teachers spread out among their experience would be needed. In this study the majority of teachers had more than twenty years of experience. Therefore, in order to determine how different stressors impact teachers at different points of their career a study that includes teachers in a certain band of years of experiences could be completed. The limitation of not having any beginning teachers in the study makes it impossible to know what supports to put in place in the induction plan at the beginning of a teacher's career so they do not burn out within the first few years.

Another limitation was that one participant did not complete the post survey. This means that the analysis and comparisons between the pre and post survey did not include all twenty-one teachers. Not only did one teacher not complete the post survey, but throughout the eight weeks not all teachers completed every daily survey and mindfulness activity. Each activity varied between its focus and time so all twenty-one

teachers did not experience all the different activities throughout the entire study. There were ten teachers who completed all of the activities along with the pre and post surveys.

Ideally the surveys and daily mindfulness activities would have been sent out the same days each week, but because the school schedule varies from week to week the surveys were not always sent out on the same days.

In regards to the stressors the junior/senior high school had a new principal this school year and one month before the end of the study the superintendent announced their departure, which could have had an impact on teacher perceived stress with administration.

Recommendations for Future Research

There were limitations to this study and in order to provide more effective supports for students and staff to help reduce their stress levels more research is needed with a larger group of participants.

One of the limitations was having only one male, further research would need a larger population of males in order to determine the mindfulness activities relationship with stress. Another limitation was not having any teachers with 0-3 years of experiences. Further research would be need in order to develop tools and strategies that would help beginning teachers and keep them in the field.

This study also took place in a rural school district that lacks diversity. More research would be needed with a larger more diverse group in order to determine the impact on everyone.

The mindfulness activities that were used varied from day to day. In order to determine what mindfulness activities would be of the most benefit, a more targeted

study with just one type of mindfulness activity would be needed. The activities that showed the largest decreases were with meditation and breathing. A study could be developed only using mindful breathing practices to determine the relationship between only mindful breathing and stress. The study could also be done with multiple groups and by giving each group just one type of mindfulness activity. This would allow the groups with different mindfulness activities to then be compared. This data could then be used by the researcher to determine which mindfulness activity is the most effective for teachers and then those activities could be used to help address teacher stress.

In addition, a targeted study with a larger sample size of teachers who teach just one subject or grade level would be beneficial to identify the impact mindfulness has on their perceived stress and their perceived impact on mindfulness in those specific classrooms. This research could also be used to narrow down what mindfulness activities are the most beneficial to each different group. The activities that are used for each group could also be activities that could be used with the students in their classrooms. This could help teachers visualize what the activities would look like with their students and possibly lead to more teachers feeling comfortable implementing these in their classrooms.

The last consideration for further research would be to have groups of teachers participate in different hobbies over a time period to determine if mindfulness or other hobbies are more beneficial in helping reduce teacher stress.

Summary

Stress is a part of everyday life for everyone, and all teachers encounter some form of stress on a daily basis or even an hourly basis. Leaders in education have a duty to help

support the staff in the buildings in order to provide an environment where students can thrive and excel. This study was designed to determine the relationship between mindfulness activities and teacher perceived stress. Teachers participated in mindfulness activities three times a week for eight weeks. The teachers completed a pre survey and post survey. Teachers also completed a survey each day they completed a mindfulness activity. All the data was compiled and analyzed, and after the analysis it was discovered that the data confirmed that all teachers have some stress and that their perceived stress levels and stressors are similar.

The largest stressor shown by the data was lack of time: teachers often have to take work home. One of the reasons that they have so much work is the lack of substitutes. Teachers end up having to cover other classrooms during the time they should be preparing lesson for the next day since there are not substitutes available to come in when a teacher is absent. One teacher said, "We also need to find a solution to our substitute shortage so the little time we have now is kept." Another stressor that was mentioned that relates back to time was the number of classes a teacher needs to prepare for. One teacher stated, "Administration could minimize the number of preps required for a teacher."

