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Many adolescents in the United States experience stress from daily attendance at and outside school with family and peer interactions beyond their current abilities to cope. One accessible coping strategy, mindfulness, is increasingly known as a source of well-being and stress reduction; however, little is known about its uses in high school physical education (PE). An integrated approach values the physical education curriculum while exploring mindfulness strategies that claim to reduce negative emotions and support students' ability to cope with daily stressors. This study aimed to explore mindfulness strategies' role in adolescent well-being in secondary physical education. Data were collected from six students, 14-18 years old, from one urban high school after learning mindfulness during their PE class. An abbreviated Mindful Schools curriculum was delivered in one 30-minute lesson each week for a total of six weeks. Qualitative data collection was based on open-ended interviews, journals, observations, daily check-ins, and a final semi-structured interview. The data analysis process identified three themes: (1) emotional and self-awareness, (2) breath awareness, and (3) learned strategies for future use. Students learned strategies that equipped them with ways to manage conflicts and emotions that resulted in stress reduction. Mindfulness practices for daily living helped students lessen the burden of stressors while increasing their well-being. These practices provided ways for students to take charge of their emotions when conflicts arose and be more present for positive experiences. Additional studies exploring mindfulness-based curricula should be investigated in-depth in different contexts.

MINDFULNESS IN PHYSICAL EDUCATION:
AN INNOVATIVE PEDAGOGICAL APPROACH

by

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DEDICATION

My wife, Emily, I am forever in your debt as the source of the abundance of love and generosity you gave so freely in these past four years. For all the solo trips to run errands that took care of our home and family, the cheer ups, and the hugs ... they put me back together every time. I am grateful for your unwavering commitment to see me through to the end.

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APPROVAL PAGE

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CHAPTER I: PROJECT OVERVIEW

Many adolescents experience increasing levels of stress without the requisite skills to cope with perceived threats and challenges. Although these experiences are typical for high school (HS) students, researchers maintain a growing concern that lacking coping skills has significant negative implications for students' well-being (Broderick & Metz, 2016; Durlak et al., 2011; Evans et al., 2018). One can characterize well-being, or physical and emotional health, as one's ability to manage complex emotions, respond favorably to adversity, and continue to show willfulness over time (Black et al., 2019). Well-being includes decision-making skills and perspective-taking and often results in depression reduction of (Dahl et al., 2020). The choices students make when they do not learn simple strategies for healthy stress management skills appear to compromise well-being.

Many urban students face daunting challenges when learning effective coping strategies by attending under-resourced schools, having limited role models, and residing near neighborhood violence (Welsh & Swain, 2020). HS students who do not participate in athletics or other positive curricular activities may be the least equipped to handle their stressors. Adolescents can easily make unproductive coping choices (i.e., smoking, aggressive behavior, drinking), attention-worthy results reported biannually in the Youth Rater of Behavioral Surveillance Study (Appendix A) (Centers for Disease Control and Prevention [CDC], 2020). Worrying, ruminating on a problem, thinking wishfully, or socially withdrawing are unproductive coping behaviors (Baroni et al., 2018; Evans et al., 2018). Maladaptive behaviors may develop as aggression, anger, or anxiety in adolescence (Broderick & Metz, 2016). Productive coping skills (emotion management, self-control, self-awareness) are teachable in an established setting—high school. Productive coping is a process orientation for choosing strategies that allow the learner to control the stressor (Broderick & Metz, 2016; Evans et al., 2018).

Mindfulness is a pedagogical approach proven as helpful with adults that research can explore to encourage well-being in adolescents (Durlak et al., 2011; Monshat et al., 2012).

Mindfulness practice encourages openness, curiosity, and acceptance while increasing resilience (Bluth & Blanton, 2014; Broderick & Metz, 2016). These practices have positive effects on students' behavior, perceived stress, emotional regulation, and academic performance (Mendelson et al., 2010; Sibinga et al., 2013; Zenner et al., 2014). Being mindful, attentive, and non-reactive may create space between impulse and action, lessening one's propensity towards unproductive coping choices and negative behaviors (Schonert-Reichl et al., 2015). Practicing mindfulness increases personal bandwidth for responsivity rather than reactivity, thereby increasing the individual's capacity for greater wellbeing and happiness.

Children's well-being has received national attention since the 1990s (Desocio & Hootman, 2004), including a call-to-action for urban educators to design and develop various methods to engage with their at-risk students (who display a high probability of failing academically or dropping out of school; Schmidlein et al., 2014). When students enroll in high school, schools code them for risk factors associated with background and academic performance. In a study that examined urban students' perspectives on stress, youth-related stress was correlated with intense negative emotional states such as anger, depression, and frustration (Dariotis et al., 2016; Durlak et al., 2011; Pepping et al., 2016). Research shows that mindfulness-based interventions (MBIs) are transformative processes that help adolescents respond to these intense emotional states. Students can cultivate these skills in most health-related settings (Zenner et al., 2014). One of these health-related settings is PE.

Background Literature

Curricular and instructional changes that emphasize skills for coping and managing emotions, such as self-regulation, deep breathing, or movement can reduce stress effects (Dariotis et al., 2016; Kerrigan et al., 2011; Pepping et al., 2016). One such coping practice is mindfulness. Mindfulness is a state of consciousness in which a person brings awareness and

attentiveness to their immediate experience (Bluth & Blanton, 2014). Mindfulness practice cultivate present-moment awareness with kindness and curiosity. An individual can build awareness through focused attention strategies (using a focus object) or open awareness strategies (noticing stimuli and not pursuing them) (van Vugt, 2016). These strategies predict enhanced positive emotions (gratitude, joy, and contentment) and human flourishing, which link to resilience for participants who faced adversity (Fredrickson, 2001). Willard (2014), addressed mindfulness and teen anxiety by sharing that, “When I am studying, I know I am studying; when I’m running, I know I’m running; when I’m shooting hoops, I know I’m shooting hoops” (p. 35). Mindfulness is both an outcome and a process for practicing strategies (Bluth & Blanton, 2014). A teenager can use focused attention exercises (such as counting breaths) throughout the day, processes that rely on open awareness for managing emotions as they arise.

Practices

All K-12 school programming can teach and resource mindfulness-based activities (Kerrigan et al., 2011). Some mindful characteristics include being intentional, non-judgmental towards self or others, and observing moment-to-moment experiences compassionately (Kabat-Zinn, 1994). One practices observing a moment intentionally by directing and maintaining one’s attention on breath and bodily sensations. The “non-judgment refers to the dual capacity to notice one’s attention is drawn in by cognitive and emotional triggers related to experience and to notice this automatic tendency by intentionally exploring the experience without preconceptions or reflexive self-judgment” (Broderick & Metz, 2016, p. 360).

Mastering well-being abilities cannot be a choice at any age if one does not receive training. For mindfulness to be a method for achieving well-being, educators should introduce foundational lessons in health-enhancing courses such as PE.

Benefits of Mindfulness

Mindfulness practice benefits are physical and neuro-cognitive-based outcomes associated with stress reduction and increased wellbeing that limit personal suffering (Durlak et

al., 2011; Pepping et al., 2016; Zenner et al., 2014). Mindfulness training exercises' central mission is to orient the senses (physical) to the present experience and to cognitive processes (e.g., mind wandering, memories, future ruminations). In a 2010 study, Killingsworth and Gilbert reported that people experienced greater happiness when their attention was focused on the present moment or activities than when their minds wandered. In a 1997 research study, Shapiro et al. showed that meditation reduced mental effort and improved mental resource allocation. Findings such as these may impact academic outcomes and school completion for adolescents (Black, 2016; Diamond & Lee, 2011; Sheinman et al., 2018).

Open monitoring/awareness is a cognitive action that subtly taps into working memory through conflict monitoring and may impact academic outcomes. When confronted with opposing information, open monitoring allows one to attend more effectively (van Vugt, 2016). Open awareness also occurs when emotions arise in one's thoughts and one senses body tightness or muscle tension (stomachache); this may signal the skilled adolescent to take a deep breath. Exercises such as these may benefit adolescents, allowing them to experience emotions without becoming distracted by them, making them more cognitively flexible and less susceptible to strong emotions (Pepping et al., 2016; van Vugt, 2016).

A 2010 study of marines (Jha et al., 2010) suggested that practicing open awareness increased non-attachment to thoughts and feelings and increased working memory capacity. These findings indicate a translational ability to influence adolescents' cognitive and emotional behaviors and capacity. Mindfulness practice aims to increase acceptance for whatever is happening and enhance coping functioning with negative thoughts and emotions (Petterson & Olson, 2017). These benefits enhance 21st-century qualities and education goals (i.e., self-regulation, empathy, compassion, creativity, and problem-solving skills; Zenner et al., 2014).

So, How Does Mindfulness Work?

Mindfulness and self-regulation can influence which emotions arise and when, how long they occur, and how individuals experience and express them. In 2017, Mission Thrive Summer,

a collaborative community program in Baltimore, showed that a mindfulness intervention decreased perceived stress from 20.8 to 16.2 (Pierce et al., 2017). Additionally, participants' interview responses indicated that due to program interventions, they engaged in significant lifestyle changes (Pierce et al., 2017).

The .b Foundations (a teacher-adapted mindfulness course) taught mindful movement focused on walking, body scans, breathing practice, and a 20-minute sitting practice (Todd et al., 2019). Results showed significant reductions in stress (6.38) and anxiety (3.36). These results support teaching mindful movement as a strong component for practicing mindfulness in PE. Research encourages being intentional with the mindful movement type and highlights awareness on what is happening in the mind during these school programming classes.

Mindfulness in Schools

According to Philibert (2017), in the eBook *Everyday SEL*, those who practice mindfulness in learning environments could be consciously aware of emotional, physical, and mental distractions while staying in the present moment. Mindfulness lessons can take place at the beginning, middle, and/or conclusion of class sessions (MindfulSchools.org, 2021). Practicing mindfulness strategies (such as counting breaths) takes only a few minutes at a time. Mindfulness research shows that participants who counted their breaths for nine cycles had more self-awareness, were less distracted, experienced less mind wandering, and had a better mood than the control group (Levinson et al., 2014; Sheinman et al., 2018). Counting breaths is a primary strategy for incorporating mindfulness into educational programming.

Integrated strategies help students to relax, be alert to body and breath, and focus attention on letting go of worries and negative self-perceptions (Knothe & Marti, 2018). Guiding adolescents through emotional detachment helps them reframe a stressor. Using mindfulness in schools may improve student behaviors, coping and communication skills, improve stress-management, enhance self-knowledge and self-acceptance, and improve cognitive performance (Mulhearn et al., 2017). Students in HS PE come with myriad coping strategies.