To help address teacher stress from stressors, this study evaluated the relationship of mindfulness activities to teacher perceived stress. The implementation of mindfulness activities was proven to help reduce teacher perceived stress levels over the eight-week period. The decrease in stress was .50 percent. Even though this is a decrease, it is a small decrease, and we must find ways to further decrease teacher stress levels. The teachers participated in various activities that demonstrated different impacts on teacher

perceived stress. When developing and implementing mindfulness activities for staff these activities should be evaluated and the activities that showed the largest decrease in the levels of stress should be used.

When designing supports for their staff, leaders need to remember, “Teachers enter the profession with enthusiasm for the new adventure. Unfortunately, when they start working, they encounter circumstances that give rise to stress” (Kavenuke et al., 2022, p. 59). In order to ensure that teachers do not get burnt out and leave the profession early they have to be equipped to handle stress, and this study shows that mindfulness activities can be one of those tools to help reduce teacher stress in the workplace.

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APPENDICIES

Appendix A

Teacher Consent Form

Dear Faculty Member,

As a teacher in the Purchase Line School District, you are being asked to participate in a research study teacher of stress and the effect that mindfulness activities have on that stress.
Your participation in this study will help the researcher learn more about how to help reduce stress in the workplace and provide supports for teachers to handle the stress in the workplace.

If you agree to participate in this study, you will be sent a mindfulness activity every weekday for eight weeks. Each mindfulness activity will take between 3-5 minutes. You will be asked to complete a Google Form electronic survey before the study that will take approximately 15 minutes to complete, a Google Form electronic survey after the study that will take approximately 15 minutes to complete, and a Google Form electronic survey each day that will take about 2 minutes to complete each day a mindfulness activity is completed.

The pre- and post-intervention survey will ask you questions about your background in teaching and questions regarding your perceptions of stress in the work environment. The daily survey will ask about the activity that was implemented that day.

Your participation in this study is voluntary. There will be no penalty if you choose not to participate and you can withdraw from the study at any point by notifying the researcher. There will be no penalty should you choose to withdraw. The researcher will not ask you why you opted to withdraw.

The benefits to participating in the study is to provide evidence if mindfulness activities can help impact stress and what supports can be put in place to help teachers handle stress in the work environment. There are minimal risks to this study. None of the questions asked will be of a sensitive nature, but you may not like answering questions about personal feelings. Participants can also stop their participation at any time without question.

All of the survey data that is collected will be kept confidential. Your survey responses will be anonymous. In the report of the findings no names will be used. Data will be password-protected and/or stored in a locked office.

The participation in this study is voluntary and you do not have to participate. If you choose to participate, please give your consent by typing your name and clicking continue to fill out the survey.

If you have questions about this study, please contact the researcher, Jessica Lindsay, at lin4417@pennwest.edu or at 336-493-1715. If you would like to speak with someone other than the researcher, please contact Dr. Todd Keruskin, Adjunct Professor at Pennsylvania Western University, at keruskin@pennwest.edu.

By typing your name and clicking continue you agree to participate in the study.
Approved by the Pennsylvania Western Institutional Review Board. This approval is effective 09/20/2022 and expires 09/20/2023.

Appendix B

Teacher-Perceived Stress and Mindfulness Survey (Pre)

1. What is your Gender?
   ____ Female

   ____Male

2. What grade/grades do you teach?
   ___ K ___1 ___2 ___3 ___4 ___5 ___6

   ___7 ___8 ___9 ___10 ___11 ___12

3. How long have you been teaching?
   ___ 0-3 years ___4-6 years ___7-10 years ____11-15 years
   ___16-20 years __ more than 20 years

4. What is your satisfaction with your current position?
   ___ Very Satisfied
   ___ Satisfied
   ___Neutral
   ___ Dissatisfied
   ___Very Dissatisfied

5. What is your knowledge level in regard to mindfulness?
   __ Superior Knowledge
   __Adequate Knowledge
   __Basic Knowledge
   __ Minimal Knowledge
   __ No Knowledge

Please answer all of the following questions using this guide: 1= Never, 2= Almost Never, 3=Sometimes, 4= Fairly Often and 5 =Very Often.

6. I have difficulty controlling my class	1	2	3	4	5
7. I become impatient when students do not do what is asked.	1	2	3	4	5
8. I feel like the lack of motivation to learn affects the progress of students.	1	2	3	4	5
9. My students make my job stressful.	1	2	3	4	5
10. I have difficulty in my working relationship with administration.	1	2	3	4	5

11. My administration make demands I cannot meet.	1	2	3	4	5
12. I feel like I cannot be myself with administration.	1	2	3	4	5
13. I feel isolated at work.	1	2	3	4	5
14. I feel like my colleagues do not think I am doing a good job.	1	2	3	4	5
15. I get little support from other teachers.	1	2	3	4	5
16. Parents of my students are a source of concern for me.	1	2	3	4	5
17. I feel like my students' parents think I am not doing a satisfactory job,	1	2	3	4	5
18. I have too much to do and not enough time to complete tasks.	1	2	3	4	5
19. I have to take work home.	1	2	3	4	5
20. I am unable to keep up with giving feedback to students.	1	2	3	4	5
21. I have difficulty organizing tasks.	1	2	3	4	5
22. I think badly of my job performance.	1	2	3	4	5
23. My job tires me out.	1	2	3	4	5
24. I experience elevated blood pressure, stiff necks, backaches, and stomachaches from stress.	1	2	3	4	5
25. I am tense by the end of the day.	1	2	3	4	5
26. I worry about my job.	1	2	3	4	5
27. I am unable to use effective methods to manage my stress.	1	2	3	4	5
28. I feel powerless when it comes to stress.	1	2	3	4	5
29. I feel like I manage my stress well.	1	2	3	4	5
30. I have a hobby.	1	2	3	4	5
31. My hobby helps me relieve stress.	1	2	3	4	5
32. I collaborate with my colleagues.	1	2	3	4	5
33. I feel supported at work.	1	2	3	4	5
34. I feel respected at work.	1	2	3	4	5
35. How often have you thought about leaving the position?	1	2	3	4	5
36. How often have you felt you were unable to control things in your life?	1	2	3	4	5
37. How often have you been upset because of something that happened unexpectedly?	1	2	3	4	5
38. How often have you felt confident about your ability to handle your personal problems?	1	2	3	4	5
39. How often have you felt that you could not cope with all the things you had to do?	1	2	3	4	5
40. How often have you felt that things were piling up so high that you could not overcome them?	1	2	3	4	5
41. How often have you felt like you were organized?	1	2	3	4	5
42. How often have you felt nervous and stressed in the last month?	1	2	3	4	5

Appendix C

Teacher-Perceived Stress and Mindfulness Survey (Post)

1. What is your satisfaction with your current position?
   ___ Very Satisfied
   ___ Satisfied
   ___Neutral
   ___ Dissatisfied
   ___Very Dissatisfied

2. What impact did mindfulness activities have on your overall stress level?
   ___ No Impact
   ___ Some Impact
   ___ A lot of Impact

3. What impact do you think mindfulness activities would have in your classroom?
   ___ No Impact
   ___ Some Impact
   ___ A lot of Impact

4. How comfortable would you be implementing the mindfulness activities in your classroom?
   __ Not comfortable at all
   __ Somewhat Comfortable
   __ Comfortable

5. What is your knowledge level in regard to mindfulness?
   __ Superior Knowledge
   __Adequate Knowledge
   __Basic Knowledge
   __ Minimal Knowledge
   __ No Knowledge

Please answer all of the following questions using this guide: 1= Never, 2= Almost Never, 3=Sometimes, 4= Fairly Often and 5 =Very Often.