Mindfulness in PE

Interventions that effectively target adolescent anxiety, stress, and impulsivity could positively affect health behaviors. Some adolescents display poor self-control and impulsivity, both of which are associated with poor health behaviors (Salmoirago-Blotcher et al., 2019). PE is an optimal suggested class that could provide helpful information and activities to meet all students' needs. Research considers poor health behaviors as major obstacles to adopting and maintaining health-supporting behaviors in this population (Pepping et al., 2016; Salmoirago-Blotcher et al., 2019; Zenner et al., 2014). Mindfulness in PE combines current evidence-based health strategies and requires an open-minded approach for successful implementation.

According to a 2017 sports rehabilitation article, two important and necessary factors for mindfulness implementation are: (a) the MBI intervention should be led by a qualified mindfulness instructor, and (b) lessons should account for teaching time and allow students to practice mindfulness (Pettersen & Olson, 2017). Research identifies various benefits from integrating mindfulness training into school-based programming. Some examples are students using positive coping strategies, greater impulse control, and enhanced trust between teachers and students (Dariotis et al., 2016).

PE is a school-based curricular program aiming to improve physical and health behaviors for students. PE in high school can improve young people's lives by integrating mindfulness as an evidence-based well-being practice. Researchers currently know little about mindfulness-based interventions in secondary PE programming within the school day.

In *Harvesting Harmony: Mindfulness in Physical Education*, researchers addressed self-awareness through PE programs. Teaching self-awareness via mindfulness can benefit students, communities, and perhaps our nation's future (Mulhearn et al., 2017). The article explored mindfulness benefits using the Mindful Schools curriculum and found positive effects (Mullhearn et al., 2017). Some improvements included paying attention, self-control, participation, and caring/respect for others, which increased after mindfulness exercises and

over time. Other benefits included stress reduction, enhanced self-knowledge, improved cognitive performance, and positive affect (Mulhearn et al., 2017).

High School Physical Education

PE programs have long counteracted youth and adolescents' unhealthy behaviors and increased health-related skills (CDC, 2020; Piko & Keresztes, 2006). PE teachers teach well-being information and skills in addition to physical activity to meet required national and state standards for high school PE classes. With more than 50% of high school adolescents enrolled in a PE class during their HS tenure, PE teachers can teach specific wellness strategies to a large portion of the HS population (CDC, 2020).

Kretchmar (2006) suggested that PE should focus “on health promotion and on quality-of-life education” (p. 6). This focus may require a shift toward more innovative (i.e., outside-of-the-box) teacher thinking. Curriculum changes require shifts along a continuum when moving away from traditional approaches (Alfrey & O'Connor, 2020; Doolittle, 2014). We must ask ourselves how we can use a particular curriculum to address a particular issue and how it will help students expand their consciousness and understand dynamics in the world where they live. How do teachers take lessons such as mindfulness and make small transformational changes? Critical pedagogy and curriculum transformation are at the heart of substantiated professional practices for PE teachers (Alfrey & O'Connor, 2020).

PE curricula are responsible for health promotion and educating the whole student. This responsibility contributes to a global curriculum shift toward well-being (Lynch, 2019). PE is in a prime position to address wellness objectives required by national and state standards. Texas HS PE standards introduce wellness concepts and expect that students will understand optimal health levels (Texas Education Agency [TEA], 2021). PE courses, by design, provide students with opportunities to receive health-related and health-enhancing skills that can continue into adulthood. Physical educators can design and implement critical pedagogy based on ideologies and philosophies that have a direct impact on student learning (Alfrey & O'Connor, 2020).

A critical classroom engages the student in shared power, integrates new ideas, and has cross-transformative discipline lines (Alfrey & O'Connor, 2020). By stepping away from traditional PE, HS teachers can assess, identify, and address adolescent health behaviors. PE teachers require multiple methods for providing meaningful experiences in urban gymnasias (Schmidlein et al., 2014). More importantly, benefits from implementing a curriculum that is authentic and applicable to students' day-to-day lives appears to be two-fold: it impacts health outcomes and healthy lifestyle skills (Azzarito & Ennis, 2003; Knop et al., 2001).

State and national PE standards support accessible and functional outcomes for students enrolled in a school-based program (Society of Health and Physical Educators America [SHAPE], 2020; see Appendix C). Standard Four states that the "physically literate individual exhibits responsible personal and social behavior that respects self and others" (SHAPE, 2020, p. 37). Therefore, PE classes may be an ideal setting for social emotional learning (SEL) and its expected positive outcomes. SEL skills are foundational for learning how to manage life effectively, cooperate with others, and cope with varying obstacles (Broderick & Metz, 2016).

The Collaborative for Academic, Social, and Emotional Learning (CASEL) reports five social emotional learning competencies: self-awareness, social awareness, responsible decision making, self-management, and relationship management (Zins, 2001). Each competency includes a list of skills that support the overarching competency that can be integrated intentionally into any curriculum rather than as a separate program that teachers must learn or substitute for other objectives (Philibert, 2017). SEL is a process whereby children enhance their abilities to integrate thinking, feeling, and behaving to achieve important life skills (Zins, 2001). Mindful yoga suggests that prosocial behaviors increase from engaging with these strategies (Vicente & Stuhr, 2022).

Social Emotional Learning (SEL)

Researchers recognize SEL and mindfulness as complementary to one another (Broderick & Metz, 2016; Durlak et al., 2011; Schonert-Reichle et al., 2015); they further consider mindfulness as a curricular strategy to promote SEL (Reindl et al., 2020). SEL comprises five competencies (Appendix B) whereby students with positive social and emotional skills demonstrate resilience when faced with conflicts and stressful situations (Broderick & Metz, 2016; Durlak et al., 2011; Luthar & Brown, 2007). Schonert-Reichle and Roeser's (2016) research suggested that mindfulness enhances social emotional development through SEL school programming. Schools employ SEL programs at an increasing rate within school-wide multi-tiered systems of support (MTSS) to meet students' needs (Eklund et al., 2018).

Mindfulness and Social Emotional Learning in PE Equals Innovation

A meta-analysis performed by Durlak et al. (2011) established that SEL should be an essential focus for pre-K-12 schools. Undeveloped or absent SEL skills likely contribute to negative student behavior. Schmidlein (2014) supported this, sharing a teacher reporting a behavior modification plan that included simple concepts such as cooperation, teamwork, and respect for the speaker during high school PE. Health and physical education standards across 49 states and national PE standards highlight these same standards (Eklund et al., 2018; SHAPE, 2020; see Appendix C). These standards exist to guide curriculum development and instruction. The secondary curriculum describes ages 14-18 years as a prime range to expose adolescents to mindfulness, as their increased brain plasticity allows for new learning and life-long habit adoption (Dunning et al., 2019; Hanley et al., 2015; Obi et al., 2020). Similarly, mindfulness research in elementary PE suggests increased focus (Reindl et al., 2020). Mindfulness practices that have the potential to influence students in positive ways may help educators meet SEL competencies.

Mindfulness Program

Equipping young adults with coping skills may have a monumental effect. Research shows that incorporating mindfulness into secondary education settings benefited youth in urban schools (Dariotis et al., 2016; Pepping et al., 2016). A mindfulness intervention yielded positive results in 5-, 8-, and 16-week mindfulness programs (Dariotis et al., 2016). These programs reported improved stress management skills, decreased perceived stress, and a happier disposition towards daily life (Dariotis et al., 2016). Sparks and Viadero's (2016) study showed that as students got older, they were more apt to suppress or obsess over their emotions. Further, adolescents were less likely to ask for help or accept their feelings, another unhealthy coping habit.

Hjeltnes et al. (2015) found that adolescents reported experiences wherein mindfulness helped them stay calm during stress and anxiety; the approach reduced shame by increasing an understanding of anxiety as a shared human struggle. Participants also reported feeling more self-acceptance when faced with difficult situations. This research showed that adolescents applied these exercises to stay focused during learning and performance, explore new academic learning with curiosity rather than a fear of failure, and when taking an academic exam (Hjeltnes et al., 2015).

HS students are in a critical position to obtain lifelong skills that relate to health, wellness, and coping with stressors. Although standards require HS PE classes to teach well-being information and skills, limited research exists on how teachers deliver curricula and how mindfulness meets this need. This project's results will provide HS students with accessible skills for day-to-day emotional management, self-regulation, and coping strategies. These strategies complement Kinesiology and, more importantly, enhance the PE teacher's ability to reach national and state PE standards while providing life-enhancing tools to one of the most vulnerable populations—HS students.

MBIs help transform how individuals relate to and engage with their own minds, bodies, thoughts, and feelings; consequently, they may also transform behavior and social relationships (Roeser, 2014). With strong support for these themes in this qualitative analysis of mindfulness interventions in schools, it appears that secondary-aged students would highly benefit from a PE class that includes MBIs. No researcher has yet studied or evaluated a school PE program integrating mindfulness for effectiveness. This study's purpose is to explore adolescents' perspectives on their ability to cope with stressors before and after implementing a coping skills mindfulness program to address this gap in the literature.

Purpose and Specific Aims

This study's purpose was to explore mindfulness strategies' role in adolescent well-being in secondary PE. The specific aims were **Aim #1:** Investigate students' perspectives on the mindfulness program integrated into PE and **Aim #2:** Explore mindfulness' effect on students' perceived stress and social emotional learning.

Methods

In the research, a mindfulness intervention was integrated into a HS PE class. The aims were addressed using qualitative methods and grounded in the social constructivist learning theory (Azzaritto & Ennis, 2003). The study took place in one PE class in an urban high school in North Texas. The researcher was the mindfulness teacher who implemented the 6-week mindfulness-based intervention in the PE program in Fall 2021.

Mindfulness Approach

The foundational practice of mindfulness is learning to harness the power and sustainability of the breath. Each lesson is enhanced by other mindfulness strategies; however, the present moment awareness of the breath remains the skill attainment. In Appendix G, the identified lesson is accompanied by the strategy to learn and a facilitated practice.

Researcher Positionality

As a researcher, mindfulness facilitator, and a person who practices mindfulness meditation, I have acknowledged personal assumptions, values, and biases, such as serving in both roles as teacher and researcher (Miles et al., 2014). I understand that since first implementing mindfulness into elementary PE classes, afterschool programs, and HS programming visits to reach adolescents through mindfulness, I expect to some degree that mindfulness is a benefit to most. The two biases the researcher will introspectively reflect on and interrogate are (a) the researcher's personal experience with mindfulness as a strategy for managing stress and lifestyle and (b) prior research experience with mindfulness in an afterschool program. As an adapted PE teacher, daily interactions with adolescents demonstrate an intuitive need to support their learning through being a role model and providing mindfulness practices.

Participants/Setting

The pre-study observations allowed the researcher to engage with the student population of this class. Students in the PE class were observed behaving like most of their peers across the globe: smart phones in hand, dressed stylish, yet comfortable, and a mix of students with abundant energy and too little energy for the expectations. PE teacher shared that this class' population will change as this is a 'dumping ground' for boys who are removed from the football and basketball programs. There was an expectation that the class dynamics would change due to the athleticism of playing recreationally. The research study took place at an urban HS in North Texas, ranked 410th in the state and an enrollment of 1,814. Of those enrolled, 82% are minority, and 60% are economically disadvantaged (<https://high-schools.com/directory/tx/cities/mesquite/poteet-high-school/483039006301/>). The HS PE class, Individual Sports 4A, was made up of 34 students who were attending face-to-face classes in the fall of 2021. The eight participants were recruited from the students enrolled in this class. The students were all female, ranging from 14 to 18 years old, and enrolled in 9th-12th grades.

Three weeks prior to receiving consents and assents, researcher facilitated a presentation on stress as an introduction and a recruitment pitch for the study. Days after the stress presentation, students began engaging with researcher from expressed greetings to invitations to participate in the PE games. The researcher/mindfulness facilitator shared a presentation on stress as an introduction to the study. The purposive sampling recruitment process excluded anyone with previous mindfulness training or currently practicing mindfulness.

Program/Intervention

After IRB approval and participant consent/assent were received, the study was initiated. This HS PE class is 85 minutes in length, following a block schedule meeting every other day. The class is broken into three sections: a 30-minute PE lesson, a 30-minute mindful intervention lesson, and 25 minutes of PE. While the study participants engaged in the mindfulness lesson, the non-participating PE students remained in the gym for the skill application of choice. The study participants were in another setting nearby for a quiet environment and removal from the distraction of peers in the gym setting. The 6-week study entailed six mindfulness lessons with multiple strategies embedded into each one (Appendix G). At the conclusion of the 6 weeks of intervention, the participants and the PE teacher were interviewed.

Lessons

Lesson topics changed each week. In chronological order, the lessons covered were an introduction to mindfulness (posture, breathing, listening), mindfulness of breathing, heartfulness, body awareness, mindful movement, and mindfulness and thoughts. Most sessions began with grounding the body through posture and breathing as anchors and ended with an exercise in positive and kind self-talk. Each 30-minute mindfulness session started with a 5-minute check-in consisting of participants self-reporting their status of well-being. The remaining time included a 10-minute mindfulness practice, 5 minutes of journaling, 5 minutes of partner discussions, and 5 minutes to review the lesson. Participant check-in was recorded before and after the mindfulness lesson.

The first mindfulness lesson consisted of teaching the mindful breath and posture, a foundational practice in all consequential lessons. Participants were encouraged to practice throughout the day and at home. The participants practiced counting their breaths, varying the ratios of breathing (inhale 4-count, exhale 4-count). As each lesson progressed, the participant was challenged to remain focused on their breath. Breathing remains a fixture of anchoring people. Observations were noted during and soon after each lesson concluded. Participants asked questions about prior lessons and the conditions for practicing mindful breathing. Short discussions about mindfulness and health topics were often organic in the sessions.

Participants were given a journal that had 12 prompts (see Appendix F) and blank pages for writing or drawing. The first six prompts paralleled the lesson each week. Additional prompts were included to give participants choices and allow the researcher to get to know them better; participants were also encouraged to respond freely outside of class to prompts of their choosing. They were collected at the end of each lesson for coding and returned to the student that day. When the 30-minute lesson ended, the participants returned to their PE setting with the PE teacher and all enrolled students.

Data Collection

Qualitative data were collected from the participants' responses in a semi-structured interview, daily check-ins, observations, journal reflections, and a final interview. The data collection began two weeks prior to the beginning of the study with class observations, continued during the six weeks of interventions, and concluded with the final interview. Member checking occurred a week after the study's conclusion.

Interview

The interview included demographic information and open-ended questions on the participant's responses to stress and well-being examples. For example, one of the questions asked was, "Do you have ways or strategies that you use to manage your emotions or combat

stress?” Another question included, “In your own words, define what stress means to you?” to better understand participants’ self-awareness of stress and wellbeing (see Appendix E).

Daily Check-Ins

The daily check-ins were student self-reports at the beginning and end of each mindfulness-integrated class period. Each participant reported a number between 1 and 10, with 1 representing low or negative feelings and 10 representing high or positive feelings (see Appendix H).

Observations

Observations were taken at class visits before the intervention, during the mindfulness lessons, after the lesson, and at the completion of the program. Observations consisted of jottings, reflexive researcher notes, and notes as to the nature of the student’s lived experience while practicing mindfulness strategies (Emerson et al., 2019).

In the two months prior to the intervention, six 45-minute observations were completed in the PE setting. During the study, participants were observed in both their PE class and in the mindfulness intervention lessons. Thirty-minute observations of the participants in their PE class occurred before and after every weekly mindfulness lesson.

Journal Entries

Journal entries were voluntary, but participants were encouraged to complete one each week outside of the mindfulness lessons. The prompts given mirrored an aspect of the weekly lesson. Students were instructed to answer the prompt or write freely on the pages provided. Participants were also encouraged to draw or color in their journals. Examples of prompts include (a) “What in your life do you feel like you have control over that happens to you?” and (b) “Over what in your life do you know you have little to no control?” See Appendix F for all journal prompts. All journal entries were coded and copied.

Final Interview

The final interview was a recorded semi-structured interview. See Appendix J for all questions. Students were asked these main questions, “Do you think PE should include more activities that help students with increasing their knowledge and skills of well-being?”; “What did you learn in the study that you did not know before? Have the lessons added to understanding more about how to cope and given you strategies when you are in a difficult situation?”; and “How do you relate to stressful situations? Is this the same or different before we started the mindfulness lessons?” The interviews were conducted individually and face-to-face. Interviews were audio-recorded and transcribed in a Word application. The transcription of each interview was provided to each participant for member checking. Interviews then underwent a rigorous process of open coding (Saldana, 2012).

Analyses

As Miles et al. (2014) recommend, data analysis began when data collection began, allowing the research to continue evolving and challenging any assumptions I may have had as the researcher. In the first cycle of coding, in vivo coding was used, initially noting repetitive phrasing used by the different participants across all data units. During the second cycle of coding, pattern coding was used to group the data, which yielded themes of the participants’ experiences. Finally, inferential coding, or axial coding, aimed at challenging the interpretations of the findings, identifying concepts and conceptual links, and discovering key categories through one peer-debriefing session was completed (Miles et al., 2014).

Data analysis occurred throughout the study. The researcher identified words and phrases with each read-through of participant responses (interview, check-ins, journal reflections, interview). The keywords or phrases emerged genuinely, along with themes. The interview transcriptions were member-checked for response accuracy and themes.

Trustworthiness

The researcher maintained a journal with notes and experiences of both being a K-12 teacher and mindfulness facilitator. The mindfulness facilitator had the known biases of being a mindfulness practitioner; however, this also strengthened the trustworthiness for the study. The daily account for student check-ins seems convincing and adds to the credibility of the context-rich student responses in the interviews (Miles et al., 2014). Curiosity towards the phenomenon of daily living is a by-product of long-term mindfulness meditation; this maintained throughout the study and through data collection. Over 25 years of experience as both a high school teacher and a mindfulness instructor allowed for familiarity with the curriculum and quick rapport with the participants without making mindfulness expectations known within the context of each lesson. Reflexivity was used throughout the study to reduce possible researcher bias (Meyer & Willis, 2018). Trustworthiness was further established in creating informed interview questions that tied back into the research questions. Triangulation was established with multiple data sources (observational field notes, student observations, and teacher observations during lessons; Marshall & Rossman, 2016). Confirmability of this research has been demonstrated in the transcription process of each interview by the researcher's explicitness and exercise of self-awareness as much as possible in regard to personal assumptions as they relate to the outcomes of students learning and practicing mindfulness (Miles, et al., 2014). Transferability of this project is supported by the diverse student population that is common in urban settings and the mindfulness integration could be replicated in other educational environments and settings due to the lack of limitations identified (Miles, et al., 2014).

Results

The purpose of this study was to understand the role of mindfulness strategies in adolescent well-being. Secondary PE students' perspectives on the mindfulness program integrated into PE and the effect of mindfulness on students' perceived stress and social emotional learning were explored.

Student Early Perspectives

This intervention explored the effect MBIs had on students' perceived stress and social emotional learning through data collection that can be organized through three different time units: before, during, and after. The participants' perspectives prior to the mindfulness strategies being taught were compared to how they defined stress and well-being and how they coped with their stressors at the end of the study.

On Stress

Depending on the generation from which we grow up, stress has relative characteristics. As a member of Generation X there was stigmatization around identity and threats to that identity. Today's adolescent appears to have less weight given to similar matters such as gender identify and gender conformity. For example, Generation Z lumped life stressors less into threats of who they are, and more so to their relationships. Students defined stress and well-being and listed the ways they managed emotions and reduced stressors in life. Student responses to defining stress were similar: stress is burdensome. School, relationships, and family were identified as the main sources of stress. Three students expressed stress in this way, "It's when you have a heavy load on your back for so long that you feel angry and frustrated." Aaliyah explained further stress: "When you have too much to do and not enough time or energy to get over it," and "Something that makes you not be your true self. You feel irritable, worried, and sad." Students gave specific examples of stress they encountered in their worlds: "School should be a safe place, not a place of so much stress," "high school is very stressful at times, teachers need to be more understanding of peoples' situations. I wish teachers knew that not everyone deals with stress the same way," and "Friendships are stressful, especially when the friend is stressed. I need my friends to listen to me when I am getting text messages from my father about an upcoming visit. High school is the most stressful of all the schools."

According to the transactional model, stress is both relational and relative—a person must find ways to use their resources to meet the demands of their own life (Eppelmann et al., 2016). The journal prompts (Appendix F) provided insight into the ways students related to themselves, others, and situations. In response to the first prompt, students shared what it meant to them to be a young person. Although varied, their responses shared common feelings of stress: too much pressure from parents, teachers, and friends, worrying about food at home, doing anything that they dream of, and feeling stressed out a lot.