6. I have difficulty controlling my class	1	2	3	4	5
7. I become impatient when students do not do what is asked.	1	2	3	4	5
8. I feel like the lack of motivation to learn affects the	1	2	3	4	5

progress of students.					
9. My students make my job stressful.	1	2	3	4	5
10. I have difficulty in my working relationship with administration.	1	2	3	4	5
11. My administration make demands I cannot meet.	1	2	3	4	5
12. I feel like I cannot be myself with administration.	1	2	3	4	5
13. I feel isolated at work.	1	2	3	4	5
14. I feel like my colleagues do not think I am doing a good job.	1	2	3	4	5
15. I get little support from other teachers.	1	2	3	4	5
16. Parents of my students are a source of concern for me.	1	2	3	4	5
17. I feel like my students' parents think I am not doing a satisfactory job,	1	2	3	4	5
18. I have too much to do and not enough time to complete tasks.	1	2	3	4	5
19. I have to take work home.	1	2	3	4	5
20. I am unable to keep up with giving feedback to students.	1	2	3	4	5
21. I have difficulty organizing tasks.	1	2	3	4	5
22. I think badly of my job performance.	1	2	3	4	5
23. My job tires me out.	1	2	3	4	5
24. I experience elevated blood pressure, stiff necks, backaches, and stomachaches from stress.	1	2	3	4	5
25. I am tense by the end of the day.	1	2	3	4	5
26. I worry about my job.	1	2	3	4	5
27. I am unable to use effective methods to manage my stress.	1	2	3	4	5
28. I feel powerless when it comes to stress.	1	2	3	4	5
29. I feel like I manage my stress well.	1	2	3	4	5
30. I have a hobby.	1	2	3	4	5
31. My hobby helps me relieve stress.	1	2	3	4	5
32. I collaborate with my colleagues.	1	2	3	4	5
33. I feel supported at work.	1	2	3	4	5
34. I feel respected at work.	1	2	3	4	5
35. How often have you thought about leaving the position?	1	2	3	4	5
36. How often have you felt you were unable to control things in your life?	1	2	3	4	5
37. How often have you been upset because of something that happened unexpectedly?	1	2	3	4	5
38. How often have you felt confident about your ability to handle your personal problems?	1	2	3	4	5
39. How often have you felt that you could not cope with all the things you had to do?	1	2	3	4	5
40. How often have you felt that things were piling up so	1	2	3	4	5

high that you could not overcome them?					
41. How often have you felt like you were organized?	1	2	3	4	5
42. How often have you felt nervous and stressed in the last month?	1	2	3	4	5

40. What could the school district provide to help support you as a teacher in handling work-related stress?

_____

_____

_____

Appendix D

Mindfulness Survey

Mindfulness Activity posted here.

1. Did you complete the mindfulness activity today?

___ Yes
____ No

Please answer all of the following questions using this guide: 1= No Stress, 2= A small amount of stress, 3=Moderate amount of stress, 4= Stress that is causing a physical symptom such as irritability, high blood pressure, etc. 5= Stress to the point I cannot function.

2. How did you feel prior to the activity?	1	2	3	4	5
3. How did you feel after the activity?	1	2	3	4	5

4. Would you recommend this activity to a colleague?

___ Yes
____ No

5. Would you participate in the activity again?

___ Yes
____ No

6. Do you think this activity is beneficial in helping to reduce stress?

___ Yes
____ No

7. Would you use this activity in your classroom?

___ Yes
____ No

Appendix E

Daily Mindfulness Activities

	Activity 1	Activity 2	Activity 3
Week 1	Learn about definition of mindfulness and purpose of mindfulness. (Adapted from, Psych hub, 2022)	Trace the number 8 on your palm slowly, breathe in as you trace it once, then breathe out as you trace it again. Repeat this for one minute. (Adapted from mindful, 2022)	Go outside and watch the sky or clouds for two minutes observe how they change shape, what do you hear, what do you see, concentrate on how the clouds are moving and changing shapes. (Adapted from Action for Happiness, 2022)
Week 2	**Activity 4**	**Activity 5**	**Activity 6**
	Mindful Breathing (Adapted from Every Mind Matters, 2019)	Eat mindfully today, take a bite of something and focus on the taste, the texture, and the smell. Look at the bite of food before eating. What does it look like, what texture does it have, what colors do you see, what do you notice that you have not noticed before? Take a small bite what information is your tongue giving you about the taste and texture. What do your teeth tell you, how does it feel when you swallow and it traveling down into your stomach? Does your body feel different at all, what about your mood, do you want another bite? (Adapted from Action for Happiness, 2022)	Listen to a piece of music for two minutes, concentrate on just that music and clear your mind. (Adapted from Action for Happiness, 2022)