On Wellbeing

Students' well-being definitions were loosely expressed, although the word "health" or "healthy" appeared in multiple responses. Abby wrote, "Well-being is being able to do activities that contribute to your own sanity." Adolescents realized that their actions contribute to their mental well-being. Cathy revealed that well-being means "being okay, not in a dark state of mind, and nothing is making you feel bad." Tabitha succinctly stated that well-being is the "overall state of your health." Tying health to well-being is relevant in an adolescent's knowledge base and situates PE classes to have more intentional practices and teaching objectives.

Ways of Coping

Coping competencies have been shown to mediate the relationship between stress and the ability to adapt (Eppelmann et al., 2016). Some students noted stress reduction methods including writing and drawing. These coping examples are more aligned with appropriate healthy self-expression for adolescents (Beaumont, 2015). However, most student responses to how they combat stress had two equally telling answers: to sleep and/or listen to music. These are both examples of withdrawal, otherwise known as avoidance coping (Eppelmann et al., 2016). The students also coped by distracting themselves (watching TV or playing video games) and being alone, neither of which utilizes a productive coping strategy. Avoidance is the opposite of learning to adapt and using cognitive strategies (Eppelmann et al., 2016).

Findings

Through analyzing the data, three themes naturally emerged: Emotion and Self-Management, Breath Awareness, and Strategies (Appendix L). In reviewing the final student interview, there were repeated examples of the application of program skills, which resulted in increased emotional and self-awareness, breath awareness, and improved strategies for reducing stress and its impact. The check-ins revealed that each day the students were feeling better or the same but never worse for having engaged in the mindfulness intervention.

Theme 1: Emotion and Self-Management- "I can handle stressful situations."

Management of emotions and self are combined to illustrate students' ways of explaining their world (Merriam, 1998). The term emotional management was used several times throughout the study, and it was observed that the students began using the same language. Aaliyah shared that she will be able to communicate her feelings rather than show them when she is angered or frustrated with the actions of others. "Mindfulness helps the way I think and listen to others. I can handle stressful situations and will avoid dark places in my mind." Abby began internalizing the practice of disassociating with her emotions, "I feel overwhelmed, so I stop for one minute and focus on my breathing. Let this situation come and go." Journal two asked what they felt they had control of or not in their lives. The students gave fewer answers to what they 'have control over' than what they do not. This may indicate that adolescents feel little to no control over what happens to them. It was noteworthy that, after only the second intervention, a few students noted that they have control of their breath, thoughts, and body.

Like separating themselves from the situation through breathing and relaxing, students were able to use their breath with jabs, stomps, and punches to release emotions and feelings in a positive way during a movement exercise. "The dancing was good for me; it surprised me on how I feel about things that happen at school," responded Abbie, one of two freshman students. These actions help regulate past emotions and allow for them to reflect and work through them in a healthy, positive way. Anne, the junior, added, "I'm happier, I'm not like

before,” when prompted about how mindfulness activities had affected them. These comments illustrate that the adolescents in the study became increasingly aware of the impact mishandled stress and emotions can have on them and their well-being and found positive coping strategies to mitigate the negative effects stress may have when internalized.

Theme 2: Breathe Awareness- “Stop and breathe.”

The first two intervention lessons emphasized posture, body, and breath. Breath awareness cultivated knowledge of how the body and brain work without overly scientific explanations. In the final interviews, Nina admitted that she really didn’t know that breathing played such a big part in stress. “Paying attention to the breath for just like a minute is huge for me. I don’t want to yell anymore when I am angry.” Students saw how this knowledge made sense in their lives. “In this PE class, I learned breathing can calm me down. I’ve not had a panic attack since this part of class started.” Breathing is something the students knew that they did all day, every day; however, they were not familiar with the process of slowing one’s breath down or taking breaths intentionally and what it would mean in relation to how they felt.

The fourth journal prompt asked them to explore situations when they caught themselves holding their breath instead of breathing to relax. Half the students have caught themselves holding their breath, avoiding the situation as they were able, and feeling anxious in certain areas of their natural life. Anne stated, “I took a deeper breath when I realized that I was doing this.” When a person can take purposeful breaths during tense situations, more oxygen travels to the brain and body, allowing for relaxation and clearer thinking. Students universally shared that they were given information about breathing that was new to them. Aaliyah stated in the interview that “breathing can help me from yelling.” Mindfulness research suggests that participants who counted their breaths for nine cycles have more self-awareness, are less distracted, experience less mind wandering, and have a better mood (Levinson et al., 2014). Several adolescents in the study described applying the ability to “stop and breathe” as a tool that will help them to slow down and control their actions. Anne revealed that they now “stopped

lashing out at other people.” In these examples, using breathing techniques while performing natural everyday actions increased their ability to slow down and make better choices.

Theme 3: Coping Strategies- “One bite at a time.”

In the final interviews, students voiced stories and anecdotal personal information that brought their ability to cope to light. One student declared that MBIs aligned with what she needed in learning how to cope with the stresses in her life. Many students in high school want this same kind of knowledge. Anne shared that “mindful eating taught me to slow down. One bite at a time, one problem at a time, and one breath at a time.” Cathy stated a desire to “share these things with my best friend, and I worry about my brother who will be here in three years. Stop, let’s breathe together, and hopefully, he will remember.” The process of learning a new skill can be exciting, and the capacity to want to share it with others that you care about is reflective of the knowledge the participants gained. Tabitha, in the ninth grade, put the skills of taking a breath into action during a test and then later at home (self-identified situations of stress), “Just breathing for one or two minutes without doing anything else helps me.”

Many adolescents shared that the breathing exercises surprised them by working. In reflecting on a mindful eating activity, Anne made mindful eating transformational, “One bite at a time is like one thing at a time. Like different things to handle one problem at a time – that’s how I used it.” Nearly all the adolescents in the study reported developing new skills or increasing their emotional and self-awareness. During the interviews, adolescents described increased knowledge, “When you wait a minute, you might see that your emotions are changed. You don’t know they are changing you.” Aaliyah added, “I can’t be the way I was with my boyfriend anymore, he yells at me, and that’s not okay.” Taking the three deep breaths helped them to disengage from the emotions that are real at the moment and allowed them to see that they are not what is happening; they can control their emotional response.

Social Emotional Learning

A sixth journal was added to their journal exercises to explore if mindfulness had an impact on student SEL. This was a self-assessment of the five different competencies of SEL. (Appendix I) It was a one-time voluntary supplement to the journal that was completed towards the end of the study. The relationship skills competency illustrated growing skills of self and emotional awareness and strategies in maintaining positive relationships with friends and family. The statement, "I recognize the feelings of others," demonstrated the attunement derived from practicing mindfulness and was "often" felt by most of the participants. Recognizing how others feel is enhancing not only their own emotional awareness but that shown by others as well. Responsible decision-making was positively reflected in several participants selecting "often" for the statement "I avoid risky behaviors." This represents the development of strategies for handling peer pressure and working through avoidance coping.

Implications

Current literature on adolescents and their perceived stressors supports using healthy coping strategies and to experience greater well-being. However, the literature reveals a gap in using mindfulness programming as a coping strategy and teaching these strategies through the PE curriculum. Using this study's results, we can begin to better understand mindfulness-based strategies within the PE curriculum. Findings from these data can inform future PE curricula and K-12 programming by using established literature and relevant information on adolescents and their stressors and their contextual experiences of learning emotional control.

Discussion

This study identified transformational shifts in participants' overall social emotional awareness and sense of self. The students interviewed experienced some positive benefits from the integrated program. Mindfulness supports individuals' ability to engage positively with their own minds, bodies, thoughts, and feelings, which positively transforms relationships (Roeser, 2014). Most of the participants indicated that they have a better understanding of themselves,

their emotions, how breath attention can work for them, and that they have a choice at any moment to pause and control their actions. Students reported knowing when strong emotions arise, intentional, directed breathing led to calming down, they have a choice in their reactions, and that a new skill (being mindful) is always accessible. The focus attention exercises, such as counting breaths (Levinson et al., 2014), were reported strategies continually used throughout the study. In fact, all students shared their own stories of shifts that had started within them during the study. These shifts varied from relationships to family concerns to taking tests.

Mindfulness integrated into HS PE in as little as 30 minutes per week appeared to support adolescents gaining coping skills that may be beneficial as they move into adulthood. Acquiring skills requires practice and a commitment to want to live a healthier, more productive life. Managing emotions is a crucial asset in any development stage. Students who participated in mindfulness programming are better off than those who did not have it in their PE setting.

Conclusion

Mindfulness-based interventions have shown up in a wide continuum of settings, such as clinical, afterschool, and elementary PE (Mullhearn et al., 2017; Pepping et al., 2016; Pierce et al., 2017; Todd et al., 2019). These findings have implications for the continued development and edification of future mindfulness-based interventions in schools, particularly for youth and adolescents. This intervention illustrated that students positively shifted their relationship to stress, emotional management, and well-being information.

Mindfulness studies such as these may have a greater impact when studied over longer periods of time and have the potential to be associated with improvements in mental and physical well-being. This 6-week study had a positive effect on the adolescent participants and could be integrated into a wide range of physical education programs throughout K-12 and higher education. Adolescents appear to have a clear understanding of stress from their own experiences yet are not equipped with the skills to handle those stressors.

This study's findings both confirm and contribute to previous research on mindfulness as an intervention in high school PE settings. Mindfulness-based interventions can be added to a current curriculum teaching healthy living and active lifestyle objectives.

CHAPTER II: DISSEMINATION

This project had a direct impact on the local school district where it took place. The first dissemination will begin with the school staff and school district personnel. A PowerPoint presentation has been developed and will be presented to the district PE coordinator, campus administrator, school PE teacher, and other staff that the PE coordinator may want to include. The presentation summarizes the study and findings. The following outline is written in first-person, and the subheadings provide references to the specific PowerPoint slides (Appendix M).

Presentation Script

Mindfulness in PE: An Innovative Pedagogical Approach

Introduction (Slides 1 & 2)

Hello! Thank you so much for attending and wanting to learn more about the importance of what was discovered in the exploration of integrating mindfulness into an HS PE class. Today's presentation will be insightful in providing the How, What, When, and Why of integrating mindfulness into your program or classroom. When I state your role in education right now, please raise your hand: Administration, Staff, Teacher, PE Teacher, Professor or college teacher, or a Board of Directors for a local agency.

I am a novice mindfulness researcher; however, I participated in six official research projects and 1,000 unofficial research projects in the past 26 years of being in education. Most of my research has taken place in elementary settings, more particularly in physical education. Why do I want to study mindfulness and its effect on adolescent health and wellbeing?

- Past research participation established a curiosity about the translational impact
- Physical education's principles of study and curriculum requirements have a natural fit
- Health and wellbeing objectives can be met with evidence-based practices such as mindfulness

Objectives of the Presentation (Slide 3):

1. Demonstrate through literature and research artifacts of an innovative study that took place in a high school PE class located in North Texas in an urban school district.
2. Create the inspiration for you and your capacity to build a container for initiating a mindfulness program that will enhance students' ability to cope with stressors, thrive under pressure, and live a life of well-being.
3. Practice a few of the simple strategies of mindfulness and well-being, beginning with you establishing or continuing a present moment awareness that brings you peace and ease.

What is Mindfulness? (Slide 4)

What exactly are mindfulness evidence-based strategies?

- Mindfulness is the practice of present moment awareness and attentiveness without judgment to help ease emotional challenges
- Mindfulness exercises are categorized into two types: focused attention and open awareness
 - Focused attention is more meditative in style (counting breaths, listening to your thoughts, body scans, etc.)
 - Open awareness is practiced by noticing a stimulus (thought, feeling, sensation) and not pursuing it

Benefits (Slide 5)

Mindfulness has an array of benefits, including increased attention, improved focus, cultivating empathy, curiosity versus judgment, savoring experiences, increased awareness of emotions and their influences, and improved wellbeing (physical and emotional health).

Settings for Mindfulness (Slide 6)

Where can mindfulness be explored?

- K-12, College or university settings, and pre-school

- After school programs
- Before school programs
- Summer and Sport Camps
- Organizations, non-profits, corporations, etc
- Professional teams or groups

Who can benefit from mindfulness?

- Adolescents are at a prime age for acquiring and learning accessible skills that can utilize life-long skills
- PE teachers and schools may want to explore integrating their current curriculum with objectives for supporting student's well-being
- Children and youth
- Parents, guardians,
- Teachers, staff, administration
- Leaders, owners, etc.
- Almost everyone except some people who may have an aversion to their internal dialogue

Physical Education TEKS-Mindfulness (Slides 7- 9)

Mindfulness correlations to TX HS PE Standards were detailed in the application process through the local school district. Mindfulness lessons of posture, listening, breath awareness, gratitude and kindness, body awareness, mindful movement, and mindful thoughts were aligned to physical education Texas state TEKS. The PE TEKS that were the most closely aligned, if not perfectly matched, are:

1. PE. The student exhibits a physically active lifestyle and understands the relationship between physical activity and health throughout the lifespan.

2. The continued development of health-related fitness and the selection of individual sports activities that are enjoyable is a major objective of PE courses.
3. Movement. The student applies movement concepts and principles to the learning and development of motor skills.
4. Social development. The student understands the basic components such as strategies, protocol, and rules of individual sports.
5. Physical activity and health. The student exhibits a physically active lifestyle that improves health and provides opportunities for enjoyment and challenge during individual sports.
6. Social development. The student develops positive personal and social skills needed to work independently and with others in individual sports.

Physical education is typically a requirement for graduation; at least 50% of all students will be enrolled in a PE class in their 4 years of high school. Therefore, this presents a unique opportunity. PE can offer innovations in health practices that meet or exceed the expectations of the state standards. These meaningful activities support the state objectives while simultaneously achieving students' increased knowledge and skills towards living a healthy, active lifestyle.

Mindfulness in PE: An Innovative Pedagogical Approach (Slide 10)

The purpose of this qualitative study is to explore the role of mindfulness strategies in adolescents' well-being in secondary PE. This case study plans to provide mindfulness as a strategy to cope with stressors and uncover the effectiveness of doing so in a high school physical education class.

Aim #1: Investigate students' perspectives on the mindfulness program integrated into PE.

Aim #2: Explore the effect of mindfulness on students' perceived stress and social emotional learning.

High School Students (Slide 11)

High school students are experiencing social challenges, academic pressure, and family dynamics that are stressful to manage daily. This age group is developing into young adults with increasing exposure to advancing responsibilities. This project received local approval and UNCG approval from the internal review board that governs study policies and procedures.

Positionality (Slide 12)

The researcher and the mindfulness facilitator were the same person in this study at an urban HS with a diverse population of students (Azzarito & Ennis, 2003). The high school chosen was one of five in the district and was picked for no reason, with the exception I had a pre-existing relationship with parts of the school. The PE teacher was open and receptive to being a part of the study.

Research Setting and Scope (Slides 13 &14)

The scope of the project was 6 weeks in length and 30 minutes per lesson which equaled 3 hours of mindfulness as an intervention. Each week at the beginning of the week, a mindfulness lesson was given. The time during the PE class was after the PE lesson objective was taught by the PE teacher. Participants were removed from the PE class setting and taken to a room a short distance away. Mindfulness lessons were taught in a quiet space to aid in the delivery, autonomy, and groups' needs.

Methods & Data Sources (Slides 15 & 16)

At the beginning of the study, participants filled out an open-ended interview that allowed them to share their knowledge of what stress meant to them, how they currently cope with negative emotions, and what well-being is. Participants were given their own journal for reflective journaling and drawing, which was completely voluntary. The journal had pre-selected prompts, including a coloring sheet of their emotions and an SEL self-assessment supplement. Participants provided daily check-ins (before and after lessons). At the conclusion of the study,

they were all interviewed with semi-structured questions. From the interviews, journals, and observations, this qualitative study provided rich data to help understand the role of mindfulness strategies in adolescents' well-being.

Mindful Schools Modified Curriculum (Slide 17)

The purpose of this study was to explore the role of mindfulness strategies in adolescents' well-being in secondary PE. The mindfulness strategies were derived from Mindful Schools teacher training and were adapted to fit the suggested 30-minute time frame of each lesson. A Chinese proverb that continued to reflect the lesson creation is "Feed a man a fish, and he eats for a day. Teach a man to fish, and he eats for a lifetime." The lessons were based on the researcher's experience of mindfulness research with youth at risk in an urban setting.

Qualitative Data Analysis (Slides 18-20)

The data went through a cyclical process of open coding of the participants' responses during the initial interview, in journals, observations, and interviews. The data were analyzed with reduction through axial coding in which themes emerged and were interpreted. The identified themes were then coded in the data chart.

Results – Themes (Slide 21)

Three themes emerged: Breath awareness, emotional and self-management, and strategies (linked to mindfulness) that can be used to not only cope but keep their stresses low and their joys high.

Findings (Slide 22)

- Students (participants) were impacted by the mindfulness program
- Students generally agreed that the mindfulness PE was helpful with emotions and stressors and cultivating calm
- Students were introduced to six different mindfulness lessons, and each student had their go-to as they considered their future

Conclusion (Slide 23)

Participants gave realistic and powerful details to each of these themes. Generally, students have a better understanding of mindfulness practices and which ones felt the most effective for them. Current literature on adolescents and their perceived stressors supports a need to use healthy coping strategies and to experience greater wellbeing. However, the literature reveals a gap in using mindfulness programming as a coping strategy and teaching these strategies through the PE curriculum. Therefore, using the results of this study, we can begin to better understand the blending of mindfulness-based strategies within the PE curriculum.

Reflection (Slide 24)

Mindfulness-based interventions have shown up in a wide continuum of settings, such as clinical, afterschool, and elementary PE. These findings have implications for the continued development and edification of future mindfulness-based interventions in schools, particularly for youth and adolescents. As was noted above, participants identified transformational shifts in their overall social emotional awareness and sense of self because of participating in the mindfulness interventions in PE.

References (Slide 25)

Thank you for your time and attention! (Slide 26)

CHAPTER III: ACTION PLAN

The outcomes of this integrated school program can be used to increase best practices of a physical education teacher's repertoire and, more importantly, to increase the accessibility of mindfulness to students across grade levels and potentially higher education KIN-related classes. Ultimately, creating an integrated curriculum based on the lessons of the current study will allow for widespread accessibility. Reflection on the results of this innovative program increases administrative buy-in. Administrative buy-in leads to PE teachers having buy-in, and thus students' knowledge and skills of health-related practices are enriched by mindfulness-based exercises.

Conferences

Submissions in KIN/PE-related organizations are important for sharing with a wider audience, such as the Texas Association of Health, Physical Education, Recreation and Dance annual conferences, nearby states' organizations, and national administrative K-12 organizations. The project will be useful in the form of a manual or a simplified curriculum for teachers to use immediately or in the future.

Physical Education Training

Many positive attributes of integrating mindfulness into PE were gathered as an exploratory case study. At the conclusion of my project, I understand better the impact mindfulness can have on adolescents during their PE class. Mindfulness integrated into high school PE supports the well-being of students and their competencies in SEL. By working with the PE teacher in this study, I successfully created the ability to collaborate with other PE teachers across the district. Mindfulness as an evidence-based practice for wellbeing should be considered additionally in kinesiology competencies, programming, and especially with pre-service K-12 PE teachers. As I continue to submit program proposals across kinesiology-based conferences, attendees' awareness will build and increase as it relates to mindfulness and

further begin to translate into many areas of the discipline. The lesson framework developed in this study can be used and explored with other mindfulness in educational pursuits.

Mindfulness Teacher Training

My long-term goal is to create a manual of mindfulness lessons with supportive training modules to allow a broader audience to access this intervention. In addition, I will research the science of implementation and scalability for larger PE enrollment in high school settings. The ability to meet a common norm in urban school districts is to be able to program for substantially bigger PE class enrollment. The research supporting mindfulness as a pillar of wellbeing is ongoing and continuous as PE and kinesiology have not totally embraced the science of its impact, therefore disallowing the transdisciplinary effect on our field. I will focus on building awareness of mindfulness as an essential function in kinesiology at all levels of education.

Future Research

As a form of scholarship, I would like to continue to develop this in further studies. It is my understanding from my research that mindfulness should be included in the mainstream of kinesiology as other health and wellbeing enhancing principles have been adopted. We will know this happens when preservice PE teachers and other health educators who teach wellbeing to young people utilize their knowledge and skills of mindfulness as automatically as they might with topics such as running and yoga.

I am also interested in larger longitudinal studies allowing for the exploration of mindfulness intervention and its impact on the mental health of adolescents. PE and Health educators are charged with increasing pedagogical demands, and the need for addressing wellbeing and SEL is not waning any time soon.

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APPENDIX A: YOUTH RISK BEHAVIOR SURVEILLANCE SURVEY

Mental Health

Adolescents (high school-aged students) have a great deal of stress related to their academic success, family influences, peer pressure, and emotional capacity. As previously discussed, this age of development is crucial in developing their abilities to manage it all and make good decisions.