Week 3	**Activity 7**	**Activity 8**	**Activity 9**
	Look around and find 3-5 things you find pleasant. Think about why you find those things pleasant. (Adapted from Action for Happiness, 2022**)**	Do a neck roll and pay attention to the sensations. Repeat this for one minute. (Adapted from mindful, 2022)	Close your eyes and listen for one minute then name three things that you can hear. Open your eyes and name two things you can see, and one sensation that you felt. (Adapted from Ackerman, 2017)
Week 4	**Activity 10**	**Activity 11**	**Activity 12**
	Complete the breathing meditation- (Adapted from Cal Sage, 2021)	Help someone today and then think about how you felt while helping that person and how you felt after. (Adapted from mindful, 2022)	Walk on two different surfaces. While walking on each surface concentrate on the feeling of your feet touching the ground. (Adapted from mindful, 2022)
Week 5	**Activity 13**	**Activity 14**	**Activity 15**
	Complete Body Shaking activity for a minute (Adapted from Class Catalyst, 2021)	Close your eyes and concentrate on what you hear. (Adapted from mindful, 2022)	Smile and pay attention the sensations and the use of the muscles while smiling. (Adapted from mindful, 2022

Week 6	**Activity 16**	**Activity 17**	**Activity 18**
	Complete Follow Your breath exercise for two minutes. Place your hand on your chest and notice how it moves up and down as you breathe. Count your breaths. 'Breathing in, one. Breathing out, two,' and so on. After spending a few moments paying attention to breathing, think about how you feel. (Adapted from mindful, 2022)	This breathing exercise can be called box breathing, or can exist by a few other names. It's a very simple breathing exercise that people that can be used by those who are in high stress situations. This is a great technique to control those ruminating thoughts while attempting to fall asleep. The practice is pretty simple: Breathe in for the count of four, hold your breath for the count of four, breathe out for the count of four, hold for the count of four, and repeat. (Adapted from Conscience Works, 2021)	Complete Body Tapping activity, (Adapted from Body and Brain TV, 2021)
Week 7	**Activity 19**	**Activity 20**	**Activity 21**
	2 Minute Body Scan Meditation (Adapted from Mindfulness Meditation, 2019)	Say something kind to someone today and then reflect upon how that made you feel. (Adapted from mindful, 2022)	Get something to drink, look at it closely, what does it look like, what color is it, how does it smell? Take a drink notice how it feels on your tongue, how does it taste what sensations do you have when drinking. (Adapted from mindful, 2022)

	Activity 22	Activity 23	Activity 24
Week 8	Complete Five-Finger Breathing for two minutes **(**Adapted from Mindful Breathing Meditation,2022)	Do ten jumping jacks paying attention to the sensations throughout your body. (Adapted from mindful, 2022)	Look around and find everything your favorite color, how does that color make you feel? Choose one object and look at it closely noticing every detail, what is the texture, how does it feel, is there anything you hadn't noticed about the object before? (Adapted from mindful, 2022)

Appendix F

IRB Approval

Institutional Review Board
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.

Dear Jessica,

Please consider this email as official notification that your proposal titled "Influencing or Ineffective? The Relationship between Mindfulness Activities on K-12 Teacher Perceived Stress" (Proposal #PW22-019) has been approved by the Pennsylvania Western University Institutional Review Board as submitted.

The effective date of approval is 09/20/2022 and the expiration date is 09/19/2023. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

(1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)

(2) Any events that affect the safety or well-being of subjects

(3) Any modifications of your study or other responses that are necessitated by any events reported in (2).

(4) To continue your research beyond the approval expiration date of 09/19/2023, you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.
Chair, Institutional Review Board