The adolescent years for many students are problematic, and “school problems are associated with every health risk studied” (CDC, 2020). School problems include sexual misconduct, drug use, violence (fighting, weapons), and mental health (depression, suicide). In the Youth Risk Behavior Surveillance Survey (YRBSS) of 2019, the CDC reported staggering numbers among high school students aged 14-19 years who are making poor health choices with a high prevalence of risky behaviors, experiencing mental health dispositions surrounding suicidal ideation, and/or exposure to bullying, violence, and reluctance to attend school. Aggression shown in the form of fighting results from one’s uncontrollable emotions.

Table A1. Youth Risk Behavior Surveillance Survey (YRBSS) of 2019, CDC

Age Range	Behavior in the past 12 months	Statistic
14-19 Years Old	Been in a physical fight one or more times	24%
	Been bullied on school property	19%
	Missed school because they felt unsafe either to or from at least one day in the past 30 days	~7%
	Reported feeling sad or helpless almost every day for two or more weeks in a row to the point they stopped doing some of their usual activities	32%
	Had seriously considered attempting suicide	17.2%
	Had actually attempted suicide one or more times	7.4%
	Had made a suicide plan	26.1%

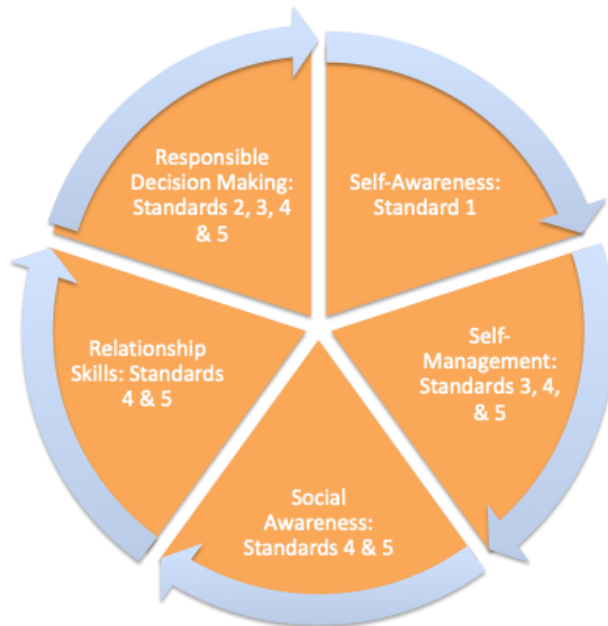
The collection of data on young people participating in school and life in this way is understandably concerning. The hypothesis rests in high school PE becoming enriched with an emphasis on improving skills and knowledge of student mental health in the form of wellbeing principles.

APPENDIX B: SEL & PE CROSSWALK

The wheel delineates the five core competencies of SEL, and the numbers within the pie piece demonstrate the PE National Standards that connect under that learning.

A crosswalk with social emotional learning competencies and SHAPE's national standards demonstrates how effectively they can be paired to meet the requirements. For each PE National standard, there is a corresponding match for the social emotional learning competency. For example, when a learner is performing a PE-based activity, e.g., basketball dribbling, and they have little or no control of more than three dribbles at a time, then they are exhibiting a level of self-awareness. They are not attempting to play on the highest skilled team because they are aware of their abilities.

Figure B1. Social Emotional Learning Competencies Crosswalk



APPENDIX C: SHAPE NATIONAL STANDARDS

The Society of Health and Physical Educators (SHAPE) America has created national standards and grade-level outcomes for kindergarten through twelfth grades. These not only define what our students should be learning but also serve as a framework or guidance for districts across the United States.

Standard 1 – The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.

Standard 2 – The physically literate individual applies knowledge of concepts, principles, strategies, and tactics related to movement and performance.

Standard 3 – The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.

Standard 4 – The physically literate individual exhibits responsible personal and social behavior that respects self and others.

Standard 5 – The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

(SHAPE, n.d.)

APPENDIX D: SKILLS CULTIVATED BY MINDFULNESS TRAINING

Roeser has compiled a comprehensive list of skills and dispositional or trait development that is considered hypothetically cultivated by mindfulness training (Schonert-Reichl, 2016). They are:

- Self-regulation cultivates focused attention, mindfulness, and emotion regulation over mind wandering, mindlessness, and emotional reactivity.
- Self-evaluation cultivates experiential self-awareness, self-kindness, and self-compassion over self-stereotyping and self-judgment.
- Motivation cultivates curiosity and uncertainty-orientation, generosity, and altruism over confirmation bias, self-interest, and in-group favoritism.
- Social cognition cultivates social perspective-taking, empathic curiosity, kindness and compassion, social connection/trust over singular perspective, social stereotyping, social judgment, and social fear/distrust (Schonert-Reichl, 2016).

APPENDIX E: SELF-REPORTING INTERVIEW

Name: _____ Pronouns: _____ Grade: _____ Age: _____

Favorite color: _____ Favorite candy/snack: _____

Open-ended Questions (you can write on the back of this paper if you need more space)

1. In your own words, define what **stress** means to you.
2. What types of activities have you been doing that help reduce or take away the feelings associated with stress?
3. In your own words, describe what wellbeing means to you.
4. What types of activities do you practice that help brings you happiness or feelings of contentment?
5. Who lives with you?
6. What do you like about high school?
7. What do you like least about being in school?
8. What dreams do you have for yourself?
9. What do you think you will get out of participating in the study?
10. Is there anything else you would like for me to know about you?

Thank you!

APPENDIX F: JOURNAL PROMPTS

1. What does it mean to you to be a young person these days?
2. (a) What in your life do you feel like you have control over that happens to you?
(b) What in your life do you know you have little to no control over?
3. (a) Gratitude Practice: Thinking about who or what matters the most to you – you might want to place your hand on your heart. Write down the names and actions of those who have had the biggest impact on your life up to this point. You may name objects, accomplishments, relationships, and pets that mean a lot to you.
(b) Coupled with the gratitude practice, please complete a body scan. Notice any tension or tiredness in your body and send appreciation to these same body areas for the work and stability they give you daily. Select the colors that best represent your feelings (anger, sadness, happiness, love, and fear) and color in the areas of the silhouette where you feel these in yourself. This practice of self-awareness will be used throughout our time together.
4. Breathing is good: Amazingly, we can forget just to breathe. Have you caught yourself “holding your breath” in a tense situation, exactly when a breath would help you relax? Tell me more.
5. Beautiful blossoms, but the pollen makes you sneeze. List three things in your life that require holding space for both their beautiful/valuable side along with some real challenges.
6. Mindful sits allow us to take a moment and notice what is happening on the inside of us. No one can truly know you better than you know yourself. Do you notice your thoughts drifting to the past or to the future? What do you think this is saying about what you want or wish for yourself?

Consider the following areas and indicate where you see yourself: self-awareness, self-management, social awareness, relationship skills, and responsible decision making.

Extra

What does it feel like or look like when all the world is right, and you are having a good day?

What does it feel like or look like when all is going wrong or kinda wrong; either way, you are not having the best day?

Learning to cope with stress in a healthy way will make you, the people you care about, and those around you become more resilient. Identify your stress triggers.

For a week or two, record the situations, events, and people who cause you to have a negative physical, mental or emotional response. Include a brief description of each situation, answering questions such as:

Where were you? • Who was involved? • What was your reaction? • How did you feel?

“It’s key to recognize stressful situations as they occur because it allows you to focus on managing how you react,” Dr. Stoll says. “We all need to know when to close our eyes and take a deep breath when we feel tension rising.” When is a good time for you to practice this?

Sundown Threshold: Catch yourself at sundown, light fading from the sky. What does the arrival of night trigger or bring up for you?

Press Delete: Whenever we have a negative interaction with someone, we sometimes play it over and over, setting ourselves up with a script of high drama. What if you just pressed delete?

Autumn is Nap Weather: What gets in the way of your resting deeply for a sufficient amount of time? List three things you can do to support yourself in the fine art of being well-rested.

Zen circle: Draw a circle, beginning at the bottom, and not quite closing it as you come around. Leave a little space for the viewer to complete it in their mind. Where else in your life might you leave that small space that lets others in?

APPENDIX G: MINDFULNESS LESSONS 1-6 STRATEGIES & PRACTICE

Table G2. Mindfulness Lessons, Strategies, and Practice

Lesson	Strategies	Practice
1: Introduction: what we are doing/not doing	Mindful bodies and listening (posture, breath awareness, listening)	Mindful listening, 5 minutes - breath awareness; 5 minutes – open awareness
2: Mindfulness of Breathing	Feel your breath 3 ways and explore what you are in control of	10 minutes – count breaths, change the tempo of exhale, recognize thoughts, Journal. Q & A
3: Heartfulness	Sending Kind Thoughts or friendly wishes	10 minutes – focus on your breath, practice self-compassion and gratitude in your journal
4: Body Awareness	Body sensations and Feel your Emotions activity	10- minute Body scan; 3–5-minute journal of what was noticed
5: Mindful Movement	Bodily slow-motion articulations bring awareness to muscular movement and sensations, slowing down the automaticity of an everyday action.	Upper body yoga postures; 3-5 minutes of rising from a seated position – following the breath and slowing the breath. Assessing this awareness. Q & A
6: Mindfulness & Thoughts	Open awareness: noting and monitoring “Past – Future.”	5 -Minute Sit: thoughts arise when we are not focusing on our breath (label them past or future). Journal. Another 5-minute sit. Note what arises. Journal. Q & A

APPENDIX H: DAILY CHECK-IN

Mindfulness in PE: Intervention Daily Check-In

How do you feel, or how is it going? Happy, content, stressed, confused, or okay.

Name - Coded	Date	Before	After

Daily Observation:

Date:

Time:

What did the PI notice before or after the mindfulness lesson? _____

Not a mindfulness intervention day. _____

APPENDIX I: RESULTS OF SELF-RATING ON SEL COMPETENCIES

Self-Awareness

	Rarely	Sometimes	Often
I know my own strengths and limitations	0	3	3
I can identify the emotion that I am feeling at the time.	0	4	2
I admit my mistakes and learn from them.	1	0	5
I know when I need to take some time away from a situation.	1	0	5
I feel confident in new situations.	2	4	0
I know what emotions help or hinder my ability to problem-solve.	1	3	2

Self-Management

	Rarely	Sometimes	Often
I can choose from a range of behaviors those that best fit a situation	1	3	2
I have constructive ways of resolving conflict.	1	3	2
I am able to control my impulses.	1	2	3
I find healthy ways to deal with stress.	1	5	0
I demonstrate patience in most situations.	2	3	1
I can set, manage, and achieve my goals.	0	3	3

Social Awareness

	Rarely	Sometimes	Often
I enjoy other people and can celebrate their success.	0	1	5
I am able to identify the feelings of others.	1	2	3
I am able to see things from the perspective of others.	1	1	4
I notice the social behaviors of others and can offer helpful suggestions when appropriate.	0	1	5
I work well with people of all cultures.	0	0	6
I can demonstrate strategies for working well with others.	0	3	3

Relationship Skills

	Rarely	Sometimes	Often
I listen carefully to others in order to gain understanding.	0	3	3
I think about the impact of my words before speaking.	1	2	3
I am assertive.	0	3	3
I value the opinions of others.	1	0	5
I recognize the feelings of others.	0	1	5
I am able to express myself in a way that is understood by others.	2	4	0
I am able to state my opinions without judgment or blame.	0	3	3
I spend time with people I like.	0	1	5

Responsible Decision Making

	Rarely	Sometimes	Often
I weigh the pros and cons of a situation before making a decision.	2	3	1
I consider what impact my decisions will have on others before taking action.	2	3	1
I evaluate the consequences of my actions before making a decision.	2	3	1
I avoid risky behavior.	1	0	5

APPENDIX J: STUDENT FINAL INTERVIEW

Interview of Participants at the Conclusion of the Study – (Semi-structured)

1. Mindfulness has been proven to contribute to people's well-being. Do you think PE should include more activities that help students with increasing their knowledge and skills of well-being?
2. What did you learn in the study that you didn't know before? Have the lessons added to understanding more about how to cope and given you strategies when you are in a difficult situation?
3. Of the activities that were associated with lessons which one do you think you will remember to do in the future?
4. How do you relate to stressful situations?
*Is this the same as before we started the mindfulness lessons?
5. What do you think teachers need to know about high school students and stress?
6. If you were given the chance, what would you share with another high school student about coping skills and stress's impact on wellbeing?

APPENDIX K: TEACHER INTERVIEW QUESTIONS

Interview with the PE Teacher at the conclusion of the study

1. In your opinion, what have you changed about your approach to curriculum in the past 5 years?
2. From your perspective, what is an issue that you feel is within your control as a PE teacher?
3. What is something that is not within your control that you wish administration (TEA, local board, etc.) would change?
4. Outcomes of this research in mindfulness integrated into PE (SEC) may vary somewhat; however, there is a strong chance that it will have a positive effect – if so, will you consider or have a likelihood of modifying your current practices?
5. The research study was made up of students who were able to get consent from their parents – were there other students you wanted to see participate?
6. Based on your observations, did the students in the study demonstrate social emotional well-being? Do you have any examples that come to mind?

APPENDIX L: DATA COLLECTION SORTED INTO THEMES

KEY: Beginning Interview (BI) Journal (J) Observation (O) Final Interview (FI)

Theme I: Breath Awareness

Before the Intervention

BI	Did not know how breathing could help them calm down
BI	Did not know that focusing on your breath could help them with stress
BI	Did not become fully aware of how taking moments or 3 breaths of practice would change them

During the Intervention

O	One minute of listening to environmental sounds was relaxing/calming/good
O	One minute of focused breathing went fast
O	After practicing inhale 4 count-exhale 4, then 4-8, they picked the one for 3 breaths
O	Box breathing was good for some & not for 2; 3 breaths are easier than focused breathing
J	Emotions in J2
O	Breathing during the body scan was noticeable during observation
J	After 3 breaths together, they wrote about an emotional event that happened that day
J	3/6 caught themselves holding their breath, taking a deep-slow breath helps, especially when I feel angry or overwhelmed; emotional anxiety
J	Holding our breath brings on emotions
O	Arms up and down for physical breathing, they stated that this could be easier than just breathing some days
O	Breathe-jab, breath-stomp, breath-punch, chest popping for breathing = 3 participants shared their experience of revisiting an emotional episode today

After the Intervention

FI	Breathing through stressful situations helped
FI	Breathing for as little as one minute calmed me down
FI	Breathing during tests of conflicts helped me see the other side of stress
FI	Stopping and breathing has been helpful in this PE class
FI	Stopped lashing out at other people.
FI	I've not had a panic attack since this part of class started

Theme II: Emotional and Self-Awareness

Before the Intervention

BI	Stress made me feel overwhelmed
BI	Too many expectations
BI	Not able to handle emotions
BI	Stress makes you not be your true self
BI	I feel piled upon by all the things in life

During the Intervention

O	Sitting for 60 seconds the first time went fast
J	I can focus on one thing at a time & that makes me feel calm
J	I feel stressed a lot from pressures of parents and teachers

J	I can do anything I dream
J	I hide emotions
O	Participant said she hears herself thinking now, she knows her emotions get in the way of learning and having a positive experience at school.
O	Sitting is hard because no one ever taught us this before
J	Know what they can control and the things they cannot
J	She was thankful for learning mindfulness, it's already helping me to be happy
J	Past thoughts are strong and take over when I am sitting.
J	Holidays bring stress & frustration
J	Many have caught themselves holding their breath & now take a deep breath during times of stress or situations
O	mindful eating exercise—some shared that they don't eat at lunch or have chips only
O	mindful eating exercise—they are with friends at lunch & eat junk food together really fast
J	Where Do I Feel – coloring activity allowed participants an opportunity to identify and color code where they feel certain emotions, each one was different
O	Mindful Movement – Krump dancing demonstrated more breaths, identifying emotions after the fact, 3 participants shared theirs (they never share a lot openly), one participant shared that she felt so much better after having done this
J	SEL self-assessment – showed that participants have self-knowledge of who they are in certain situations and overall generalized sense of self
CI	Participants consistently feel better after the lesson and a few felt the same which was not a low word or number (Daily Check-Ins)

Mindful Movement Activity – Each Participant's Written Account

Q1. What is an emotion that you have experienced today?

Q2. What action did you take when you felt it?

Q3. What do these actions say about you and how you are handling your emotions? Do you need to take more breaths in between what happens and what you do?

Q4. Write your ultimate goal for yourself in this life. What do you wish to know or have control over in the coming year?

P1 (17 yo)

1.	I feel disappointment
2.	I got really quiet and kind of shut down.
3.	I don't face my emotions head-on, I bottle them up.
4.	My goal is not to let anyone ruin my peace and happiness.

P2 (14 yo)

1.	I feel okay
2.	I'm just chill today
3.	I feel like I suppress my emotions a lot because I don't want people to worry
4.	In life, I want a good job, home, and to live a life I can remember. I don't want to waste it. In this year, I want to end it on a good note and go into 2022 happily.

P3 (14 yo)

1.	Today I felt happy
2.	I laughed a lot from how happy I was
3.	Laughing helps me feel even better and helps me feel more open and relaxed.

4.	I wish to be able to handle my emotions better, especially my anger because I get annoyed at very little things.
----	--

P4 (15 yo)

1.	I have mostly felt angry, frustrated, and worry
2.	I had to breathe slowly to stop myself from panicking. I'd probably scream.
3.	It helps me calm down. I've been having anxiety all day today, and it's been on my mind the whole day sometimes I feel like throwing up.
4.	I need to be more self-loving. I need self-control.

P5 (18 yo)

1.	Excitement
2.	I hugged her, I cried.
3.	They say I'm a good friend.
4.	I wish to become the best me before December 31st, 2021.

P6 (15 yo)

1.	Joyful
2.	Be with my friends that made me laugh and that made me joyful. I smiled at my friends and boyfriend.
3.	I can get joyful when my friends make laugh. Sometimes I do need to breathe when something happens in my class.
4.	My ultimate goal is just making music. I want to post music I'll make.

After the Intervention

FI	Emotions change us
FI	Breathing can keep me from yelling
FI	Mindful eating = one bite, one thing at a time
FI	Forgive old friends
FI	School and Teachers bring me the most stress
FI	Need to make better choices for my mental health
FI	Stress keeps me from doing my best or feeling happy
FI	My anxiety was not there at Walmart
FI	I'm happier, I'm not like before
FI	The dancing was good for me, it surprised me of how I feel
FI	I am thankful
FI	Mindfulness helps the way I think and listen to others. I can handle stressful situations and will avoid dark places in my mind.

Theme III: Strategies Learned

Before the Intervention

BI	Music and sleep had the most listed
BI	Writing and drawing were second in listed
BI	Eating and getting distracted were the last

During the Intervention

O	She hears herself thinking now.
O	She knows her emotions get in the way of learning
J	I know I have control of my breath & feelings. Others are not in my control.

O	Taking breaths throughout the day more than sits at home.
O	After the mindful movement activity, participant stated that movement like this made me feel better right now.
J	J4 – they are catching themselves holding their breath 3/6, learning that moments like this need a deep breath
O	Mindful eating is like what she said, I am going to take one thing at a time, not eat the whole thing.
J	That with all good things there can be challenges to it (boyfriends, band, family)
O	Participant shared that she wanted to try out for softball because she used to play a long time ago.

After the Intervention

FI	Mindful breathing is for sure the one thing I am going to keep doing
FI	Mindful breathing time frames differed slightly for each participant; however, some said they liked how they felt in one minute, and others commented that 4-5 minutes seemed to be right
FI	Mindful eating is an exercise that they will continue doing when they remember
FI	Being grateful for the things I have is something I can focus on
FI	How I think about stress has changed
FI	Breathing during stressful events
FI	Make choices for myself that are better for me (friendships and boyfriends)
FI	When I stop and breathe, I know I will feel less stressed
FI	Just breathing for one or two minutes without doing anything else helps me.
FI	When you wait a minute, you might see that your emotions are changed.

APPENDIX M: DISSEMINATION POWERPOINT SLIDES

SLIDE 1

Mindfulness in PE: An Innovative Pedagogical Approach

Crystal Reimer, Doctoral Candidate, UNCG

Welcome!

You are here if you are:

A district or campus administrator, PE Teacher, MISD Board of Director, MISD Personnel, or interested in learning what kind of research can be accomplished in a semester.

Hello! My name is Crystal Reimer.

I am a doctoral candidate at UNCG in the KIN EdD online program.

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Crystal Reimer, Doctoral Candidate, UNCG



SLIDE 2

Mindfulness in PE – The Why

Who Am I?

Why did I Research Mindfulness in PE?

- I am interested in knowing and better understanding the impact that mindfulness can have on a variety of populations
- In the literature on mindfulness, the health benefits are well established
- In my history of being an elementary PE teacher, I would integrate mindfulness practices into my classes
- I noticed many characteristics of transfer students into the school setting
- I felt that PE is a natural place for mindfulness to be implemented

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SLIDE 3

Presentation Objectives

1. Share an innovative study that took place in a high school PE class located in North Texas through literature and research findings.
2. Create inspiration for you to consider initiating a mindfulness program in your school or school district, especially with PE as a potential setting.
3. Practice a few strategies that are representative of the ones featured in the study in an effort for you to know how it may feel to have been in the study.

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SLIDE 4

Mindfulness is...

Take a moment and write down what mindfulness is or what is associated with it.

Mindfulness is the practice of present moment awareness and an attentiveness without judgement to help ease emotional challenges.

Mindfulness exercises are categorized in two types:

Focused attention

Open awareness

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SLIDE 5

Mindfulness Benefits

Increased attention	Improved focus	Cultivated empathy	Curiosity versus judgment developed
Savoring foods, visual field, and experiences	Increased awareness of emotions and their influences	Improved factors of wellbeing	

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SLIDE 6

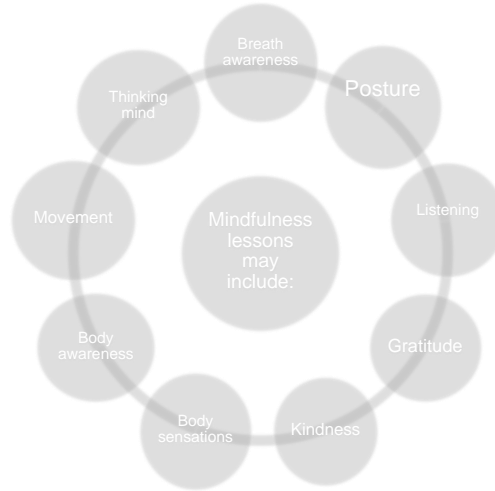
Settings for Mindfulness

Schools	Higher Education	After school programming	Before school programming	Summer school
Sport, art, experiential, adventure camps	Special Education	Organizations	Corporations	Professional teams or groups
The list is endless...				

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Mindfulness in Physical Education



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Physical Education TEKS - Mindfulness

- I. The student exhibits a physically active lifestyle and understands the relationship between physical activity and health throughout the lifespan.
- II. The continued development of health-related fitness and the selection of individual sport activities that are enjoyable is a major objective of PE courses.
- III. Movement. The student applies movement concepts and principles to the learning and development of motor skills.
- IV. Social development. The student understands the basic components such as strategies, protocol, and rules of individual sports.
- V. Physical activity and health. The student exhibits a physically active lifestyle that improves health and provides opportunities for enjoyment and challenge during individual sports.
- VI. Social development. The student develops positive personal and social skills needed to work independently and with others in individual sports.

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SLIDE 9

High School PE

50% of HS students will take at least one physical education class in the four years they attend, presenting a unique opportunity.

PE can offer innovations in health practices that meet or exceed the expectations of the state standards.

These meaningful activities support the state objectives while simultaneously achieving student's increased knowledge and skills towards living a healthy active lifestyle.

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SLIDE 10

Mindfulness in PE: An Innovative Pedagogical Approach

The purpose of this qualitative study was to explore the role of mindfulness strategies in adolescent wellbeing in secondary PE. This study provided mindfulness as a strategy for coping with stressors and sought to explore the effectiveness of doing so in a high school physical education class.

Aim #1: Investigate student's perspectives on the mindfulness program integrated into PE.

Aim #2: Explore the effect of mindfulness on student's perceived stress and social emotional learning.

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SLIDE 11

High School Students

- Are experiencing social challenges, academic pressure, and family restructuring and dynamics that are stressful.
- This age group (adolescence) is being exposed to responsibilities that are beyond their managerial skill levels.

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SLIDE 12

Positionality

The researcher and the mindfulness facilitator were the same person in this study at an urban HS with a diverse population of students.

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SLIDE 13

Setting

Local urban school district supportive of the study
Administrative approval at district and campus level
PE Teacher who was interested, flexible and open minded

Urban high school – 1 semester PE course

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SLIDE 14

Scope of Research Project

- 6 weeks in length
- 30 minutes (of a 90 minute blocked class) each week
- Mindfulness intervention after between 2 PE lessons
- Mindfulness class separate for interventions

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Methods & Participants

- The research design of this study follows a qualitative method in the genre of an interpretive social constructivist approach (Azaritto & Ennis,2003).
- The entire PE class enrollment (38) was invited and given a consent/assent to participate in a six-week long study of a coping-with-stressors intervention.
- The mindfulness intervention group was made up of ~8 female students ages 14-18 years old, 6 participants completed the study
- Each week on the first A day of the week (A-B block scheduling), participants were removed from the PE class and taken to an alternate room for the 30-minute mindfulness session.
- Each session was made up of participant's questions, group discussions, researcher questions pertaining to the mindfulness strategies, journal writing, and the mindfulness lesson.

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Data sources – Qualitative

Interview	Journals	Daily check-ins	Observations	Final interview
<ul style="list-style-type: none">• Open-ended and given at the beginning of study	<ul style="list-style-type: none">• prompts, voluntary participation			<ul style="list-style-type: none">• semi structured

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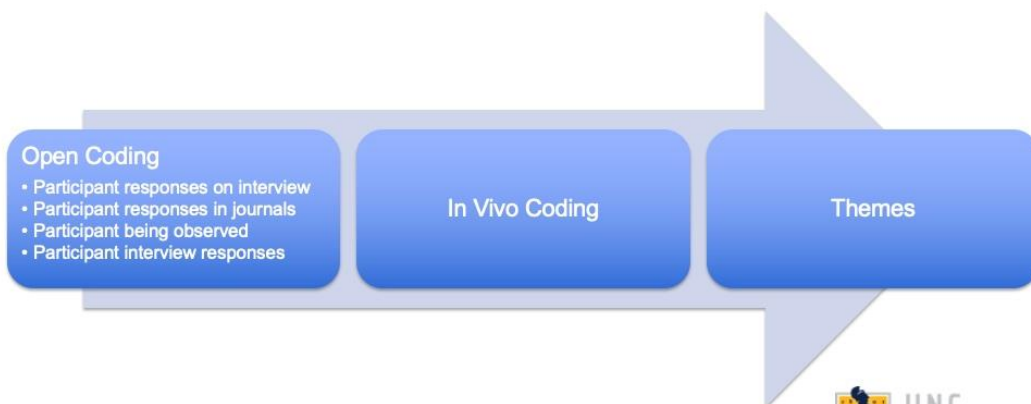
Mindful Schools Modified Curriculum

“Feed a person a fish, they eat for the day.
Teach a person to fish, they eat for a lifetime.”
Chinese Proverb

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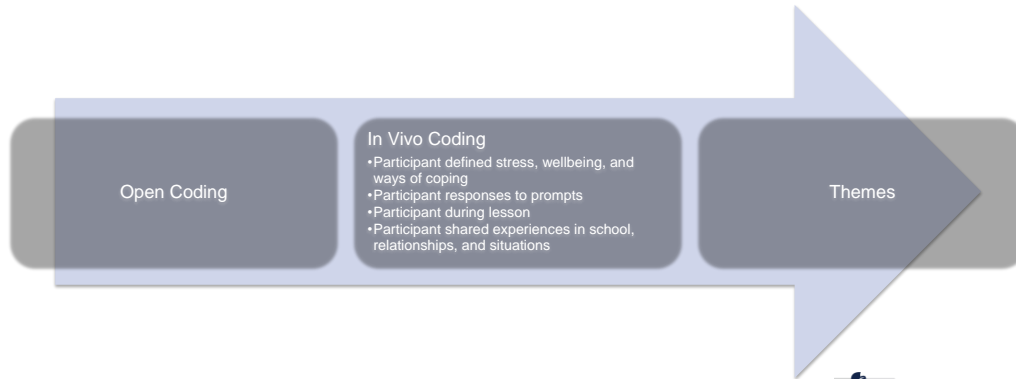
Qualitative Data Analysis



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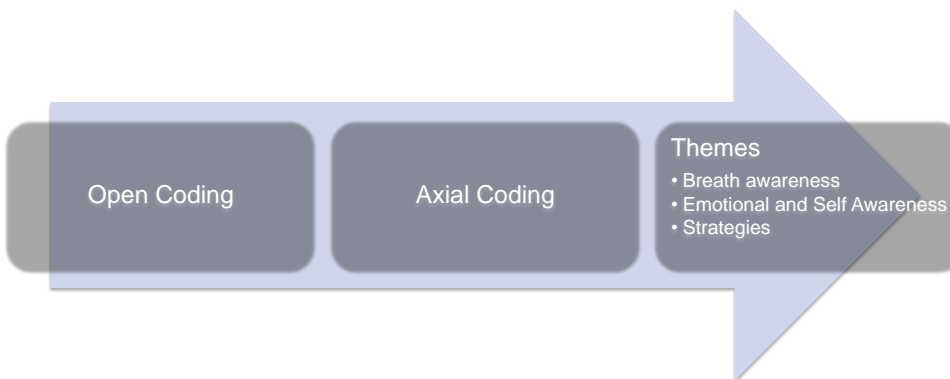
Qualitative Data Analysis



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Qualitative Data Analysis



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Results - Themes

- attention to how one feels
- awareness of individual response and student autonomy

- individual skills developed through intentional exercises

- mindfulness-based exercises
 - sitting
 - listening
 - loving kindness
 - body scan
 - eating
 - mindful movement
 - labeling thoughts

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Findings

- Students (participants) were impacted by the mindfulness program
- Students generally agreed that the mindfulness interventions were helpful with emotions, stressors, and cultivating calm
- Students were introduced to six different mindfulness lessons and each student had their go-to strategy as they considered their future

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Conclusion

Current literature on adolescents and their perceived stressors supports a need to use healthy coping strategies and to experience greater wellbeing.

However, the literature reveals a gap in using mindfulness programming as a coping strategy and teaching these strategies through the PE curriculum.

Therefore, using the results of this study we can begin to better understand the blending of mindfulness-based strategies within PE curriculum.

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Reflection

Mindfulness based interventions have shown up in a widespread continuum of settings, such as clinical, afterschool, and elementary PE (Todd et al., 2019; Mullhearn et al., 2017; Pierce et al., 2017; Pepping et al., 2016).

These findings have implications for the continued development and edification of future mindfulness-based interventions in schools, particularly youth and adolescents.

Participants identified transformational shifts in their overall social emotional awareness and sense of self because of participating in the mindfulness interventions in PE.

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Thank You!

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Please let me know your questions, comments, etc.

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